

**GOVERNMENT OF KERALA**

**DRAFT  
SIXTH FIVE YEAR PLAN 1980-85  
AND  
ANNUAL PLAN 1981-82**

**VOLUME I**

**STATE PLANNING BOARD**

**TRIVANDRUM**

DRAFT  
SIXTH FIVE YEAR PLAN 1980—85  
AND  
ANNUAL PLAN 1981—82

VOLUME—I

PLANNING BOARD

TRIVANDRUM

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## CHAPTER I

### INTRODUCTION

Since the formation of Kerala nearly 25 years ago successive Governments in the State have generally followed a welfare approach to development. The spread of education and health services started by the earlier princely states was intensified and also extended to the Malabar area. Since the birth of the State coincided the coming into power of political parties with progressive ideologies, the demands of organised sections were given sympathetic consideration. Over the years, several welfare measures for the old, the unorganised workers and the unemployed have been initiated. As a result of all this, investment in human capital measured by levels of literacy, education, health services, water supply and so on, is the highest in Kerala in the country.

1.2 There has been considerable advance in creating the infrastructure for development, as investment on social overheads has been quite substantial in the State's Plans. In the availability of electric power, in communications and in the availability of an educated workforce with varied skills, the State is quite advanced. The tertiary sector has grown fast and its services are available to the producing sectors.

1.3 However, in agriculture, growth has been meagre despite the structural changes that have been brought about through land reforms and other measures. In some of the districts, growth in the agricultural sector has been sagging in recent years, mainly due to the widespread disease affecting production of coconut, the principal cash crop in the State. In the industrial sector, the technologically and managerially backward traditional industries have been struggling hard to survive in the face of rising costs. The growth of modern industry has been very slow and it has been unable to absorb even a small fraction of the growing number of young people seeking employment. In such a situation, protection of those engaged in traditional industries became a major objective of public policy.

1.4 Low economic growth, in the context of a growing population, has aggravated the already acute problem of unemployment and has resulted in low family incomes and correspondingly low private consumption, even as regards essentials. A study conducted in the State, adopting the poverty norms suggested by the Planning Commission (minimum nutritional requirements of 2,400 calories per person per day in rural areas and 2,100 calories per person per day in urban areas) revealed that about 68 per cent

of the people in rural areas and 78 per cent in urban areas were living below poverty line. Though the study showed that there has been some increase, in recent years, in the consumption expenditure of the lowest population decile, these percentages indicate the extent of poverty in Kerala.

1.5 The unemployment situation has become explosive. According to a recent survey (1977-78) of the State Directorate of Economics and Statistics, 11.5 lakh persons are totally unemployed in the State. About a half of these are educated. A good percentage of the labour force employed in agriculture is under-employed, as employment is seasonal and agriculture is dominated by perennial crops.

1.6 The positive aspects of Kerala's development so far are that a good infrastructure has been created, that there is a large body of intelligent and educated work force available and that land reforms, welfare measures and progressive labour policies have given an egalitarian trend to development.

1.7 Some of the discouraging aspects of performance are that growth has been very slow in agriculture (in its widest sense) and in industry, that the real incomes of a vast majority of people are very low, that unemployment has become pervasive and a proper work-ethic conducive to rapid development has not been evolved. Costly delays in the completion of some of major irrigation and power schemes, under-utilisation of facilities already established and industrial unrest caused by high rate of inflation have not been quite conducive to rapid advances in the reduction of unemployment and the eradication of poverty.

1.8 In the course of coming twenty years, the State has to consolidate and accelerate the stimulating factors and remove the barriers to rapid progress. Given the necessary political will and an environment for the adoption of consistent policies, with dedicated hardwork, the State can achieve rapid growth in agriculture and industry, accompanied by rapid creation of employment opportunities. The achievement of the objectives of growth and employment with social justice should be the paramount concern of public policy and development effort in the coming years, so that poverty will be eradicated at the earliest. The strategic objectives, policy framework and the programmes and schemes envisaged in the Sixth Five Year Plan (1980-85) for Kerala are imbued with this perspective.

## CHAPTER II

### PLAN OBJECTIVES AND PATTERN OF INVESTMENTS

Some of the major objectives of the National Plan for 1980-85 are: a significant step up in the rate of growth of the economy, strengthening of the impulses of modernisation for the achievement of economic and technological self-reliance, a progressive reduction in the incidence of poverty and unemployment, improvement of the quality of life of the people in general with special reference to the economically and socially handicapped population through a minimum needs programme, and progressive reduction in regional inequalities in the pace of development and in the diffusion of technological benefits. The national plan aims at an average annual growth rate of 5 per cent during the Sixth Plan period. Broadly in line with these basic objectives and keeping in view the special features of the State's economy and its development potentialities, the following objectives are laid down for the State's Sixth Plan:

- (i) achieving an overall annual rate of growth of 5.4 per cent so as to bring the State's per capita income as near to the national average as possible by the end of plan period.
- (ii) maximising production in the commodity producing sectors of industry and agriculture through optimum utilisation of the capacities and infrastructure already built up and through an appropriate investment policy.
- (iii) enlarging job opportunities by emphasising employment intensive schemes and projects so that at least one member of every household has regular employment.
- (iv) conceiving local level schemes and projects based on material and manpower resources through decentralisation of the planning process and through ensuring popular participation in the formulation and implementation of plan programmes.
- (v) bringing about a more balanced regional development through more effective exploitation of resource endowment of different parts of the State.
- (vi) strengthening the public distribution system in the State through the introduction of efficient and socially relevant marketing techniques so as to develop it into a stable and permanent feature of the strategy to control prices of essential commodities and also to achieve equitable distribution.
- (vii) ensuring that the poorer sections of the society including Harijans and the tribal population, get an increasing share in the fruits of development.
- (viii) initiating measures to ameliorate the conditions of living of the weakest sections like the unemployed, the aged agricultural workers, disabled etc. by giving direct financial assistance.

2.2 In order to achieve the objectives the necessary political will is essential and a consistent and co-ordinated set of policies and programmes have to be adopted over a period of time. The State Government would also need the liberal support of not only the Central Government by way of adequate plan assistance and direct Central investments, but also adequate help from the all-India financial institutions and nationalised commercial banks. It is also necessary to attract private investments on a much larger scale than hitherto, by improving the efficiency of overhead facilities and by appropriate promotional efforts, and fiscal inducements.

2.3 To work out the investment-income projection for the next five years, a quick estimate of state income data for the year 1979-80 has been worked out on the basis of certain assumptions regarding inter-sectoral growth rates during the two years 1978-79 and 1979-80. The estimates of sectoral incomes for the year 1979-80, thus arrived at are furnished in Table 2.1 below.

TABLE 2.1

*Sectoral Income Estimates—Kerala*

*(Rs. in lakhs)*

<i>Sector</i>	<i>State income for 1977-78</i>	<i>Projected State income for 1979-80 at Current prices</i>
(1)	(2)	(3)
1. Agriculture	109093	112388
2. Mining and Manufacturing	32279	37282
3. Electricity	4612	5587
4. Transport and Communications	16562	19050
5. Others	78030	91396
All Sectors	240576	265703

2.4 In order to project the income for the terminal year of the five year period (1980-85), it is necessary to estimate a feasible range of sectoral growth rates for the next five years. Assuming that the annual sectoral rate of growth follows an exponential path, for each sector an exponential model has been fitted using the State income data for the period 1960-61 to 1974-75 at constant prices. On the basis of this model the growth rates for the years 1980-81 to 1984-85 have been projected for each sector. These estimates of growth rates provided the first approximations and they were subjected to an iterative process on the basis of different assumptions in regard to the growth path

envisaged during the plan period to arrive at an optimum overall growth rate. The assumptions regarding the growth path will have to take into account the overall objectives that are sought to be achieved by the Plan, the growth potentials of different sectors as well as the resource constraints.

2.5 The sectoral profile of growth that emerged from the exercise is presented in Table 2.2

TABLE 2.2

Sector	<i>Targeted growth rates per annum during the period 1980-85.</i>
(1)	(2)
1.. Agriculture and Allied Sectors	3.5
2.. Mining and Manufacturing	8.0
3.. Electricity	6.0
4.. Transport and Communications	7.0
5.. Services	6.0
All Sectors	5.4

2.6 The overall rate of growth per annum during the plan period works out to nearly 5.4 per cent. To estimate the investment requirements so as to bring about this annual growth rate during the period certain assumptions have to be made regarding the investment income coefficients for different sectors. In the Draft Sixth Five Year Plan (1978-83) document of the Planning Commission, it had been suggested that the incremental capital-output ratio for the country as a whole might be taken as 4.85. In the absence of other reliable data this incremental capital-output ratio is assumed to hold good for the State also. Applying the sectoral incremental capital-output ratios to the envisaged sectoral incremental incomes, estimates of investment requirements of different sectors have been worked out. If the state income is to register an increase of 54 per cent per annum during the period 1980-85 then it should increase from Rs. 2657 crores in 1979-80 to Rs. 3444 crores in 1984-85, the terminal year of the Plan, showing an increase of Rs. 787 crores at 1979-80 pices. This would necessitate an investment outlay of Rs. 3900 crores during the five year period. The Plan needs to provide, besides the investments in fixed assets the matching investment in stocks also. Including this the investment requirement may be estimated at around Rs. 4100 crores.

2.7 An analysis of the investment pattern during the Fourth and Fifth Plan periods indicates that private sector investment in Kerala accounted for not more than 35 per cent of the total investment in the economy. In view of the accumulation of surpluses in recent years in the hands of a relatively large number of persons, it is assumed for the time being that the private investments would account for 40 per cent of the total investment envisaged during the five year period 1980-85. Thus out of the total investment outlay of Rs. 4100 crores, the private sector investment would be of the order of Rs. 1600 crores. The balance outlay of Rs. 2500 crores would have to be met by the State and

Central investments taken together. Taking into account the tempo of State Plan expenditure during the first year of the Sixth Five Year Plan viz. 1980-81 the share of the State in the investment outlay may be reckoned at about Rs. 2000 crores. The residual amount of Rs. 500 crores is proposed as direct Central investment during the Sixth Plan period. The broad sectoral distribution of the State Sector investment of Rs. 2000 crores is presented in Table 2.3

TABLE 2.3

Sector	<i>State Sector Investment Estimated for the Period 1980-85</i>	
	<i>Rs. crores</i>	<i>Percentage</i>
(1)	(2)	(3)
1. Agriculture including Irrigation	739	36.95
2. Power	343	17.15
3. Industries and Minerals	229	11.45
4. Transport and Communications	167	8.35
5. Social and Community Services	522	26.10
Total	2000	100.00

2.8 When investments of the order of Rs. 4100 crores materialises in the economy during 1980-85, the State will be poised for a higher rate of growth in the subsequent quinquennium. An exercise carried out in this context shows that during the Seventh Five Year Plan (1985-90) the State can achieve a 7 to 8 per cent growth rate per annum with a total investment in the range of Rs. 7000 to Rs. 7500 crores during the Seventh Plan.

2.9 Of the Plan objectives enunciated, the vitally important one is the creation of more employment opportunities during the Plan period. The sectoral objectives of the Plan have also been formulated with a view to giving primacy to the generation of substantial employment opportunities in the economy. Realisation of the employment objective depends crucially on increased labour absorption in agriculture and allied activities as well as in the modern industrial sector. According to the National Sample Survey conducted during the year 1972-73, the estimate of unemployment in equivalent person years is 183.23 lakhs for the country as a whole and 18.42 lakhs for Kerala. A standard person year is taken as the work put in by one person in a full year of 273 working days. The share of Kerala in the total all India unemployment and under-employment works out to 10.06 per cent. An Unemployment Survey conducted in the State in 1977-78 showed that the magnitude of unemployment continued to be more or less the same. Assuming that the unemployment rates obtained from the 1977-78 Survey hold good for 1979-80, it is seen that out of the available labour time equivalent of 86.17 lakh standard person-years in 1979-80, 18.17 lakhs were remaining idle in Kerala. These 18.17 lakh person years represent the total unemployment and under-employment in the State's economy.



2.10 Besides the 18.17 lakh person years equivalent of unemployment and under-employment, the 1980-85 plan for Kerala has to tackle the unemployment problems of the likely additions to the labour force during the five year period. For an estimated population of Kerala of 278 lakhs in 1984-85 the additions to labour force will be 7.73 lakh equivalent person years. As a result of the investment to the tune of Rs. 4100 crores in the State's economy it is estimated that additional employment of the order of 16.90 lakhs standard person years will be generated by the year 1985. Table 2.4 depicts the employment position in 1979-80 and 1984-85 in Kerala.

TABLE 2.4

*Employment Potential of the Sixth Plan (1980-85)*

<i>Item</i>	1979-80	1984-85
(1)	(2)	(3)
1. Labour force (equivalent standard person years in lakhs)	86.17	93.90
2. Expected employment (lakh standard person years)	68.00	84.90
3. Employment gap (lakh standard person years)	18.17	9.00

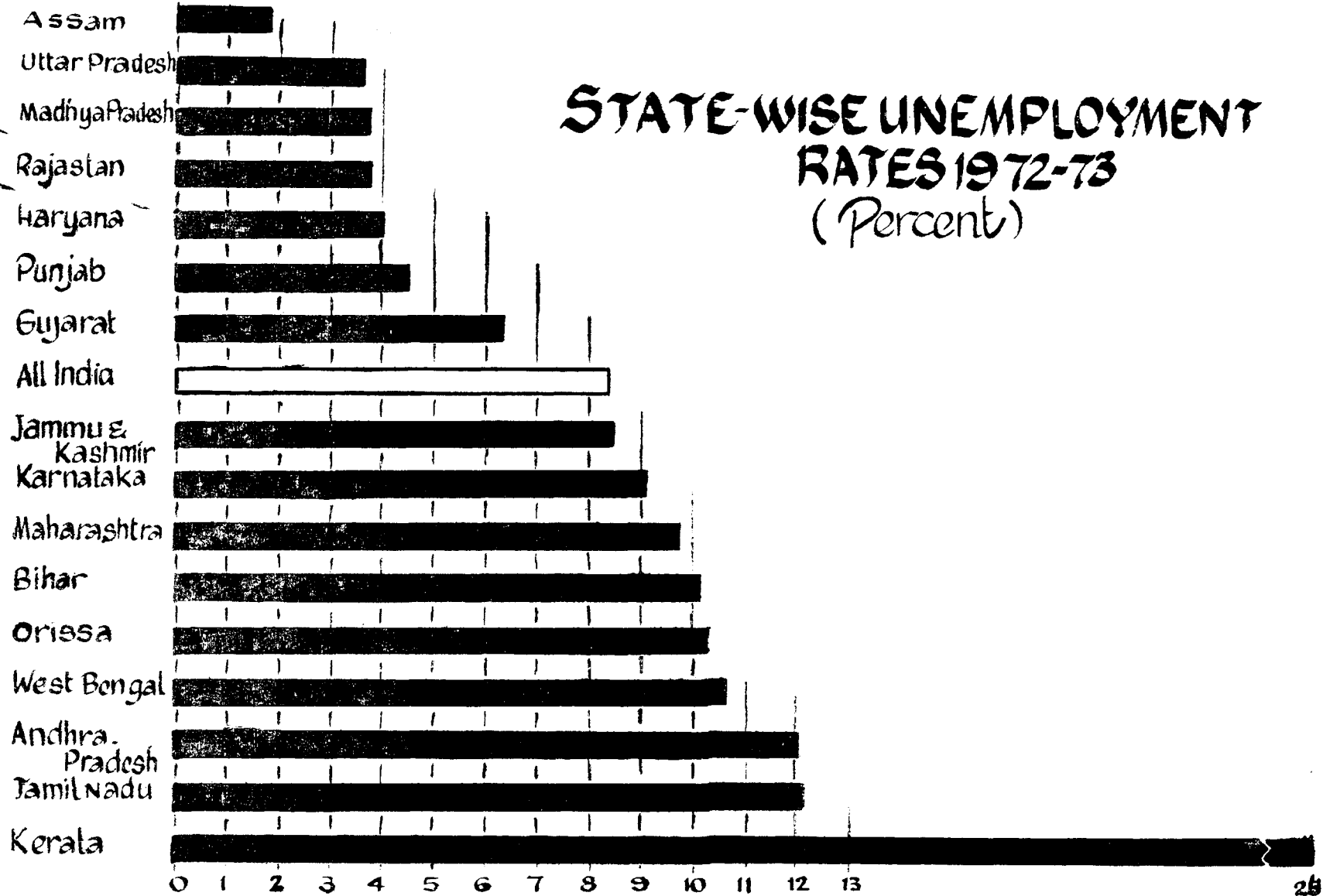
2.11 In estimating the employment potential of the Sixth Plan, the generation of direct and indirect employment in the construction phase as well as continuing phase has been considered. It is estimated that the employment gap could narrow down from 18.17 lakh standard person years in the base year of the Sixth Plan to 9 lakhs in the terminal year.

2.12 In other words, after investing an amount of Rs. 4,100 crores in the State's economy during the Sixth Plan period, there will be considerable backlog of unemployed even in the terminal year of the Plan. It may be mentioned here that on the eve of the Sixth Plan the work-seekers on the live registers of Employment Exchanges in the State exceeded 13 lakhs. It is unfortunate that despite several years of developmental effort in the country, large number of people have to remain unemployed for years without any means of livelihood. Prolonged unemployment has made it necessary to give some direct assistance to them to mitigate their distress.

2.13 There are other categories of people such as aged agricultural workers, physically handicapped persons, etc. who are also outside the pale of economic activity and without any means whatsoever. Direct financial assistance has to be provided to such weakest sections of the people also. An outlay is set apart for provision of pension for aged agricultural workers.

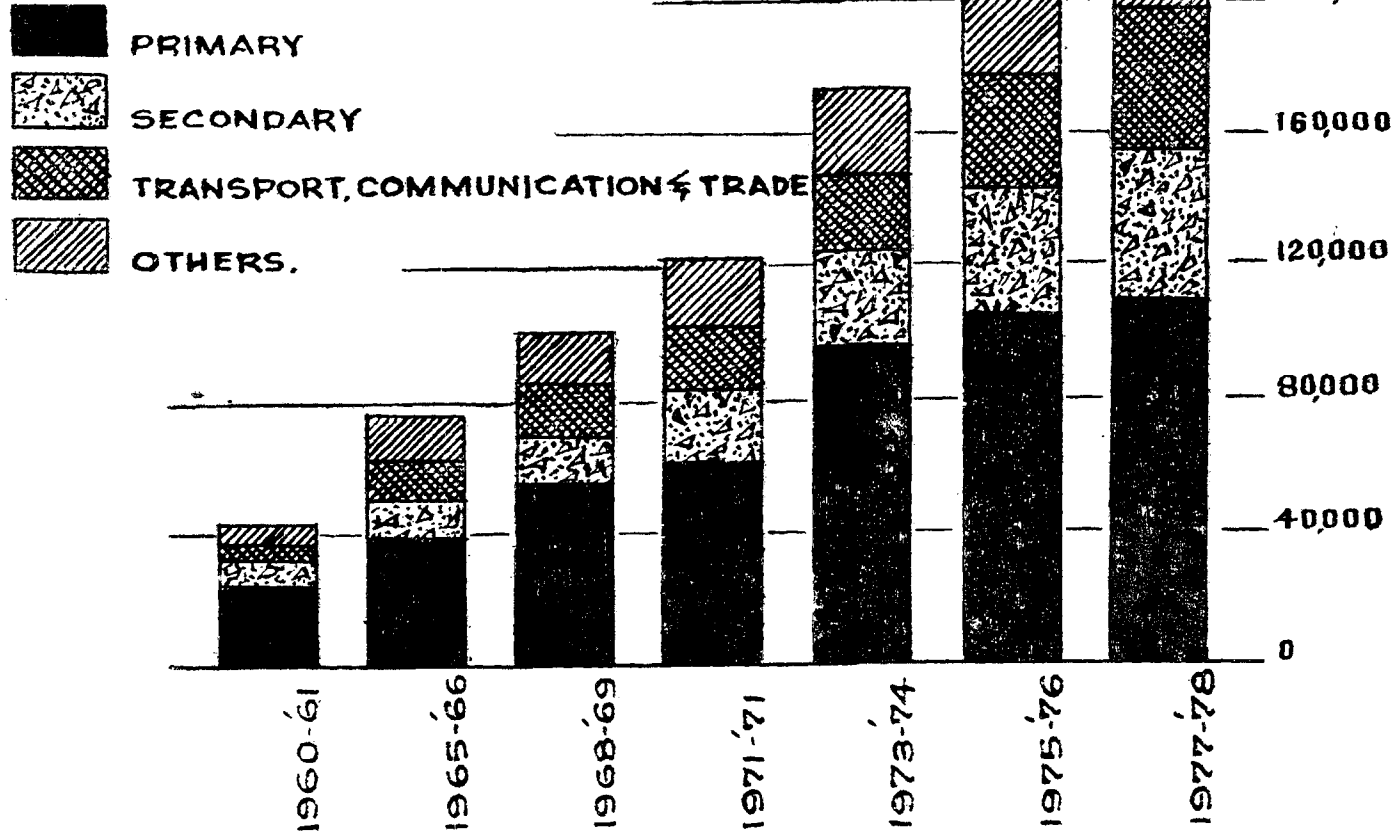
2.14 Provision of such financial assistance to the unemployed and to the aged agricultural workers is to be recognised as a national responsibility and not merely that of a State. The State Government has therefore sought special Central assistance for these schemes outside the scheme of normal assistance.

# STATE-WISE UNEMPLOYMENT RATES 1972-73 (Percent)



# STATE INCOME AT CURRENT PRICES KERALA,

Rs In Lakhs.  
240000



# INDICES OF PER-CAPITA INCOME AT CURRENT PRICES

kerala & India

200

200

▨ kerala  
■ India

100

100

0

0

1970-71

1971-72

1972-73

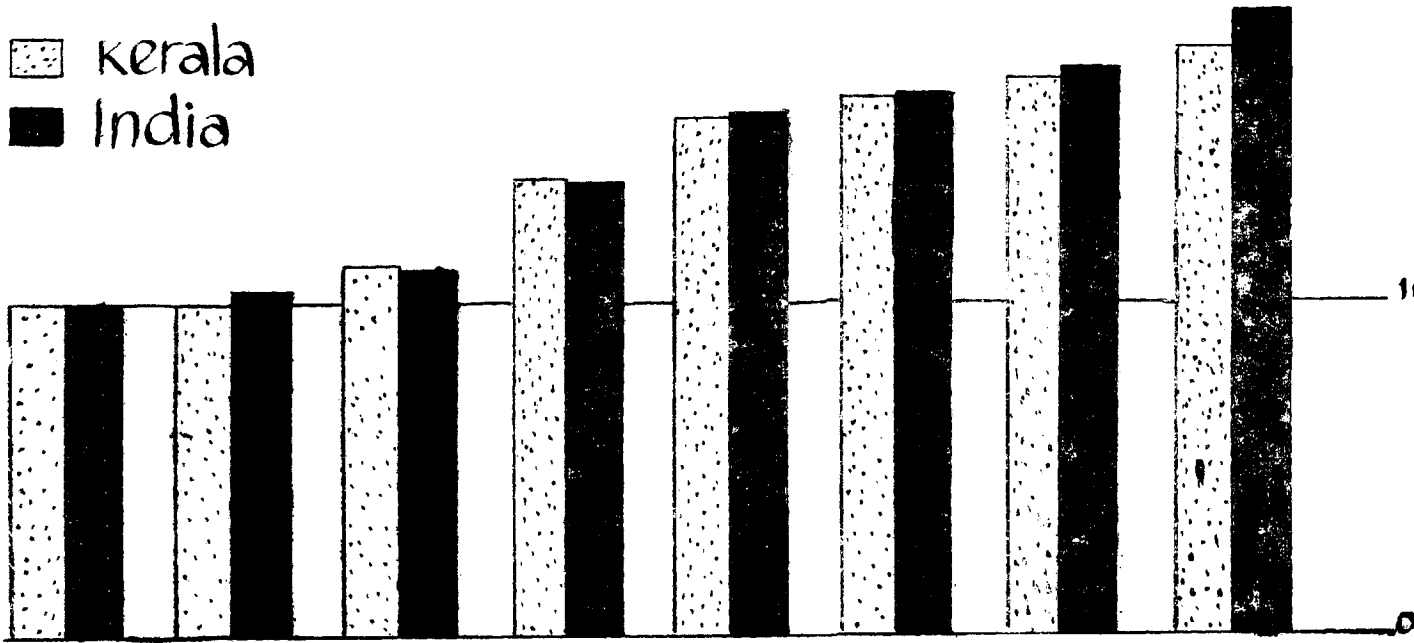
1973-74

1974-75

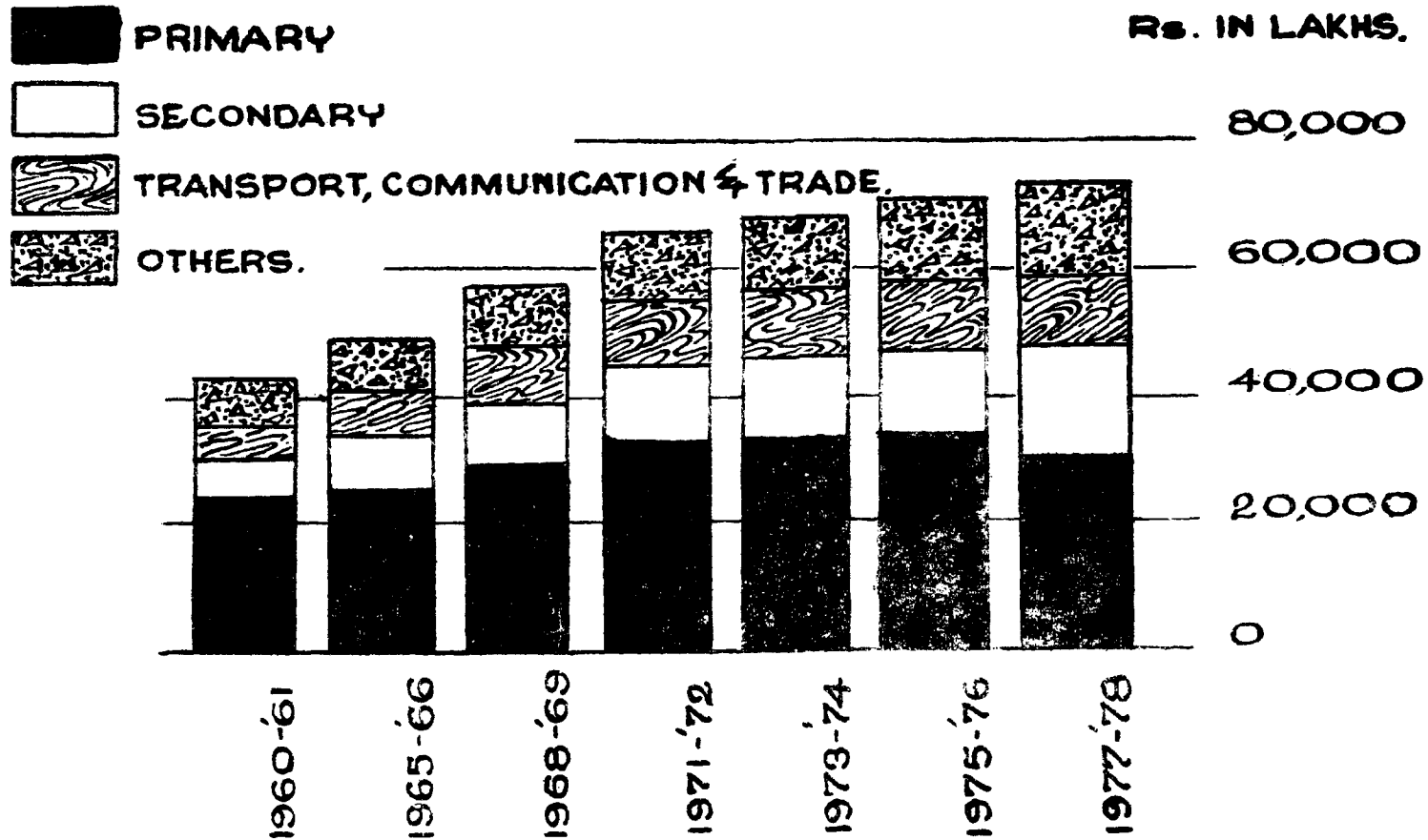
1975-76

1976-77

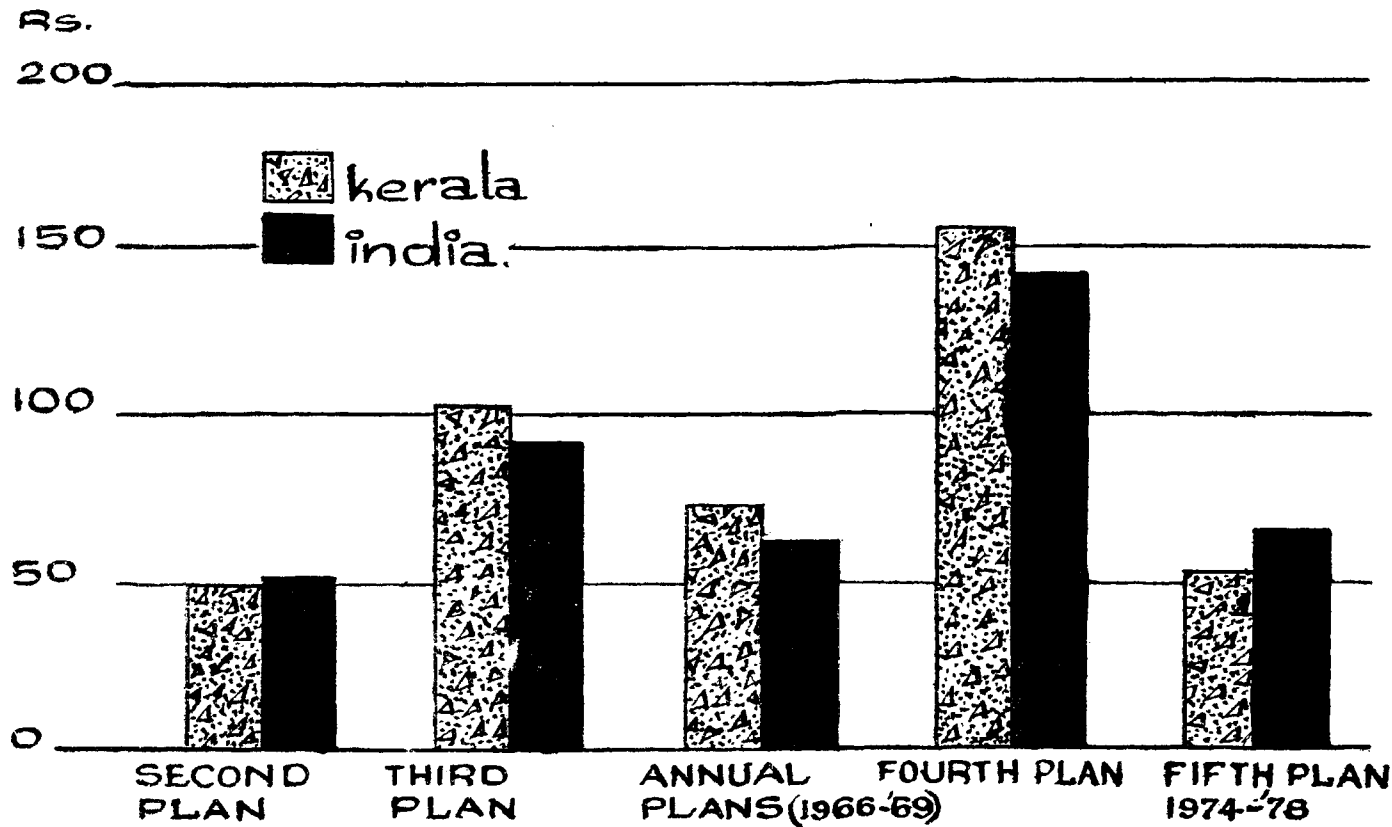
1977-78



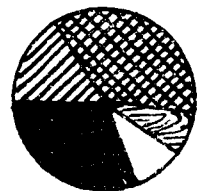
# STATE INCOME AT CONSTANT (1960-'61) PRICES KERALA.



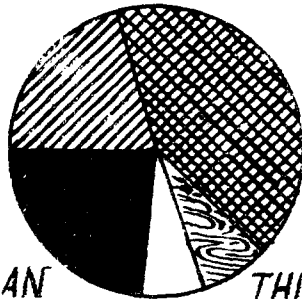
# PER-CAPITA PLAN EXPENDITURE kerala & india



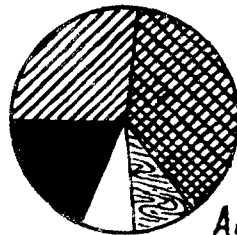
# SECTOR-WISE PLAN EXPENDITURE KERALA,



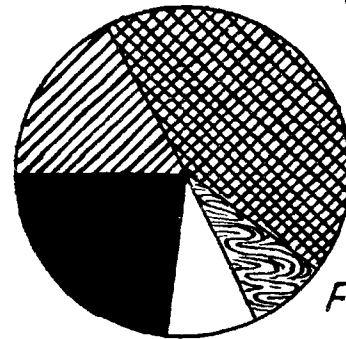
SECOND PLAN



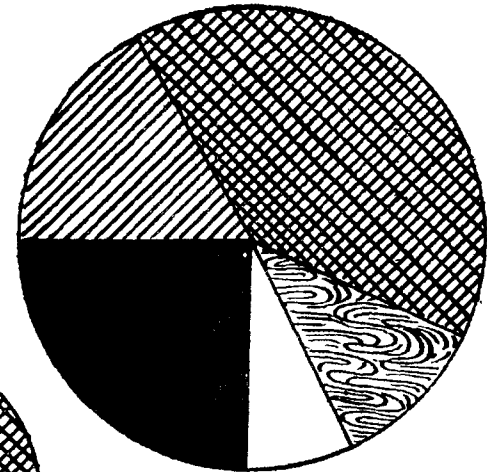
THIRD PLAN







ANNUAL PLANS  
1966-68



FOURTH PLAN.



FIFTH PLAN.

-  agriculture
-  irrigation & power
-  industry & mining.
-  transport & communi-  
cations.
-  social & community  
services & others.

## CHAPTER III

### SECTORAL STRATEGY

#### Agriculture

Some of the distinctive features of agriculture in Kerala which have relevance to any future development planning are: high pressure of population on land, divergence in the cropping pattern resulting from variations in the physiographic features especially topography, dominance of perennial and plantation crops, high degree of commercialisation and consequently monetisation and simultaneous existence of under-developed small farms on the one hand and modernised plantations on the other. Upto the middle of sixties increase in agricultural production was achieved mostly through expansion of area. More recently production in the existing areas has gone down in many districts, especially in the case of coconut. The scope for further expansion of the area under cultivation is very little. There is therefore no option in future but to strive for a vertical growth in our agriculture. For this purpose, emphasis has to be placed on improving the productivity of agriculture by changing cropping pattern and by adopting improved agricultural practices.

3.2 The agriculture plan has been drawn up based on the following strategy:—

(1) to mount a massive programme to stem the spread of pests and diseases among important cash crops like coconut and to adopt an integrated programme of development including provision of irrigation through rural electrification and minor irrigation;

(2) to adopt a comprehensive area development approach with special attention to the poorer sections in the rural areas wherein optimal utilisation of land and water as well as other local resources including human resources in a co-ordinated manner is ensured;

(3) to promote mixed farming extensively as a means of increasing investment, employment and income per unit of land;

(4) to diversify the production base by integrating crop production, animal husbandry, forestry and fisheries;

(5) to emphasise the production of foods of higher nutritive value to improve the nutrition and health of the rural population; and

(6) to ensure a steady and effective flow of appropriate technology to the field for increasing productivity and to develop the infrastructure to act as an incentive for the adoption of the technology, as well as for attaining the full benefit of application of the new technology.

3.3 Agricultural development involves a variety of efforts outside budgetary allocations. Institutional finance would be a major supplementary source of financing in many areas of agricultural development, such as exploitation of ground water for minor

irrigation, land development and land reclamation, forestry, animal husbandry, and fisheries programmes. In order that adequate institutional finance is made available, a much higher level of budgetary support to credit institutions has to be ensured.

#### Land Utilisation

3.4 For attaining the required production levels and for improving the economy of the rural poor, the utilisation of the limited land resources will need to be optimised consistent with the eco-system. It is also necessary to arrest further deterioration and ensure that the productive capability of the land is continuously improved.

The approach in land use planning will be:

(i) to restrict cereal production to suitable lands which would not only improve production but also ensure a favourable economic return to the farmer, and

(ii) to encourage mixed cropping of coarse-cereals, pulses, and oilseeds in marginal lands and areas having medium to low rainfall.

3.5 The main strategy under crop production would be two-pronged—(i) a totality approach to maximise the total production and (ii) a farm-holding approach to increase the income and employment of the farming community.

3.6 The dominant fact regarding farm holdings in the State is that more than 87 per cent of these holdings is below one hectare in extent. The principal task is to make these small farms economically viable through a package of services and increased adoption of mixed farming.

3.7 Despite a small increase in productivity, the production of pulses in the State has shown a fall because of the sharp fall in the area under this crop. Therefore one of the methods by which production increase in this crop can be achieved is by restoring the area. A strategy for restoring the area under pulses has therefore to be pursued. The summer rice fallows and an inter-cropping system in the garden and dry-lands offer scope for restoration of the area under pulses.

3.8 In the case of coconut, the State's major oilseed, there has been a declining trend in productivity and production largely attributable to the debilitating disease known as root (wilt) disease which has affected a large area in the State. In the absence of any proven remedial or control measures against this disease, the strategy for restoration and improvement of the productivity and production of this crop lies in a massive rehabilitation programme of the coconut gardens in the disease tract. The other factors contributing to the declining trend in productivity are the poor genetical potential of a large number of trees already



established and the presence of a large number of senile and unproductive trees. A massive replanting and underplanting programme introduced in a phased manner would remove the above inherent weakness in the coconut area. The high response of this crop to manuring and irrigation has been well established. The combined use of the two inputs, viz. fertilizers and irrigation, in this crop offers scope for doubling or even more than doubling the present level of productivity of this crop. A comprehensive package development programme for coconut has been drawn up in the light of these considerations. Being an oilseed development programme, this will attract a matching assistance from the Central Government.

### Land Reforms

3.9 Land reform legislations in the State have been enacted keeping in view the broad principles of land reforms as enunciated in the Five Year Plans, the need for doing justice to all sections of the population and the necessity for reducing the strains on the finances of the State. Of the various legislations the Kerala Land Reforms Act (1963) which aims at the abolition of feudal landlordism and reducing intermediary interests on land with its amendments stand out as the most progressive land reform measure in the country. The Act came into force in 1970. Now the programmes for abolition of intermediary tenures, tenancy reform and conferment of ownership of Kudikidappu have nearly been implemented in full in Kerala. However the progress achieved hitherto in respect of the ceiling provision in the KLR Act and the distribution of surplus land has been tardy, mainly due to procedural delays. Nearly 45 per cent of the land reform beneficiaries belong to the category of scheduled castes and scheduled tribes.

3.10 In the Sixth Plan the main emphasis under land reform measures will be laid on rehabilitation of Kudikidappukars and on updating the land records so that the beneficiaries are not put to hardships. The beneficiaries of surplus lands, forest lands, Government lands and Kudikidappu rights are economically poor and need financial support both for developing their land and meeting their consumption expenditure until they are able to derive sufficient income from their new settlements. Hence necessary infrastructure facilities and adequate credit and inputs will be made available to land reform beneficiaries during the plan period. This will facilitate the rehabilitation and settlement of the beneficiaries on their lands. A major bottleneck in the fuller implementation of land reform measures is the lack of proper land records. Hence a significant share of the Sixth Plan outlay will be set apart for the programme of resurvey of lands in the State and preparation of Record of Rights.

### Soil and Water Conservation

3.11 The peculiar topographic and climatic conditions of Kerala have accentuated the problem of soil and water conservation in the State. The measures so far attempted had only been to try to arrest soil erosion in specified limited rural areas for which schemes were proposed and approved. A total area of about 70,000 hectares (1979-80) are estimated to have been conserved under various soil conservation schemes including the schemes taken up by the SFDA, against roughly estimated area of 15 lakh hectares deserving

soil conservation measures in the State. A major part of this area requiring soil conservation on a watershed basis will be covered under the centrally sponsored Western Ghat Development Programme.

3.12 Attempts will be made to accelerate the investment in this sector during the Plan period so that the capability of the land resources to sustain high levels of productivity in the long run could be maintained. Soil survey which provides basic data for land use planning and soil resource development has to be further intensified to yield tangible information urgently required as a support for transformation of technology into the field. Better co-ordination will be effected among Soil Survey agencies, Land Use Board and the Department of Soil Conservation, which later will concentrate on major schemes of conservation instead of on isolated small schemes.

### Agricultural Marketing

3.13 In order to develop the marketing structure that would ensure remunerative prices to the producer by narrowing down the price spread between the producer and the consumer and reducing non-functional margins of the traders and commission agents, the main thrust will be to establish a regulated marketing system having organic links with the primary markets. Linkages with the major consuming centres will also have to be established. Co-operative marketing, distribution and banking will also have to be linked with the regulated markets. Arrangements for quality control, enforcement and inspection and improvement in grading will be streamlined and expanded.

### Animal Husbandry and Dairying

3.14 Animal husbandry and dairying are relatively less developed sectors in Kerala. They offer immense scope not only for raising the level of income of the small and marginal farmers and agricultural labourers, but also for enlarging the employment opportunities in the rural areas. The state has a breedable stock of 13.65 lakh cows and 1.51 lakhs she-buffaloes, i.e., one breedable cow/she buffalo for every three families and this widens the scope for development of animal husbandry and dairying in the state.

3.15 In the past considerable stress was laid on the over-all development of the livestock sector through

- (1) provision of better animal health care system
- (2) intensification of cross-breeding,
- (3) development of poultry and piggery, and
- (4) extension support for scientific management and feeding of cattle.

3.16 The future policy for development of cattle should lay major emphasis on increasing the productivity of stock. In respect of cattle this could be substantially achieved through planned cross-breeding of cattle with exotic dairy breeds. The strategy should be to increase the number of high milk producing crossbred cows substantially without any marked increase in the breedable stock and gradually reducing the low yielding non-descript/desi-variety of cows through a prompt health care and domiciliary service to the cattle owned by the farmers. Weaker sections owning cattle will have to be

provided with financial assistance, extension support, and marketing facilities. To achieve the goal of increase in milk production, encouragement will have to be given to small farmers, marginal farmers and other weaker sections.

3.17 To optimise the investment in livestock development programmes, the diffused and overlapping functions of various agencies like the Animal Husbandry Department, the Dairy Development Department and the KLD & MM Board will be streamlined.

3.18 Intensified efforts will be made to improve the milk marketing system of the State. The Operation Flood II Programme is to be implemented in seven southern districts of the State. The development strategy under Operation Flood II is based on the urban demand for milk in the state which will be met when this project is fully implemented.

3.19 Efforts will be made to promote mixed farming involving crop-livestock integration in suitable areas.

3.20 The principal objectives of Animal Husbandry and Dairying programmes in the 1980-85 Plan may be stated as follows:

1. to augment considerably production of livestock products such as milk, meat and egg.
2. to promote adoption of improved methods of animal husbandry such as production of abundant fodder, better feeding and breeding, proper management and animal health control for improvement in the productivity of livestock.
3. to organise marketing of produce through a functional system of co-operatives on the lines similar to those adopted by dairy co-operative unions in Gujarat.
4. to improve the economic status of the rural, poor and tribals by providing additional employment opportunities and income through poultry keeping, goat rearing and piggery development.
5. to extend insurance cover to the entire cross bred cows in the respective areas of animal production in order that adequate security of investment of scarce economic resources of the poor farmers is guaranteed.

### Fisheries

3.21 The development efforts in the fisheries sector in the past have concentrated on mechanisation of small boats for catching prawns and modernisation of processing facilities to suit the export trade. As a result of these efforts, prawn catches and foreign exchange earnings from export trade have gone up several-fold. But the condition of the traditional fishermen who constitute 90 percent of the fishing personnel remains largely unchanged. The mechanisation programme was introduced to vest ownership of boats with the fishermen groups organised on co-operative lines. The activities of these primary producer fishermen co-operatives were practically controlled by its office bearers, middlemen and influential members of the fishermen community and only a small fraction of the boats are said to be under the actual control of fishermen themselves.

3.22 Very little has been done to improve the traditional fishing sector. The Fifth Plan programme of diversified fishing by mechanised boats, particularly purse-seining of sardines and mackerel for optimum exploitation is yet to be put into operation. The off-shore and deep sea fishery resources remain unexploited. While construction of a number of fishing harbour projects was started in the State not even a single one is so far completed and commissioned. No concerted and serious attempt has been made to exploit the inland fishery resources available in the State so far.

3.23 A few fishery development programmes like Fisheries Package Programme, Tanur and ARDC sponsored projects at Pudiappa, Parappanangadi, Vypeen and Anjengo have been functioning in the state for some time without making any significant impact on marine fisheries sector. The optimum utilisation of the fishery resources (both marine and inland) will provide new employment opportunities and income for the rural people and a boost to the State's economy. These aspects have to be planned in the coming years with the following objectives:

- (i) Socio-economic advancement of the traditional fishermen through the establishment of 'village' co-operatives (consisting of all the fishermen in a settlement) and elimination of exploitation of fishermen by middlemen both in production and marketing of fish. The 'Settlement Co-operative' will be the principal instrument of implementation of all schemes.
- (ii) Increase in supply of fish for domestic consumption.
- (iii) Strengthening programmes for improving inland fish production as well as to promote coastal aquaculture or mari-culture involving the culture of prawns, mussels etc.
- (iv) Revitalisation and restructuring of organisations and institutions to promote exports at remunerative prices.

### Forests

3.24 The main objective of planning in this sector so far has been the building up of economic plantations and setting up of the infrastructure facilities for exploiting the forest produce in other areas. The area under forests is going down steadily and is reaching ecologically dangerous proportions. In addition to State Plan schemes, studies regarding production of forests and forest development will be undertaken under the Western Ghat Development Programme. For the 1980-85 plan the emphasis will be:

- (i) To organise effective conservation and protection of forests in order to prevent further erosion and deterioration of the forests and to bring the areas declared as 'Reserved forests' under effective control measures;
- (ii) To increase the area under forest and tree growth by promoting social forestry so as to meet the needs of fuel wood and small timber in the rural areas.
- (iii) to undertake a larger programme of economic plan

- (iv) To promote and encourage tribal co-operatives for collection and marketing of forest produce.
- (v) To develop forest based-industrial units.

### Community Development and Panchayats

3.25 In recent years the Community Development Blocks have been used mainly as the agencies for special target-group oriented or area development programmes such as rural employment schemes, rural water supply schemes, applied nutrition programme, nutrition education programme, Integrated Child Development Scheme, SFDA and MFAL programmes and Integrated Rural Development Programmes. There is considerable overlapping of functions between the departments and the blocks arising out of taking up a number of special schemes over and above departmental schemes. The role of the Block Organisation in District Planning and implementation of district schemes and area development schemes will be clearly defined. Below the district level, the Block is the national choice for local planning, with the Panchayat at the village level. Both these levels will be progressively strengthened with increasing devolution of responsibility for local works and schemes.

3.26 According to the National Sample Survey, the percentage of unemployed labour to total labour force in the State is the highest in the country and three-times the national average (See chart-1). Because of chronic unemployment and the paucity of employment outlets, job seekers remain on the live register of employment exchanges for quite a number of years. In order to give some relief to the unemployed an employment assistance scheme has been drawn up, but the main emphasis has to be employment generation schemes. Both these are complementary; as employment generation schemes get accelerated, the need for employment assistance would correspondingly go down. According to the national Plan-frame, a national rural employment project will be initiated in all the blocks in the country. The proposal is to provide wage employment to at least 1000 workers in each block in such a way that the work done results in value-added at least equal to the wages paid. At the block level a manpower utilisation plan will be prepared. The existing employment schemes implemented by different agencies will be integrated into a Rural Employment Programme and will be implemented through the blocks and panchayats. In view of the acute nature of the unemployment problem in the State, a good part of the programme will have to come under the national scheme.

### Co-operation

3.27 Co-operative credit has shown considerable expansion both in quality and in quantity during the past two decades. Membership of the Co-operative credit societies in the State increased five-fold, paid up share capital 16 times, deposits 85 times and loans advanced 30 times. But there are several features of Co-operative credit system which have serious implications for financing agricultural development in the State. The heterogeneity of the crops even within a small tract of land, with a mix of seasonal, annual and perennial crops, results in the demand for credit for different seasons from various sources. It calls for an unorthodox approach to credit disbursement on the

part of the institutions. In order to sustain the level of credit dispensation, a reorientation and restructuring of Co-operative credit societies is also called for. The programme for the reorganisation of the Primary Agricultural Credit Societies will have to be devised suitably so as to reconstitute these societies as fully viable societies. Effort will also be necessary to enrol new members so as to cover 90% of the agricultural families within the Co-operative sector and steps should be taken to increase the deposits at Co-operative credit society's level.

3.28 A time-bound programme has also to be drawn up for the reorganisation and rehabilitation of many of the Primary Marketing Societies, Farming Co-operatives, Labour Contract Societies and Consumer Co-operatives in the State.

3.29 Taking these development problems and needs of the co-operative sector, the following objectives have been identified, in drawing up the 1980-85 plan:—

- (i) Co-operatives shall be built up as one of the major instruments of decentralised, labour-intensive and rural-oriented economic development and shall be closely associated with the process of planning for economic development and social change.
- (ii) The co-operative movement shall be developed as a "shield for the weak". Small and marginal farmers and agricultural labourers, rural artisans and ordinary consumers belonging to the middle and lower income groups shall be provided the maximum scope to participate in the co-operative programmes and a massive effort will be made for the involvement of millions in the co-operative movement. Women will be given greater role in the co-operative movement.
- (iii) In the rural areas, a strong, viable and an integrated co-operative system shall be built up to promote total and comprehensive rural development by progressively strengthening the links between credit, supply of agricultural inputs, agricultural production including ancillary activities like dairy, poultry, fishery and piggery, marketing and distributing of essential consumer articles.
- (iv) The Consumer Co-operative movement shall be built up to strengthen the public distribution system and act as a bulwark of consumer protection and as an instrument of price stabilisation.
- (v) Professional management shall be built up in the co-operative institutions through a sustained programme of recruitment of suitable personnel and their systematic training.

### Irrigation

3.30 As on March 1980, Kerala has ten completed major and medium projects. Eighteen are still in progress. Eleven of the latter are on stream for the past many years, and a majority of them are on-going

schemes for the past 17 to 25 years. After March 1978, seven new projects have been initiated. The cumulative expenditure on these projects till March 1980 was Rs. 213 crores and an area of nearly 2.1 lakh hectares (net) or 3.2 lakh hectares (gross) have been irrigated.

3.31 The ten completed projects have an ayacut of 1.34 lakh hectares and are irrigating a gross area of 1.47 lakh hectares against an ultimate command area of 1.68 lakh hectares. Seven on-going projects have a total irrigation potential of 2.61 lakh hectares (net) or 4.44 lakh hectares (gross). An investment of about Rs. 166 crores has been made on these projects till March 1980, and the ayacut brought under irrigation is 0.8 lakh hectares (net) or 1.7 lakh hectares (gross). The balance cost of completion of these projects is about Rs. 200 crores. The seven new schemes recently initiated have an estimated cost of Rs. 165 crores to bring an area of nearly 0.8 lakh hectares (net) or 1.6 lakh hectares (gross) under irrigation. Past experience in the implementation of irrigation schemes has brought home the need for thorough investigation of the schemes.

3.32 As for minor irrigation schemes, by the end of March 1980, 1.2 lakh hectares (net) or 1.4 lakh hectares (gross) of mostly wet lands have been brought under irrigation through such irrigation schemes. Many of the schemes taken up in earlier years were lift irrigation schemes in Pamba and Periyar river basins. At present minor irrigation structures include diversion weirs across streams, regulators, tanks and reservoirs, irrigation and drainage channels, salinity control structures and lift irrigation works. The on-going schemes including restoration of damaged minor irrigation structures would require over Rs. 12 crores for completion. The potential for minor irrigation is mainly for garden crop mostly through lifting of ground water. This potential has hardly been utilised.

3.33 The objectives of irrigation in the State should be (a) to use the existing irrigation capacity to the optimum (b) to maximise the production per unit of water used for irrigation and (c) to make available irrigation water to all commandable wet lands within the next ten years.

The strategy should therefore be:

- (i) Completion of on-going schemes within the next five to seven years, the most important one being the Kallada Scheme,
- (ii) Completion of detailed investigation in respect of schemes recently initiated and formulating group of schemes in untapped river basins within the next 3 to 4 years and starting of a few of these schemes by the end of this plan period.
- (iii) Improvement of the existing conveyance systems and Command Area Development. Modernising and controlling water usage from completed and partially commissioned projects for maximum benefit. Rotation of crops, providing field canals up to 5 hectares size of land, control of flow of water at field sluices, etc. may have to be given high priority.
- (iv) Starting of a number of minor irrigation schemes especially by tapping ground

water and through lift irrigation to increase the productivity, mainly of cash crops. An organisation for attracting funds for financing such schemes may have to be conceived.

- (v) Carrying out investigation and river valley research to formulate integrated irrigation schemes in future. To select new schemes under major and medium irrigation, the policy should be to give priority for schemes in untapped basins with extensive irrigable areas and benefiting drought prone areas, followed by schemes in tapped basins where large gaps are to be covered.

3.34 For minor irrigation, the policy should be to give priority to investigation and schemes in those districts in the State where the proportion of irrigated area is comparatively low and the potential for minor irrigation is high. Instead of viewing major and minor irrigation in mutually exclusive terms, it is advisable to work towards an integrated system of major and minor irrigation. In the circumstances prevailing in the State and considering the need for irrigation of cash crops this will produce much greater returns.

3.35 The goal for irrigation during 1980-85 may be to command additional 3 lakh hectares. Of this, 2.5 lakh hectares can be the target for major and medium irrigation schemes.

### Flood Control

3.36 Being a heavy rainfall area with hills and slopes, the State is prone to annual flood damage, the damage in particular years being especially severe. Flood control measures could not be taken up in the State as part of a comprehensive plan for want of funds. The piecemeal works done so far are the construction of embankments to protect the thickly populated banks of rivers to save the lives and properties of the people and for the protection of schools, places of worship, roads, canals, etc. from the ravages of floods.

3.37 Till March 1980, the investment on flood control during the plan periods is about Rs. 6 crores. About 65 kms. of embankments and 7 kms. of drainage channels were constructed to protect an area 17,000 to 18,000 hectares of land.

3.38 The strategy to tackle flood problems in the State should be on the following lines:—

- (i) a long range plan aimed at controlling the factors which cause flood and thus reduce damages. The programmes to be envisaged are provision of flood, storage in future storage reservoirs, raising the levels of existing dams, if possible, construction of check dams, interconnecting rivers wherever possible, to facilitate easy discharge of flood waters, river mouth and channel improvements, raising of road levels in flood affected areas, formation of flood embankments, soil conservation, afforestation, prevention of encroachments of river margins, etc;
- (ii) a short range plan to meet the immediate requirements like completion of on-going

works and detailed investigation and formulation of schemes to be implemented in future.

3.39 During the 1980-85 plan period, the short range plan will be given higher priority, especially to schemes which benefit large tracts of agricultural land, high density residential areas and cities in Kerala. Building up the necessary equipment and personnel to prepare and implement the long range plan in future is also envisaged in the present plan.

#### Anti-Sea Erosion

3.40 Out of a coast length of 562 kms. in Kerala, the length requiring protection is estimated to be 320kms. Of this the length of coast requiring immediate protection is 246 kms. The estimated cost of protection and stabilisation of 320 kms. of coast is about Rs. 80 crores and that for 246 kms. is nearly Rs. 55 crores.

3.41 Till March 1980, less than Rs. 40 crores has been invested in Anti-Sea Erosion works for protecting a coastal length of about 230 kms. The strategy for anti-sea erosion should be to protect the vulnerable 246 kms. of coast line within the next five years and to maintain the already protected coast line at the required level. To avoid proliferation of schemes, priority should be given to the on-going schemes for completion within the plan period 1980-85.

#### Power

3.42 By March 1980, over Rs. 450 crores, that is nearly 28% of the Plan investments to date, have been invested in Power sector, to bring the installed power generation capacity to 1011.5 M.W. in Kerala. The State has a hydel power potential of over 3000 M.W. at 60% load factor. Power generation stood at more than 5000 MKWh. last year. At present there are seven on-going generation projects (leaving aside Idukki Stage II) which are scheduled for completion within the next ten years. These would add 600 MW to the power generation capability and 2350 MKWh. to the energy generation capability.

3.43 The problems within the State have been slow pick up of power consumption and the low quality of power supply. The power consumption within the State, stands at about 2500 MKWh. hardly 50% of the power generated. With internal consumption as base, the power losses in the State is as high as 28%. Since more than 70% of the power consumption is by industries any significant growth of power consumption can take place only if industrial activity increases at a faster rate. The power consumption for irrigation purposes is low with hardly 75,000 irrigation pump sets energised. Hence investments in the power sector will have to be linked up with investments in lift irrigation and in the industrial sector.

3.44 The past investment pattern was necessarily skewed towards power generation schemes, but this has resulted in a backlog of transmission and distribution works. Because of the dispersed settlement pattern in the State, for electrical power to be made available, distribution lines should touch all salient areas in desoms. At a 75% requirements of total investments the backlog investment in transmission and distribution will be more than Rs. 250 crores. The balance costs

of the on-going generation schemes which are in an advanced stage, is Rs. 40 crores (This is excluding Silent Valley, Lower Periyar, Kuriarkutty Karappara and Idukki Stage II).

3.45 The objective of power development in Kerala in the next few years should be to (i) make available electrical power of the required quality and quantity to all potential customers in Kerala, (ii) reduce the backlog in transmission and distribution in a phased manner and (iii) to reduce the power losses through adequate control measures.

3.46 The strategy during 1980-85 plan will therefore be to:

- (i) keep the investments in generation projects low;
- (ii) increase the quality level and points of supply of electrical power, and
- (iii) build up alternate sources of power for the long run requirements.

3.47 To phase out the backlog in transmission and distribution, the investment policy should be to have at least 85% of the total investment in power sector earmarked for transmission and distribution works. High priority should be given to energisation of agricultural pumpsets and demand on industrial loads.

3.48 At the same time, from the immediate national and regional point of view and from the long-term point of view of the State and from the angle of maximising use of renewable sources of energy like hydel power, it would be advisable to accelerate generation projects in Kerala. The funds needed for this would have to be found outside the State Plan, as additional assistance. Within the size of the State Plan, as traditionally conceived, it is impossible to provide in the Sixth Plan both for the State's urgent need of transmission and distribution and the national or regional need of generation from renewal sources.

#### Industry

3.49 In spite of infrastructure facilities like abundant hydro-electric power, water, educated manpower, raw materials, transport system etc., Kerala continues to be industrially backward. Central sector investments in Kerala have been relatively low. Traditional industries like coir and cashew are dominated by primitive methods and inferior technology. Therefore the emphasis on industrial development in the state has been on the promotion of a large number of labour intensive units of a small scale nature. Some of them have been facing serious competition in the all India markets partly on account of increasing labour costs. There has been savings and surpluses in private hands on account of trading profits and remittances from abroad. But state based entrepreneurship has been lacking.

3.50 In the past, allocations in the State Plans for industrial development has ranged from 2 to 10 percent. Though these allocations have been low the Plans have brought into existence a large number of public corporations and departmental undertakings.

Many of them have been incurring losses due to operational inefficiencies. New drive and direction are therefore needed for the industrialisation of Kerala.

3.51 The main objectives for the different segments of the industrial sector in the Sixth Plan may be broadly outlined as follows:

- (i) increasing the rate of utilisation of the available capacity;
- (ii) promotion of new industrial units based on technologies appropriate for the resource endowments;
- (iii) setting up of new industrial units in the less developed areas;
- (iv) setting up of certain major units in the Central Sector having scope for the growth of ancillary small scale ventures;
- (v) reorganisation of public sector units with a view to making them economically viable and efficient in operation;
- (vi) prevention of the shifting of labour intensive traditional industries like cashew, coir and handloom;
- (vii) enhancement of the earning capacity of rural artisans, handloom weavers, craftsmen and others employed in villages and small industries; and
- (viii) promotion of village and household industries in rural and semi-urban areas.
- (ix) develop existing small scale industries and encourage the establishment of high value adding new units;
- (x) evolving a more rational frame work for promoting private investment in the State.

3.52 It is found that considerable unutilised capacity exists in industries such as chemicals, rubber based goods, fertilisers, paper and paper board. Bottlenecks in capacity utilisation have to be removed. As revealed by the Annual Survey of Industries data, industries such as tea processing, cashew processing, cotton spinning and weaving, handloom, manufacture of veneers and plywood, sawmills, printing, manufacture of rubber products, chemicals, drugs and pharmaceuticals, manufacture of structural clay products and repairs of motor vehicles satisfy the criteria of both profitability and employment generation capacity. These industries must be given special attention.

3.53 Infrastructural facilities such as the conventional programme of industrial estates have not been sufficiently attractive to private entrepreneurs. This is mainly on account of their wrong locations. Locational considerations should therefore be carefully weighed in terms of potentialities of development and regional balance. The package of incentives should also be adequate.

3.54 Investment in industries by the Government of India has been meagre during the early plan periods. Out of the total Central investment of about Rs. 13,705 crores as at the end of March 1978, Kerala could only get about Rs. 325 crores (2.38 per cent). The proportion of central industrial investment in Kerala is actually declining during the recent years. The

increasing gap in the development as between the industrially advanced States like Maharashtra, Punjab, and West Bengal and the industrially poor States like Kerala needs to be bridged in the coming years as rapidly as possible. The Centre should be persuaded to take a special interest in the development of Kerala. The State should present a number of viable projects for the consideration of the Centre.

3.55 Besides expansion/diversification of the existing units, the Central Government should set up new ventures in areas like chemicals, drugs and pharmaceuticals, engineering and tool making units, railways and mineral development. Some of these ventures offer possibilities of growth in the small scale ancillary sector. Already the State has suggested a number of viable projects like the caprolactum plant of the FACT, Aromatic complex and Railway Wagon Building Factory for the consideration of the Centre.

3.56 Kerala has about 75 large and medium scale units in the Public Sector. Some of them serve no useful purpose. Few of them have overlapping functions. Quite a number of public enterprises have substantial accumulated losses. The management of many of them are far from satisfactory. It is high time a high power Committee examined the ways and means of reorganising these units and toning up their management.

3.57 Traditional industries like coir, cashew, handloom and beedi account for the major share of the industrial labour force in Kerala. Today these industries are beset with a variety of problems and are finding it difficult even to maintain current levels of production and employment in spite of the fact that special development institutions like Kerala State Coir Corporation, Kerala State Cashew Development Corporation, Cashew Corporation of India, Handloom Development Corporation have come into existence. Problems such as shortage of raw materials, lack of adequate marketing facilities and sufficient finances continue to hinder the efforts to rehabilitate the traditional industries in the State. It is necessary to modernise and rationalise certain operations connected with these industries in order to prevent their deterioration and ultimate decay. Lower wages prevailing in the neighbouring States have tempted entrepreneurs to shift their sphere of operations. Kerala has pleaded with the Government of India to enforce national minimum wages for workers engaged in these traditional industries.

3.58 Kerala has over 250 cashew processing units. The livelihood of nearly 1.3 lakh cashew workers is in danger owing to the inadequacy of rawnuts for processing. The Kerala cashew plantations are hopelessly inadequate to meet the total demand (of about 4 lakh tonnes) for raw cashewnuts. The industry has so far been sustained by large amounts of imports of raw nuts from the East African Countries of Mosambique, Kenya and Tanzania. Over the last few years these countries themselves have developed cashew processing units and they have become less and less willing to export the raw nuts. Thus the traditional sources have nearly dried up. Strong competition from China and Brazil for the purchase of rawnuts has also made things more difficult for Kerala. A time-bound programme of cashew cultivation is therefore necessary

to tide over once and for all the difficulty of obtaining raw nuts in adequate quantities. Without augmenting the domestic supply of raw nuts ensuring guaranteed minimum days of work to the factory workers will become increasingly difficult.

3.59 Coir industry, another major traditional industry of Kerala, supports about 4 lakh workers, the majority of whom comprise women and children. There is a large degree of under-employment in the industry and this acts as a deterrent to its modernisation. With a view to making available to coir workers the fruits of their labour, various programmes were undertaken during the successive five year plans. Attempts were made to organise co-operative societies for bringing the means of production within the reach of actual workers so as to free them from the clutches of middlemen and to ensure steady employment to them at reasonable wages. Several plans for the reorganisation of the industry were drawn up but the required central assistance needed for comprehensive development of the industry could not be obtained during the past. The Central assistance received so far is only of the order of Rs. 4.3 crores. The coir co-operatives were also given secured cash credit accommodation from the Reserve Bank of India. Substantial Central assistance is needed to modernise this languishing industry.

3.60. Handloom, the second largest traditional industry in Kerala, is employing over 2 lakh persons particularly in rural and semi-urban areas. Value of cloth produced by this industry in 1976-77 stood at Rs. 32 crores. As a result of the liberal help extended by the Central and State Governments, the industry could rehabilitate itself to some extent and improve its productive capacity. But the problems of soaring prices of raw materials, accumulation of unsold stock, competition from the organised mill sector and marketing of finished products etc., still continue to persist in this sector. Owing to the accumulation of stock, the Central and State Governments have often come to the rescue of this industry by allowing rebate on the sale of handloom cloth. The scheme for payment of rebate on the sale of handloom cloth often gets the major share of the expenditure. Other schemes for which considerable amounts are being earmarked in the Plan are Government participation in the share capital of primary weavers' co-operative societies, Handloom Apex Society and Kerala State Handloom Development Corporation and setting up of intensive development projects and export promotion projects. Two intensive development projects covering 10,000 looms each with an outlay of Rs. 185 lakhs each and an export production centre covering 1,000 looms with an outlay of Rs. 40 lakhs, sanctioned by the Government of India are being implemented through the Kerala State Handloom Development Corporation. The following measures are suggested for handloom development during the Sixth Plan period:

- (i) ensuring a minimum of 300 working days in an year, for the ninety thousand and odd handlooms in the State;
- (ii) improving the quality of goods and diversification of products;
- (iii) checking the cost of production of handloom cloth without adversely affecting the wages of workers;

- (iv) increasing production by bringing more looms into the co-operative fold, and by expansion and organisation of factory type industrial co-operatives;
- (v) creating and maintaining a steady market demand for handloom cloth in this world of changing tastes and fashions; and
- (vi) ensuring better living conditions to the workers in this industry.

3.61 The role of State in the promotion of modern small scale industries will mainly consist in the provision of necessary infrastructure, co-ordinating all available assistance, providing incentives for setting up small scale units and creation of a climate of confidence among the intending entrepreneurs. During the Fifth Plan period a massive programme for setting up small scale units popularly called mini-industrial estates programme was launched and incorporated in the plan. This programme has not met with the expected success. It is proposed to take into account the drawbacks of this programme in implementation while formulating schemes for the Sixth Plan. Action is being taken to overcome the problems confronting the entrepreneurs in the existing mini-units. The District Industries Centres launched during 1978 will be continued by the State during the Sixth Plan period. These centres are set up to take away the focal point of development of small scale industries from big cities and state capitals to the district headquarters. It is necessary to inject dynamism in small scale industry in Kerala which has considerable growth potential. Though this sector can generate large scale employment opportunities it needs to be encouraged to develop to its full potential. The small scale sector in the State covers a wide section ranging from food processing industries to sophisticated electronic components. More than 800 items of manufacture are exclusively reserved for the small scale sector. This has considerably enhanced the scope for industrial production in the small scale sector. Kerala is yet to achieve satisfactory results in the sphere of ancillary industries. The main drawback in this regard is the absence of mother industries which can foster small scale units. However with greater assistance from the Centre., the State could set up several units of the ancillary type during the Sixth Plan period. Special attention will be paid to units in the 'tiny' sector, viz., those with investment in machinery and equipment upto Rs. 2 lakhs. The scope of small scale units has been considerably enhanced under the New Industrial Policy Statement announced by the Government of India in July 1980. This calls for efforts covering a wide range of activities in the industrial sector during the Sixth Plan period.

3.62 It is a real paradox that some of the locally available industrial raw materials are exported to other States in India. Major share of raw materials like rubber and copra are processed by units outside Kerala. It will therefore be necessary to conceive of programmes for the greater industrial utilisation of such raw materials within the State itself.

3.63 Apart from the State and Central sector outlays, the major source of industrial investment is institutional finance. Hitherto Kerala could not attract adequate institutional finance for its industries. An examination of the industrial credit distribution by the major all India institutions like Industrial Finance

Corporation of India, Industrial Credit and Investment Corporation of India and Industrial Development Bank of India shows that the major portion of the resources is directed to industrially advanced states like Maharashtra, West Bengal, Tamil Nadu and Gujarat. The share of Kerala has only been about 3 per cent of the total assistance so far provided. Therefore, all efforts will be made in the coming years to attract more of industrial credit to Kerala from these Central Institutions by making available viable large and medium projects for their consideration.

3.64 It may be necessary to assure credit facilities to those coming forward to invest in industrial enterprises. Fortunately recent developments in the institutional and banking sector have a salutary effect on industrialisation. The Kerala Financial Corporation is one of the major financial agencies for providing fixed capital to small scale units in Kerala. It gives assistance to small industries within the State, public or private limited companies, co-operative societies, partnerships or sole proprietorships. It provides long term financial assistance for starting new industrial units and also for the expansion of existing units. The State's financial support to this institution in the Sixth Plan will enable the growth of industries, especially in the small scale sector.

3.65 The State Bank and the nationalised banks have evolved schemes by which they can render assistance to small scale industries for meeting their requirements of fixed capital as well as working capital. The nationalised and commercial banks provide liberalised credit facilities to small scale industries under various schemes such as entrepreneur scheme, self-employment scheme, rural industries project scheme etc. The major share of finance required by small industries has to come from the financial institutions. However, from the practical point of view it may not be possible to completely do away with Departmental assistance. Seed capital to intending entrepreneurs is provided at present on personal security or property security. The Government provides financial assistance to industrial co-operatives also. In view of the increased industrial activity envisaged during the Sixth Plan period, State Government's financial assistance will have to be stepped up significantly.

3.66 All efforts to meet raw material requirements of industries will be made during the Sixth Plan period through the setting up of appropriate institutions or agencies.

3.67 In view of the peculiar problems of artisans, they need a package of services besides close organisational assistance and leadership, to uplift them from their bondage and exploitation. The new package of assistance should comprise setting up of primary production units in carpentry, blacksmithy, masonry, pottery, women's enterprises etc., and a raw material supply store at sub-regional level for ensuring steady supply of scarce raw materials at fair prices. The problems of accumulation of finished stocks on the one hand and scarcity of raw materials at reasonable prices on the other faced by the handloom weavers need urgent consideration. The earning capacity of the weavers largely depends on the marketing of their products which face tough competition from the mill sector. More and more looms should therefore be brought under the co-operative fold so as to improve the

quality of cloth produced, by imparting technical guidance and to ensure competitiveness in the market. Timely help in the form of raw materials and finance rendered to the co-operatives will help the weavers to earn a better living. Provision of social amenities like housing, educational grants to children of artisans, old age pension, medical and health care etc., will go a long way in improving the productivity and earning capacity of rural artisans.

3.68 The existing village industries in the State have helped to generate full time as well as part-time employment. The State Khadi and Village Industries Board has launched a special employment programme for the provision of employment of one and a half lakh persons through Khadi and Village Industries. This programme will be given special importance during the Sixth Plan period. In the Kerala context a programme of developing household industries utilising local raw materials and manpower assumes considerable significance. Kerala can with profit emulate the pattern of industrial development viz., a series of small and household industries, that is in vogue in centres like Haryana and Punjab.

3.69 In a long term perspective of industrial development for the State, we can visualise growth of such major industries based on ship building, electronics, titanium products, silica, ceramics, railways, chemicals, cement, forest produce, phytochemicals, engineering, machine tools, steel fabrication, agro industries like cotton textiles and fish processing, industries linked with tourism and petro-chemicals. The programmes of industrial development would do well to keep in view the special needs of the backward areas also. Selection of the right type of industries will be given greater emphasis during the Sixth Plan period. The strategy of industrial development during the quinquennium will be better utilisation of the agricultural and mineral resources of the State like rubber, spices, copra, mineral sands, graphite, limeshell, bauxite, timber and other forest produce, leather etc. A network of skill intensive industries based on natural resources will enable efficient utilisation of the relatively educated and skilled labour in the State. Adequate attention to modernisation of industries in areas such as textiles will be laid during the Plan period. It is proposed to create additional spinning capacity through the establishment of new spinning mills under the Kerala State Textile Corporation. This will help to remove to a significant extent the shortage of yarn now experienced both in the handloom sector and the mill sector. Efforts to nurse the sick units, especially in the small scale sector, will be made in the Sixth Plan period also. However takeover of the management of units should be resorted to selectively after careful examination of the steps required to revive the units. The Plan period will find a considerable step up in the investment on Kerala's transmission and distribution of electricity. Therefore, the Plan will aim at creating additional capacity in products like transformers, electric cables etc. An attempt at overall improvement of the public enterprises in the State will be made during the plan period through improvement of management, diversification and expansion.

### **Mineral Development**

3.70 Kerala possesses sizeable deposits of mineral sands like monozite, ilmenite, rutile, sillimanite, zircon



and other atomic minerals, bauxite, clay, silica sand, graphite etc. But the progress achieved in the State under mineral exploration and industrial utilisation of minerals has been meagre. Geological surveys for locating mineral deposits are being conducted by the State Mining and Geology Department on a regular basis. The Department is also carrying out the statutory functions under the Mines and Minerals (Regulation and Development) Act, 1957 and Mineral Concession Rules, 1960 which include recommending to Government applications for grant of mining leases and prospecting licences, grant of certificates of approval, inspection of mining leaseholds, collection of royalties on major and minor minerals, prevention of illicit mining etc.

3.71 The main deposits of beach sands found in the coastal tract between Neendakara and Kayamkulam bar are being mined and processed by Messrs. Indian Rare Earths Limited and Kerala Minerals and Metals Limited. It is felt that apart from these areas which are at present being worked there are many other large areas in the hinterland and off shore tracts of this State which are potentially important. Clay is another industrial mineral abundantly available in many parts of the State. The reserves are estimated to be 72.4 million tonnes of China clay, 1.7 million tonnes of ball clay and 9.6 million tonnes of fire clay. In addition there are abundant reserves of brick and tile clays. The available information is however tentative and requires field work for delineation of different deposits and their mineability. Extensive deposits of silica sand occur as surface deposits in Shertallai Taluk of Alleppey District and the reserves have been tentatively estimated at 70 million tonnes. Graphite is another strategic mineral found in several parts of the State. But these deposits have to be carefully examined with regard to their economics of working, recovery of flakes and feasibility for beneficiation. For several decades limeshell has been considered as a minor mineral and therefore the State allowed private individuals and co-operative societies to exploit limeshell for production of lime and for construction and agricultural purposes. Owing to indiscriminate mining, large portion of shell deposits are left uncovered. No detailed estimates of lime shell deposits in the State have been made so far, except for certain pockets where investigations have been carried out recently. It would therefore be necessary to carry out detailed exploration to locate sizable deposits of limeshell along the coastal tracts. Bauxite of a fair grade has been located in Cannanore District and certain parts of Trivandrum and Quilon Districts. Steps are underway to establish a cement plant utilising the limestone deposits at Walayar in Palghat District.

3.72 In the Sixth Plan greater emphasis will be laid not only on the exploration of mineral deposits but also on their mineability, beneficiation, and ultimate industrial utilisation. With this aim in view the operations of the State Department of Mining and Geology will be further strengthened. It is proposed to set up special units in the Department to exercise Governmental control on exploitation, conservation, marketing and utilisation of valuable mineral resources of the State like gem stones, limeshell, silica sand and dimension stones.

3.73 Steps will be initiated during the Sixth Plan period to utilise the bauxite and graphite deposits available in the State for industrial purposes. The

Geological Survey of India has estimated the bauxite reserves in Kerala at 9 million tonnes. Of this 7 million tonnes are in the Nileswar region of Cannanore District. Kerala is in an advantageous position in respect of power generation. If an aluminium smelter can be commissioned in the State it will help to feed a network of units which are consuming aluminium metal in its various forms. The State Industrial Development Corporation has plans to utilise the graphite ores available at Nagapuzha near Thodupuzha for manufacturing graphite crucibles, graphite flakes and graphite powder. Since April 1977 the Kerala Mineral Exploration and Development Project established with the assistance of United Nations Development Programme is functioning in the State. Exploitation and evaluation of known and partially known mineral deposits is being done under this project. Necessary financial support to this project will be given during the Sixth Plan period.

### Transport and Communications

3.74 It is observed that this sector has been growing faster and to a greater extent than the industrial and agricultural sectors in the State. In addition to its developmental role by opening the interior of the countryside, this sector, by itself, has been contributing at an increasing rate to the State income. The rapid increase observed in this sector has also helped to provide employment opportunities, directly and indirectly, in a significant way.

3.75 The State's transport system consists of road, rail, inland water, sea and air transport. The development of rail and air transport is exclusively in the Central Sector. The investment decisions on these two modes are made by the Government of India and the State has been pressing for a more equitable share of the total capital investment on these modes.

3.76 The State investments in the transport and communication sector include investments on roads and bridges, public sector road transport, inland waterways, ports and harbours other than the major port at Cochin, and tourism. Total investments in these areas from the beginning of the First Plan to the Annual Plan 1979-80 has been about Rs. 133 crores which works out to about 8 per cent of the total State Plan outlay during this period and is inadequate considering the contribution of the sector to State income. At the all India level the proportion of outlay on transport and communications has all along been at a much higher level. The bulk of the State's investments in the past-about 68 per cent-have gone to the road sector. This has left very little to the other modes. For example, the total plan expenditure on inland water transport has only been Rs. 3.4 crores. In the context of the energy crisis, the importance of Inland Water Transport has increased significantly and it is necessary to enhance the Plan allocations for it.

3.77 The strategy for road development in the Sixth Plan should be to optimise the existing network by strengthening and improving the major roads in the system and by developing a judiciously selected number of link roads and lateral roads. This is really a big task for the State to handle alone. The Centre should help the State Government by taking over some of the important sections of the existing network as part of the National Highway system. Roads

like the Cochin-Madurai Road (280 km.) and the Bangalore-Mysore-Calicut Road (360 km.) which are of importance to Kerala have already been indicated by the Pande Committee (1980). In this connection, the request of the State Government to the Centre to declare the M.C. Road as a National Highway deserves favourable consideration. This would release substantial State funds for investments on lateral roads, village roads and other connecting links, helping, in addition, improvement programmes for the construction and repair of bridges and culverts. The employment generation schemes should be integrated with a well drawn out rural roads development programme to improve rural roads and also to construct new ones in the villages. Today the improvement of rural roads in the State is undertaken by two agencies viz. Public Works Department and the Community Development Department. In several other States this job is done by a single agency. A single agency under the Block will facilitate efficient management and effective monitoring.

3.78 As regards the development of road transport, the States' direct participation in the investment programmes has only been in respect of its contribution to the Kerala State Road Transport Corporation. Private investment in this area has been and still is very high and it plays a major role in Kerala's transport scene. Even in passenger transport, the State Public Sector Corporation owns only about a third of the total passenger bus fleet. While the role of private sector in passenger transport has to be clearly defined there is an urgent need to revitalise the working of the public sector Corporation. It is also necessary to provide the Corporation sufficient funds for investment on vehicles and other infrastructure facilities. The strategy for development of the KSRTC in the coming years should be (a) delineation of routes and areas of operation between the public and private sectors so as to avoid wasteful competition and revenue losses, (b) stabilisation of the existing operations before planning expansion, (c) workout a systematic programme for the replacement of old and obsolete vehicles (d) evolution of measures to improve operational efficiency at all levels (e) reduction of uneconomic routes to the extent possible (f) decentralisation of existing operations to bring better control and operational efficiency and (g) introduction of professionalism in the management.

3.79 Waterways constitute an important mode of transportation in Kerala. Maritime importance of the various ports like Trivandrum, Quilon, Cochin, Alleppey, Cannanore and Calicut was chiefly due to the availability of waterways extending right up to the midlands and affording easy transport of its costly and rare spices. The importance of the waterways was well recognised by the early rulers and good care was taken to keep the waterways navigable and wherever necessary artificial canals were constructed so as to link important centres of trade with the ports. When more attention was given to the faster modes of transport like roads and railways, the waterways got neglected. It has been accepted, especially in the context of the fuel crisis, that the water transport has certain inherent advantages and it should therefore have its rightful place in the integrated transport system of a region.

Today the Government of India is also alive to the problems of inland water transport and is committed to the improvement of waterways all over the country. It is a welcome development that the Ernakulam-Alleppey sector of the inland water system has been declared as national waterways. The Pande Committee is of the opinion that the entire West Coast Canal in Kerala satisfy the criteria for consideration as National Waterways.

3.80 Today there are three agencies which are engaged in the operative part of the inland navigation i.e. transport of goods and passengers. In the Sixth Plan, steps will be completed to integrate the water transport services and to entrust them to a single agency which can run the services on a more economic and efficient manner. An integrated programme for the development of inland waterways and coastal shipping should be undertaken taking into consideration the immense potential for development in the area of inland fisheries, tourism and industries-small and large-along the backwaters. Such an integrated approach would not only revitalise the activities of inland waterways and the minor ports of Kerala but also provide the much needed economic activity and thereby employment to the people in the coastal region which is one of the most backward tracts of the State.

3.81 Transport competes with other sectors for investment of capital and within transport each mode emphasises its relative importance. In the face of conflicting claims and objectives, long-range transport planning becomes more difficult but no less necessary. Such planning cannot solve all transport problems but in many cases a long term view clarifies issues and outlines areas of positive growth. In the Sixth Plan transport studies will be given special emphasis.

### Tourism

3.82 Kerala offers immense scope for the development of tourism. The efforts made to promote tourism in the past have not had the desired impact on this sector. Apart from being one of the important foreign exchange earners, tourism can also play a vital role in the overall development of the State's economy. The Tourism Department has been mainly functioning as a hospitality wing of the State Government. It is time a fresh look at tourism development in the State is taken. The Government of India is aiming at a tourist inflow of 35 lakh foreign tourists by 1990. Tourist inflow of the order of one lakh is expected in Kerala. Apart from increased facilities to accommodate the tourists, other infrastructure facilities will also have to be built up. This calls for large scale investment for promotion of tourism in Kerala's Sixth Plan. The entire strategy of tourism plan for Kerala revolves round the concept of travel circuits connecting important tourist centres catering to varied tourist interests. This has been done with a view to offering a package of facilities to tourists both domestic and foreign. This new concept envisages the flow of tourist traffic along predetermined centres of tourist interest.

### Education

3.83 Quantitative growth in education was the main objective of the first three Five Year Plans. The

inevitable consequences of this numerical growth were, inter-alia, a general decline in the quality of education. Hence, the quality of education was given some priority in the programmes under-taken in the Fourth and Fifth Five Year Plans. In spite of various measures undertaken such as revision of syllabus, examination reforms, inservice training to teachers etc., the achievements were not up to the desired level. What was grievously lacking in the educational system was the much needed structural and qualitative change. There is no effective co-ordination between the expansion of educational facilities and the growth of employment opportunities. Education in Kerala is used as an alternative to remaining unemployed, particularly so because the private costs of education are low and because there are no 'foregone earnings'. The increasing demand for higher education is being met by expanding facilities for arts, science and commerce education although the incidence of unemployment is the highest among such graduates. All these facts need to be taken into account while drawing up proposals for the development of education in the Sixth Plan.

3.84 In order to make education more relevant, the main thrust should be on three areas, namely:—

- (i) universalisation of elementary education;
- (ii) improvement of quality of education and
- (iii) vocationalisation of education.

3.85 Unlike other Indian States, the constitutional objective of universalisation of primary education for all the children in the age group 6-11 has almost been achieved in Kerala. However, we cannot claim a cent per cent enrolment ratio in the age group 6-11. It is estimated that about 10 per cent of the children in the age group 6-11 and 15 per cent of the children in the age group 11-14 are still outside schools.

3.86 Rapid expansion of educational development has created problems of accommodation and equipments in schools. Several primary schools, even today, are run in temporary sheds. The average class room space available is far below the norms prescribed by the Department. Inadequacy of furniture and equipments is another problem in many of the schools. In the northern region, several primary schools lack sites or buildings of their own. It has become more or less an annual feature that, during the monsoon in spite of all precautions, some of the old buildings collapse, sometimes resulting in casualties. Therefore, the improvement of physical facilities in schools should receive special attention in the Sixth Plan.

3.87 The present system of education is, by and large, academic and literary. It tends to create a bias for white collar jobs and neglects the development of skill and physical capacities. With a view to finding employment, the traditional type of learning needs to be restructured giving technical bias. It is therefore necessary to regulate the enrolments in the general academic streams of secondary and higher education to keep down the expansion of facilities in these stages to the minimum and to shift the emphasis to vocationalisation at the secondary stage. The main objective of vocationalisation should be the preparation of the post middle and post-high school leavers for

employment in different occupations and sectors of the economy. For this purpose, a variety of non-academic courses of terminal education and training, which are employment oriented and directly useful to the students, should be made available. These should be of a more substantial order than in the previous plans but still be experimental in nature in view of past experience. Until such time as we succeed in vocationalisation, the heavy rush of matriculates seeking admission for higher studies will continue. The existing annual in-take capacity for pre-degree in colleges can absorb only half the number of matriculates coming out annually. In order to meet the requirements of additional enrolment in the University level and to reduce the inter-district disparity in providing facilities, the starting of a few new colleges becomes inevitable in the Sixth Plan period. The policy should be to open new colleges only in backward areas. The existing facilities in terms of institutions, teaching personnel, equipments and buildings will be used intensively through the introduction of shift system in colleges. The Sixth Plan also envisages upgradation of colleges and starting of post-graduate courses in more colleges. The under-graduate and post-graduate courses will have to be restructured to make them more meaningful and relevant to the students and society alike. Non-formal programmes of higher education should be increased so that opportunities for higher education are available to all. Now, the main emphasis in the field of higher education, has to be on qualitative improvement. The major programmes proposed are diversification of courses, provision of laboratory equipments, improvement of library, production of text books in the regional language, introduction of autonomous colleges, faculty improvement and promotion of fundamental and applied research.

### Technical Education

3.88 At present, under-graduate education is being conducted in 6 Engineering Colleges. Facility for post graduate education exists in the two Government colleges and in the Regional Engineering College. Also, facilities exist in the two Government colleges for part time Engineering degree course for Diploma holders. The other institutions existing in Kerala in the field of technical education are 18 polytechnics and 21 Junior Technical Schools. There are also pre-vocational training centres which provide technical education to drop-outs from schools, in selected trades.

3.89 There was considerable expansion of technical education in the Second and Third Plans. The enrolment in Engineering Colleges and Polytechnics increased on a wider scale with the result that the supply of trained personnel was in excess of demand. The unplanned growth of technical education resulted in the emergence of unemployment among the technical graduates. As a preventive measure, annual in-take in the technical institutions was reduced. The Fourth and Fifth Plans did not witness considerable expansion in the number of institutions. Improvement of quality of education was the key note of the Fourth and Fifth Plans. The Sixth Plan will continue to observe restraint in opening new Engineering Colleges. Action will be taken to start only one college. In the case of polytechnics, the opening of a few institutions in the neglected areas is inevitable. The Plan provides for a phased programme of modernisation of facilities, reduction of wastage and stagnation, integration of

curriculum development and faculty improvement. The programme of post-graduate education and research in engineering will be stepped up and the Trivandrum Engineering College will be upgraded through a variety of measures.

## Health

3.90 Although Kerala had a late start in the field of modern medicine, it has made, substantial progress in the past three decades. It was in 1951 that the first medical college was established. In 1950-51 there were only 197 allopathic medical institutions in the State and the total number of beds was only 6752. Both the number of institutions and beds have registered a tremendous increase and at the end of 1978-79 there were 898 allopathic medical institutions and 29,947 beds. This appreciable increase in beds is not reflected in the bed-population ratio due to the simultaneous increase in the population. The number of beds per lakh of population was 119 at the end of 1978-79. Although the State has achieved the bed population ratio of one per thousand, there is wide regional disparity in the availability of beds. The bed-population ratio is less than the desired norm in the districts of Idukki, Malappuram, Palghat, Quilon and Cannanore.

3.91 The Indian systems of medicine have greater popularity in Kerala compared to the other parts of the country. The number of institutions under this system at the end of 1978-79 was 474 with 1438 beds. Similarly there were 143 homeopathic institutions in the State at the end of 1978-79 with 325 bed facilities.

3.92 Mere figures and statistics do not reflect the true picture of the quality of medical care available in the country. The High Power Committee on Health Services appointed by the State Government has studied and analysed all the problems and drawbacks in the present set up and suggested remedies to rectify the defects. The general drawbacks pointed out by the Committee are over-crowding, lack of cleanliness, inefficient emergency services, unserviceable state of many costly items of equipment and gross inadequacy of drugs and hospital supplies. The number and distribution of various institutions are not need based leading to the concentration of institutions in certain regions, especially in urban areas. There is gross disparity in the number of institutions from panchayat to panchayat, municipality to municipality, taluk to taluk and district to district.

3.93 The pattern of institutions suggested by the Committee is as follows:—

- |                           |   |
|---------------------------|---|
| 1. District Hospital      | one for each district   |
| 2. Intermediate Hospital  | one for every 4 lakhs population  |
| 3. Primary Health Centres | one for every 80,000 population reduced by the number of intermediate hospitals.                    |
| 4. Basic Health Units     | one for every 20,000 population reduced by the total number of P.H.C.s. and intermediate hospitals. |

- |                |   |
|----------------|---|
| 5. Sub Centres | one for every 5000 population reduced by the total number of intermediate hospitals, P.H.C.s. and Basic Health Units. |
|----------------|---|

3.94 The distribution of institutions on the above lines will reduce the regional disparities the removal of which should be an important strategy to be adopted during the next 10 to 15 years.

3.95 Another important strategy will be the conversion of taluk hospitals into full-fledged hospitals in a period of 10 to 15 years, with all the specialities and adequate number of beds. The present number of 100 beds is very much below the requirement. Therefore, the objective should be to raise the bed strength from 100 to 200 and also to provide all the specialities for eye, E.N.T., dentistry, paediatrics, skin and venereal diseases. Development and standardisation of the district hospitals into full-fledged referral hospitals is also needed.

3.96 At present there are four Medical Colleges in the State at Trivandrum, Alleppey, Kottayam and Calicut. Alleppey and Kottayam Medical Colleges have not developed to the full extent. Therefore the immediate necessity in the field of medical education is to develop the Medical Colleges at Alleppey and Kottayam. There is also urgent need to improve the quality of teaching, training and research.

3.97 Though considerable investment has so far been made on the health sector, full advantage is not being taken of the existing health care facilities. There is demand for more institutions and in-patient facilities and for better quality medical and paramedical services. The approach to the health plan for the coming five years is guided by the following considerations:—

- (i) to correct the regional imbalances by creating the necessary infra-structure in rural areas;
- (ii) to improve the quality of medical services by strengthening the specialised medical and paramedical personnel and providing sufficient quantity of medicines and essential medical equipments;
- (iii) to ensure optimum use of medical facilities by avoidance of wastage, under utilisation and sub standard performance by strengthening management and supervision. Hospital administration is to be given special attention;
- (iv) to link health care with nutrition facilities in medical institutions especially in the case of children and to introduce a school health care programme;
- (v) to give more importance to preventive aspects; and
- (vi) to revitalise the clinical facilities already available at the taluk hospitals by providing necessary equipments and other accessories.

3.98 These measures will be undertaken to the extent funds are available for this sector within the over-all plan, as stage I of the implementation of the Report of the High Power Committee.

3.99 There are clear indications that the rate of growth of population in the State is slowing down and the 1981 census is expected to confirm this. This seems to be the combined effect of awareness spread by the family planning programme among the educated and literate in the context of improved health standards and the increase in the age of marriage caused by unemployment. When unemployment goes down as a result of development, there may be a tendency for the age of marriage to come down again. Family planning programmes will, therefore, be continued to be pursued with vigour.

### Water Supply and Drainage.

3.100 In the case of water supply, Kerala stands first among the various states in India. L. I. C. assistance enabled the State to take up many new schemes under water supply since 1971. By the beginning of the year 1979-80, 29 urban water supply schemes were in operation covering all the towns in Kerala. Similarly 722 rural water supply schemes were commissioned up to the end of 1978-79. The overall population coverage in urban and rural areas are 65 per cent and 26 per cent respectively.

3.101 The villagers of Kerala mainly depend on well water for drinking purpose. However, in the case of hilly areas and the coastal regions there are difficulties in using well water for drinking purpose. So far as hilly areas are concerned, the wells are very deep and fail during summer. In many hilly places, pure drinking water is not available. In the coastal regions, the problem is salinity of water. The provision of pure piped water in both these regions is an urgent need. So also 100 per cent coverage of water supply in urban population is necessary. Steps will have to be taken to augment and extend the water supply in accordance with the requirements of increasing urban population. The policy of Government is to implement rural water supply schemes as remunerative schemes with loan assistance of LIC of India. This will be continued in accordance with the availability of funds from Government and financial institutions.

3.102 Urban sewerage and rural sanitation have received very low priority in the previous plan periods. All the towns in Kerala except the Corporations of Trivandrum and Cochin have no sewerage facilities. During the year 1978-79, three drainage schemes were taken up—one each in Quilon, Trichur and Kozhikode. The reason for low priority in the case of urban sewerage schemes is that these schemes require large investments. In a heavy rainfall region like Kerala, the prevention of water-borne diseases requires effective drainage. The programmes will be taken up in a phased manner during the next ten years so that there is progressive coverage.

3.103 So far little has been done in the field of rural sanitation. The E.S.P. type latrines are largely acceptable in rural areas. As the scheme involves very low financial investment, it can be easily given high priority. It would help to improve the sanitary conditions of the rural people. Entire scheduled caste and scheduled tribe colonies and settlements will have to be covered by this scheme.

3.104 Keeping in view the considerations outlined above, the development strategy in the coming years may be guided by the following objectives:—

1. Augmentation of existing urban water supply schemes to achieve 100 per cent coverage of urban population;
2. In the case of rural water supply, priority will be given to places of high elevation and to coastal regions. The entire coastal region will have to be provided with pure drinking water. Harijan colonies and the beneficiaries of housing schemes from the scheduled castes and scheduled tribes will have to be provided with open draw wells;
3. Special attention will be given to sanitation schemes. As the E.S.P. type latrine is largely acceptable to rural areas, sufficient funds will be provided for this scheme, so as to benefit maximum number of rural people. Priority may be given to scheduled caste and scheduled tribe families. Efforts will be made to cover all the towns in the State under drainage scheme within a period of ten years; and
4. The programmes coming under this sector will be implemented as far as possible as remunerative schemes with loan assistance from LIC and other financial institutions.

### Housing

3.105 The housing problem is acute in Kerala owing to the high population pressure in the State. In the rural areas of the State the programme of providing houses to the rural poor has become as important as providing remunerative employment to these people. In the urban areas shortage of house sites and exorbitant value of land have reached menacing proportions. Soaring prices of building materials as also their shortage have further aggravated the housing problem in the State.

3.106 State sponsored housing programmes in Kerala was initiated during the First Five Year Plan period. In the initial stages of the plan era schemes under housing for industrial workers and low income group were taken up. Gradually new schemes by the State Government and State approved agencies were implemented. In spite of the past developments in the housing sector, the housing problem in the State continues to be quite grave. It is estimated that 2.5 lakh housing units will have to be constructed annually in the State for the next 15 years to provide for the growing population, replacement needs and to gradually wipe out the existing shortages estimated at 11 lakh housing units. As against this annual requirement the present rate of construction is estimated at 80,000 housing units only. This leaves an unfilled gap of 1.7 lakh housing units annually for the construction of which added efforts at mobilising institutional finance become necessary. Housing shortage in the State is more acute among the weaker sections of the society who have neither the resources nor the capacity to tap institutional finance. Taking into consideration all the above factors into account the following objectives are laid down in the Sixth Plan in respect of housing:

- (i) stepping up of house construction activity to gradually wipe out the existing shortages; and

- (ii) giving greater weightage to the housing problem of the rural poor especially the landless agricultural labourers and other weaker sections of the community.

For the realisation of these objectives following strategies will be adopted:

- (i) augmentation of the resources of the institutional agencies like the State Housing Board, Co-operative Housing Federation and its primaries, the Development Corporation for Scheduled Castes and Scheduled Tribes etc. to enable these bodies to absorb institutional finance for house construction in a substantial way;
- (ii) promotion and encouragement of self-help housing;
- (iii) provision of house sites and dwelling houses for landless labourers in rural areas;
- (iv) provision of housing accommodation to the economically weaker sections of the community;
- (v) promotion of low cost housing using locally available materials;
- (vi) promotion of group and community housing;
- (vii) provision of houses to urban slum dwellers;
- (viii) promotion of research and development relating to low cost building materials of durability and evolution of suitable designs of low cost houses; and
- (ix) streamlining the administrative apparatus for the effective implementation of the various housing programmes in the State.

### Urban Development

3.107 Detailed planning of capital outlays for urban development has become essential to bring about order in land use and for the creation of facilities for healthy living of the urban community. Urban problems common to cities in India are surfacing in Kerala too. It is necessary to prevent them from assuming unmanageable proportions as they have in many cities of the country. In Kerala, the schemes under urban development are implemented by the Kerala Urban Development Finance Corporation, Department of Town and Regional Planning and Department of Municipality.

3.108 The Kerala Urban Development Financial Corporation is giving loans to urban local bodies for implementing remunerative schemes. The Department of Town and Regional Planning has prepared Master Plans for 17 urban local bodies including the three Municipal Corporations, Development Plans and Traffic Operation Plans for the urban local bodies and a State Spatial Development Plan, locating the important growth centres in the State. During the year 1979 a High Power Town and Country Planning Board at the State level was formed to guide and advise various planning authorities in the State and to co-ordinate

their activities. Slum clearance/improvement scheme is meant for the gradual eradication of slums in the city areas by providing better housing facilities, ensuring environmental hygiene and essential services such as water supply, street lighting and communication facilities. In the Sixth Plan emphasis will be given to the following aspects:

- (i) Programmes of slum improvement for solving the problems of urban poor;
- (ii) town improvement works such as construction of roads, culverts, bridges, drains, etc., in small towns; and
- (iii) remunerative schemes of Kerala Urban Development Finance Corporation.

### Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes

3.109 The estimated population of scheduled castes as on 1st July 1979 is 22 lakhs out of the State's estimated total population of 252.5 lakhs. The scheduled tribe population is 2 lakhs according to the socio-economic survey (1977-78) conducted by the Bureau of Economics and Statistics. As the previous plans concentrated mainly on educational schemes, Kerala has attained good position in respect of literacy of scheduled castes and scheduled tribes. The enrolment ratio of scheduled castes in primary classes has almost reached the level of forward communities. The percentage of scheduled caste students studying in primary and secondary class to total scheduled caste population during 1979-80 is 27.45 per cent, while the corresponding ratio for the general population is 22.37 per cent. In the case of scheduled tribes the percentage would work out to 19.6 per cent.

3.110 According to the strategy adopted during the Fifth Plan period, all departments and other agencies implementing plan schemes are to set apart 10 per cent of the development outlay exclusively for the schemes benefiting scheduled castes and scheduled tribes. During 1979-80, schemes suited for scheduled castes and scheduled tribes were listed out from the general sector and a Special Component Plan was prepared. A Special Component Plan for 1980-81 has also been prepared to ensure the proper utilisation of the flow of benefits from the general sector to scheduled castes. Similarly Tribal Sub Plans were prepared for areas having more than 50 per cent tribal population. It has been possible to cover about 65 per cent of the total tribal population in India under Tribal Sub Plan. But in Kerala only 37 per cent of the tribal population was covered by this. So special programmes will have to be formulated to benefit those tribal people living outside the Sub Plan area. The problems of each area will have to be defined and appropriate programmes will have to be formulated for them.

3.111 The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes registered during 1972 is undertaking programmes of economic uplift of scheduled castes and scheduled tribes. The Corporation has schemes like construction of houses, loan assistance for the purchase of agricultural land and starting industrial units etc. The Corporation is availing loan assistance from HUDCO for the construction of houses. A special central assistance of Rs.100

crores to the States has been provided in the current year's Central Budget to act as a catalyst in the generation of more funds from other sources including financial institutions for an integrated programme of promotion of socio-economic conditions of scheduled castes. This will enable the State Government to implement more schemes through the Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes. It will be necessary to equip the Corporation by providing more funds so that it can function as a guarantor and promoter to provide missing inputs wherever necessary to scheduled castes and scheduled tribes. It will also be necessary to ensure that the activities of the Department and the Corporation are properly co-ordinated.

3.112 Funds earmarked for the 'Welfare of Backward Classes' sector are essentially to supplement those provided in general sectors. General sector programmes benefiting scheduled castes and scheduled tribes will have to be picked up and planned in such a way as to suit the needs of these sections of the community. Special importance must be given to those schemes which help to improve the basic needs like education, housing and drinking water. Better co-ordination with all departments implementing general sector schemes will have to be ensured, so as to utilise fully the due share of scheduled castes and scheduled tribes. The various sectoral programmes particularly in Animal Husbandry must be family-oriented. Adequate financial support to the Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes should be given so that they could avail of more funds by way of institutional finance. During the Sixth Plan period in addition to continuance of education schemes, greater emphasis will be given to programmes for economic uplift by undertaking realistic schemes which will ensure that the benefits reach the scheduled castes and scheduled tribes. A special project will be prepared for the economic advancement of 50,000 scheduled caste families through a package of measures.

### Labour Welfare

3.113 The labour policies of the State Government have been evolved with a view to support the main plan objectives of ensuring a reasonable wage and a minimum standard of living to the workers. Consistent with this objective necessary instrumentalities have been brought into force. These include the apparatus for the peaceful settlement of industrial disputes and fixation and enforcement of minimum wages. Minimum wages have been fixed in the State in all organised industries and a majority of the industries in the unorganised sector including coir, handloom, beedi, toddy-tapping etc. The Kerala Agricultural Workers Act, 1974 which ensures security of employment, fixation of working hours, payment of minimum wages and other benefits and fair settlement of disputes is a major step in this direction. Apart from these, the Government have created various welfare funds for the benefit of the workers.

3.114 However, there are serious gaps in the existing arrangement for labour welfare. Workers' participation in management could not be so far ensured. Industrial peace through long-term agreements with labour on wages and related matters could not make much headway. In the absence of an integrated wages, income and price policy, glaring disparities in wages exist between the various sectors of employment,

between various agencies of Government, as well as between wages and other incomes. Measures for the safety, health and welfare of workers engaged in construction activities are mostly wanting. Measures taken for the rehabilitation of bonded labour have been feeble, the only existing programme being a small centrally sponsored scheme for the same. These gaps will have to be effectively bridged during the Sixth Plan period.

### Social Welfare

3.115 The social objective of planning should be the amelioration and improvement in the way of life of the weaker sections of people. The importance of social welfare programmes are basically meant for the overall development of the weaker sections of the society, especially, the socially and physically handicapped. It is imperative to formulate suitable social welfare programmes to create a sense of self confidence, and increased self reliance among these socially and physically handicapped persons. The various programmes of social welfare fall broadly under seven heads viz., programmes for children, programmes for women, composite programmes for women and children, schemes for maladjusted groups, programmes for physically handicapped persons, programmes for destitutes, aged, infirm and social legislation.

3.116 The priorities in the programmes for child welfare should be preventive and promotive in nature covering child health, immunisation programmes in rural and tribal areas, nutrition for infants, education and training of orphans and destitutes and facilities for the care, education, training and rehabilitation of handicapped children. In order to create public awareness, the mass media will have to be used extensively.

3.117 The strategy of women's welfare programmes is drawn up on the following lines:

1. to link condensed courses for women with functional courses like training programmes for auxiliary nurse/midwives, balasevikas etc.;
2. to give financial assistance to voluntary organisations which offer vocational training facilities;
3. to give due consideration to Kshemakendras, anganawadies, creches and self-employment programmes;
4. to chalk out schemes providing part-time employment and homework service for needy women which will help to improve the economic base of the families and;
5. to have expanded programmes for aiding establishment of Working Women's Hostels.

3.118 The programmes for the welfare of the handicapped will have to be based on education, vocational training, rehabilitation, financial assistances, self-employment, orthotic and prosthetic aids etc. A number of schemes for the benefit of the handicapped will be initiated in 1981—the U.N. International Year for the Handicapped. The State Development Corporation for the Handicapped will be helped to set up assembling

units for artificial limbs in collaboration with the Central Government's manufacturing units and to assist rehabilitation by helping in self-employment. The welfare programmes intended for the poor and the destitutes should mainly concentrate on building up of welfare institutions, destitute homes, abalamandirs, industrial units, care homes etc.

3.119 In the case of social defence programmes, the probation service will have to be re-oriented and strengthened taking into consideration the increasing number of juvenile delinquencies. Children's Act, Probation of Offender's Act and such other legislations should be earnestly implemented and extended to areas not yet covered by them with necessary supportive services. Due consideration should be given to beggar relief programmes and Borstal schools.

3.120 Decentralisation of social welfare activities is a necessity for the proper administration and implementation of these developmental and welfare schemes. Facilities for training and research on social problems is also inevitable.

### **Nutrition**

3.121 There are six different types of nutrition programmes now being implemented by different agencies: the Applied Nutrition Programme and One-meal a day Programme implemented by the Community Development Department, the Special Nutrition Programme implemented by the Social Welfare Department, the Health based Nutrition Programme implemented by the Health Department and the School Mid-day Meals Programme implemented by the Education Department. Besides, there is also a non-plan scheme of World Food Programme implemented by the Social Welfare Department. Excepting the programme handled by the Education Department, the remaining programmes are those intended for pre-school children. The nutrition content varies from one programme to another and often more than one programme is implemented in the same area and through the same voluntary agency. The school programme and the health programme are institution-based and they may continue to be administered by the concerned Departments. The other programmes could well be administered by a single agency which should ensure a uniform nutrition content in all the programmes. This will contribute to greater effectiveness and co-ordination and help avoid waste and duplication of effort. The plan outlay has been suggested on the basis of nearly identical nutritional content.

### **Minimum Needs Programme**

3.122 The National Minimum Needs Programme was introduced in the Fifth Five Year Plan (1974-79) for bettering the living conditions of the poorest strata of society through programmes such as elementary education, drinking water, medical care, rural roads and rural electrification. The strategy adopted in the Plan was to give overriding priority to provision of these facilities in the respective sectors of development. In the Draft Plan for the five year period 1978-83 two more components, viz; adult education programme and housing for landless labour households, were introduced in the Revised Minimum Needs Programme. According to the Plan frame for 1980-85 the following are the

components in the Minimum Needs Programme of the Sixth Plan.

- i. Elementary Education
- ii. Rural Health
- iii. Rural Water Supply
- iv. Rural Roads
- v. Rural Electrification
- vi. House sites for Landless Labourers
- vii. Environmental improvement of Urban Slums and
- viii. Nutrition

3.123 The all India Plan frame emphasises that the minimum needs programme should receive priority in the allocation of resources, and should be supplemented by the wider programme in the respective sectors.

3.124 The level of development achieved by Kerala in respect of most of the components included in the Minimum Needs Programme is relatively better than in many of the other States in India. This has necessitated marginal deviations from the all-India norms adopted for drawing up schemes under the various items of the Minimum Needs Programme. Sufficient allocations are being provided under the different programmes to maintain the tempo of development already achieved.

### **Science and Technology**

3.125 Application of science and technology has been an integral part of the strategy of economic development in the country under the Plans. Growth of the economy and increases in sectoral productivity largely depend upon the effectiveness with which we could harness our natural and human resources potential through a judicious application of scientific methods and modern techniques. This will be possible only when the scientific temper pervades all sections of society. Acquisition of scientific knowledge and knowhow as well as their application in solving the country's problems of production facing the various sectors of the economy should, therefore, be the basic objective of developing science and technology in the State. Modernising the curricula in schools and colleges, strengthening the facilities for research in Universities and technical institutions, fostering specialised institutions engaged in applied research, are some of the efforts needed to strengthen the foundations and broaden the base for understanding science and its practical application. Equally important is to popularise science among the working people and extend to them the know-how.

3.126 Various branches of the economy of Kerala are beset with practical problems which need scientific approaches and solutions. The commercial exploitability of many of the known minerals are yet to be established. Detailed surveys, mapping, and precise estimation of mineral potential as well as the study of appropriate technology and methods of exploitation are therefore important. Control of diseases and pests, appropriate cropping pattern and agricultural practises, efficient methods of water management and ground water exploitation are some of the pressing problems which call for scientific solutions. Development of



animal husbandry, expansion and modernisation of fisheries, development of forest-based industries, raising the technological level of traditional industries, linkage of production centres and markets through an optimum mix of modes of transportation and so on very much depend on how we could adapt modern technology to situations in Kerala.

3.127 The strategy for development of Science and Technology in Kerala under the Sixth Plan will be:—

- (1) to introduce a science base to education by modernising the syllabi and curricula of schools and colleges;
- (2) to strengthen the laboratory and research facilities;
- (3) to reorient the pattern of technical education to meet the emerging needs for skills and know-how;
- (4) to strengthen specialised institutions in applied research;
- (5) to popularise science;
- (6) to pay greater attention to a creative extension of science and technology to a wide range of activities and problems relating to agriculture, land utilisation, forestry, irrigation, water management, power, aquaculture and mariculture, animal husbandry, poultry, and traditional industries;
- (7) to intensify mineral prospecting and survey with a view to developing industries having high value added potential;
- (8) to develop low cost housing; and
- (9) to introduce the innovative methods in solving problems in public health, soil erosion, ground water exploitation and tribal development.

#### **Plan Implementation**

3.128 A good Plan presupposes efficient and effective implementation. At the same time, if the machinery for implementation is not equal to the task, even a well conceived Plan might flounder. It is understandable that since the assumptions behind Plans may change, mid-course correction to deal with emergent situation and unforeseen circumstances may be necessary. But only a determined effort to move ahead on the charted course of action will help to achieve the goals envisaged in the Plan. In the past, there has been a wide gap between Plan and performance. Imperfections in policies and instrumentalities have resulted

in glaring distortions in programme implementation. Inadequacies in project planning and appraisal have not only led to inordinate cost escalation, but have also delayed the accrual of benefits to the people. Redundant levels of administration and centralised financial control have made the delivery system weak and ineffective. There have been too many agencies operating similar programmes or directed to the same target group. Consequently, the impact of many of these programmes have been weak and dispersed; the problem of co-ordination has also been difficult. There has been excessive concern for spending money without due regard for the results achieved. Monitoring and review of the programmes and plan schemes and projects have been tardy. Consequently, timely remedial actions have been wanting. Therefore, a comprehensive effort will be necessary to overhaul and tone up the machinery for plan implementation.

3.129 It is important that the strategic goals and objectives of the Plan should be clearly perceived by all the developmental agencies of the Government. Policy formulation and programme designs should be imbued with these purposes. Adhoc approaches and un-coordinated changes in policies and programmes will have to be carefully avoided. Secondly, the departments should strengthen their own capability in project identification and programme formulation. The costs and benefits of projects should be carefully weighed. Planning and scheduling of projects will help their smooth and timely completion. Thirdly, administrative machinery should be streamlined with a view to eliminate days functional layers as well as to strengthen field agencies. Powers conferred on operational agencies should be commensurate with their responsibilities. A carefully worked out scheme of delegation will be helpful in this respect. Fourthly, the the problem of co-ordination at the District and Block levels should be given utmost attention. Many overlapping programmes should be integrated. Programmes aimed at the same target group should be well co-ordinated. The District Administration Act and the strengthening of planning functions at the District level should facilitate such integration and co-ordination. Fifthly, the monitoring cells in the various departments should be adequately strengthened and a proper reporting system introduced. The Annual Plan should be broken into quarterly physical and financial targets in terms of which, the Plan schemes and projects will have to be reported and reviewed. Administration at the top levels of the Government should take keen interest in reviewing the progress of Plan programmes so that timely action may be initiated to correct deficiencies and imbalances. Involvement of the State Planning Board in the scrutiny of project reports of large and important schemes as well as in highlighting gaps between Plan and performance could help to initiate co-ordinated measures towards plan implementation.

## FINANCIAL RESOURCES

Conditions in all developing economies tend to limit both increases in voluntary savings and their investments in development projects. To break the persistence of stagnation with low rates of saving and investment, collective thrift will have to be imposed by the governmental authorities at different levels to raise the rate of economy's investment without inflation. It is only the State and its subsidiary levels of government that can increase real savings, especially in the early stages of development.

4.2 Increasing government savings, however, requires the pursuit of vigorous fiscal policies designed to reduce current expenditures and even more important, to produce greater revenues from an equitable system of taxation. In developing economies generally, this would require a thorough re-organisation of the tax system and the difficult task of trimming traditional expenditures. Whether or not savings produced by fiscal processes will result in output-increasing investment depends on the success of the State in transforming such savings into productive forms of investment. It has, however, been an observed phenomenon that reluctance to tackle the great challenge of fiscal management has led developing economies to show preference for inflationary finance, which proves self-defeating and interferes with development itself. Stable growth can be ensured only through non-inflationary methods of financing development programmes.

4.3 On the specific question of resources for financing the projected outlays on the State's Sixth Five Year Plan, the factors that have to be taken into account are (1) the magnitude of resources that the State would be able to garner through avenues such as surpluses on budgetary account, additional taxation, share of small savings collections, borrowings from the market and development agencies, and surpluses of State owned public sector undertakings (2) Central assistance to support State sector programmes (3) Direct investments by the Central Government in different sectors and (4) institutional finances for supporting the private sector plan outlays.

4.4 In financing the State sector outlay of nearly Rs. 2000 crores, the two broad components are State's own resources and share of Central assistance. As far as State's share is concerned, adequate surpluses would have to be generated through the budgetary operations of the Government. This would involve not only strict economies in all non-development expenditures but also a concerted effort to raise additional resources both by way of taxation and profits of public sector undertakings. As far as economy in expenditure is concerned, a thorough review may be undertaken of all the existing items of expenditures by way of different subsidies with a view to reducing them to the barest possible minimum. In regard to the profits of public sector undertakings, it is a well known fact that many of these undertakings are not functioning on a sound basis and most of them would

require considerable streamlining and professionalisation of their management. This task has to be undertaken on an urgent basis before the losses of public undertakings make further inroads into the capital investments on them. After all, the purpose of an expending public sector is to find alternative sources of revenues to taxation which has a limit beyond which it would create distortions in the economic system. Unless public sector undertakings are made to work at a profit, the economy's propensity to save would be adversely affected. Economic pricing based on commercial principles together with a concerted effort to minimise operational expenditures should constitute the guiding principles in the functioning of the public sector undertakings.

4.5 On the question of additional taxation, many suggestions have been made in the past by the various Committees which went into it. There would seem to be further scope in raising more resources through land taxes, sales taxes, electricity and transport sectors as well as the social service sector. A detailed examination of these areas of additional resource mobilisation would have to be undertaken so that pragmatic proposals could be formulated. Considering the investment requirements as presently projected in the Sixth Plan, a substantial effort would be needed during the next year so as to maximise the revenue over the remaining period of the Plan. Among other components in the basket of State's Plan resources is the share of its open market borrowings decided by the Reserve Bank of India and the Central Government. Effort would have to be made to get the maximum possible share for which there should be purposeful dialogues with the Planning Commission and the Government of India.

4.6 Central assistance would be a crucial factor in determining the size of the State's Sixth Plan. It may be pointed out in this context that for an approved outlay of Rs. 1,200 crores on the State Plan for the Five Year Plan period 1978-83, Centre's contribution was fixed at Rs. 430 crores. Considering the total Central assistance of Rs. 13,000 and odd crores for all the States taken together, our share worked out to only 3.3 per cent. Being an economically backward State with high population pressure, Kerala could legitimately demand a larger share out of Central Assistance. We have to give serious consideration to the question as to whether the existing Gadgil Formula and the LAMP (Income Adjusted Total Population) formula need changes and modifications. Also, the practice of earmarking Central Assistance for items like Hill Areas Development, has to be gone into. The point that is to be emphasised here is that such special devices and earmarking methods have considerably diluted the essence of the so-called Gadgil Formula which now applies only to a part of the total Central assistance disbursed to the States.

4.7 On institutional finance, Kerala's performance has been far from satisfactory. Our aggregate share

of such finance, mostly availed of for private sector investments, has been quite low, being around 3 per cent only. The flow of institutional finance to a region is not an automatic phenomenon. It will require a great deal of effort in preparing and formulating bankable projects, for which we should have the necessary technical expertise. Project formulation is an inseparable element of developmental planning. To attract sufficient institutional funds, we have to place before the financial institutions well-articulated and sound projects which

are ready for immediate absorption of funds when they are made available. The development departments would have to do considerable amount of homework and their functioning should be so streamlined as to enable them achieve this objective.

\* 4.8 The details of estimates of State's own resources for financing the plan are being worked out and these will be submitted to the Planning Commission separately.

## SECTORAL PROGRAMMES

The Sixth Plan objectives and strategy envisaged for the different development sectors have been spelt out in the previous chapters. In this chapter short descriptions on the various schemes and projects proposed under the different heads of development are provided. The sectoral programmes and schemes have been drawn up taking into account the national development objectives of planning as also the development strategy evolved for the different sectors in the State Plan. In formulating the Plan schemes the special features of the State's economy in respect of resource endowments, constraints and potentialities as well as the pressing needs and aspirations of the people have been given due consideration.

**Agriculture and Allied Sectors.****Agriculture:***1. Direction and Administration**Reorganisation and Strengthening of Agricultural Administration*

The extension machinery of the Department of Agriculture, has all along been following a selective crop-oriented approach and is confined to crops like paddy, coconut, pepper and sugarcane. All the 489 Intensive Paddy Development Units, 187 Coconut Package Units, 30 Pepper Package Units and 3 Sugarcane Development Units put together serve only around 10 per cent of the net area under cultivation in the State. This has necessitated farmers growing different crops to approach different sources for technical know-how and other services. It is therefore necessary to have a re-organisation of the agricultural extension machinery to cover all the farm holdings and farming community on an area-wide basis. The Kerala Agricultural Extension Project based on the Training and Visit System of extension as approved by the World Bank is intended for this purpose. Under this system a hierarchy of agricultural extension personnel attend to agricultural extension work starting with the village level workers at the grass-root level covering 500 to 2500 farming families according to density, an Agricultural Extension Officer at Agricultural Development Unit level (covering 2 to 3 panchayats on an average), subject matter specialist at Sub-Divisional and District levels, and crop and discipline wise specialists at State level. On introduction of this new system of extension, the personnel from the crop-oriented extension units will be re-allocated to this project. The outlay of Rs. 11 crores proposed is to meet the pay and allowances of the additional staff, purchase of vehicles, issue of vehicle advance to field staff, construction of office-cum-residence for field staff, training expenses and other operational costs.

*1. Multiplication and Distribution of Seeds*

High yielding varieties programme being the major strategy for increasing rice production in the

State, the target is to increase its coverage from 3 lakh hectares to 6 lakh hectares during the Sixth Plan period. The support of an efficient programme for the supply of HYV seeds in time is a decisive factor in this regard. As the State Seed Farms are mostly concerned with production of foundation seeds, selected farmers have to be enlisted as registered growers and entrusted with the multiplication of the foundation seeds of HYVs supplied by the State Seed Farms. The quality of the seeds produced by the registered growers also has to be ensured.

*1. Production and Distribution of Quality Seeds*

The plan outlay proposed is for organising seed multiplication through registered growers in the districts of Alleppey, Kottayam, Ernakulam, Trichur, Palghat and Wynad area of Calicut district by extending financial assistance of Rs. 150 per hectare to the registered growers for meeting a part of the additional production expenses. Procurement and distribution of seeds thus produced will be entrusted to Co-operatives, Agricultural Development Centres, or other farmers' organisations. In areas where such agencies are not forthcoming the department will resort to direct procurement and distribution. The plan provision is to meet the incentives to the registered growers, subsidies on the cost of seed and handling charges towards procurement and distribution.

*2. Inspection, Certification and Establishment of a Seed Testing Laboratory*

In order to cope with the seed certification and quality control measures, the Seed Testing Laboratory at Alleppey requires further strengthening by way of additional equipments, building etc. The outlay is meant for this purpose.

*3. Development of Existing Seed Farms*

The Department of Agriculture is maintaining 33 seed farms. Many of these require additional facilities like irrigation, land development, fencing, buildings, stores etc. for augmenting the foundation seed production. The Plan outlay is for providing such facilities.

*4. Seed Multiplication in Kayal Lands*

The outlay is for providing infrastructure facilities to the seed multiplication farm in the Kayal lands at Chulatheruvu Government Farm.

**III. Agricultural Farms***District Agricultural Farms*

In order to meet the increasing demand for quality planting materials of the perennial crops on which massive rehabilitation, replanting and fresh planting programmes are envisaged in the Sixth Plan, it is proposed to augment the facilities in the existing

District Agricultural Farms for enhanced production. Besides, two District Agricultural Farms are to be established in Idukki and Trichur Districts where no such farms exist at present. The provision is meant for the above purpose.

#### IV. Manures and Fertilizers.

Soils of Kerala are continuously depleted of the plant nutrients owing to high cropping intensity, high rainfall conditions and undulating topography. Sustained production of crops can be ensured only through maintenance and improvement of soil fertility. Therefore, extensive and increased use of manures and fertilizers has to be ensured to achieve the crop production targets.

##### 1. Procurement and Distribution of Green Manure Seeds

In view of the acute shortage for organic manures and high cost of fertilizers, raising of green manure crops and incorporation of it in-situ is the cheapest method of enriching the fertility of soil. It is therefore proposed to encourage the cultivation of green manures by giving an incentive of 33 1/3 per cent subsidy on the cost of green manure seeds. The outlay is for meeting the subsidy.

##### 2. Soil Testing Service.

An efficient network of soil testing service is a prerequisite for optimising the economy in fertilizer use. At present soil testing laboratories are functioning in all the Districts except Idukki and Kozhikode. The Plan scheme envisages the establishment of one mobile soil testing laboratory attached to each District Soil Testing Laboratory, construction of buildings for the District and Central Soil Testing Laboratories, establishing two District Soil Testing Laboratories in Idukki and Kozhikode, and continuance of the existing Soil Testing Laboratories.

##### 3. Supply of Soil Ameliorants at Subsidised Rates.

It is proposed to supply soil ameliorants, at 50 per cent subsidy to growers of paddy, pulses and coconut in the State. The provision is for meeting the subsidy on the cost of soil ameliorants and for continuance of the existing staff. This was a centrally sponsored scheme, subsequently transferred to State Plan Sector.

##### 4. Quality Control of Fertilizers and Pesticides

It is proposed to strengthen the existing Fertilizer Control Laboratories at Pattambi and Trivandrum and the Pesticides Testing Laboratory at Trivandrum. In order to ensure the quality of fertilizers and plant protection chemicals in the market, samples will be drawn from the dealers and subjected to analysis in the above laboratories periodically. The outlay is meant for meeting the expenses on staff, chemicals and equipments and other incidental expenses.

##### 5. Plant Protection

The humid conditions in the State provide congenial environment for the growth of pathogens causing diseases and breeding of insect pests. Coconut,

pepper, cashewnut etc. are the major crops which suffer from chronic infestation of pests and diseases. The need for a strong plant protection cover is therefore imperative to support the crop production in the State. The strategy therefore calls for (i) an efficient surveillance network so that incidence of pests and diseases can be anticipated and fore-casts given for taking up necessary action; (2) an integrated pest control system which will reduce the cost of production, (3) an efficient system of plant protection delivery; so that timely action can be taken to help confine the focus of infection and limit the extent of damage.

##### 1. State's Share for the Control of Brown Hopper in Endemic Areas

Brown plant hopper is an endemic pest in the important paddy growing areas in the State. As the crop loss caused by this pest used to be irreparably severe, farmers need assistance to keep this pest under control. The outlay is to accommodate 50 per cent share to be met by the State Government for the continuance of the Centrally Sponsored Scheme.

##### 2. Plant Protection Service

Timely control of pests and diseases is a crucial factor for the success of high yielding variety programme. It depends upon the availability and accessibility of plant protection equipments and chemicals. Although its availability in the State has increased considerably due to the operation of various schemes in the past this activity has to be continued for some more time on a need-based manner. This built-up, however, requires to be supplemented by the maintenance of a pool of plant protection equipments by the Department for hiring out to cultivators. Besides, the paddy growers in the State need assistance by way of subsidy on plant protection chemicals to sustain their interest in the cultivation of high yielding varieties. It is proposed to extend 50 per cent subsidy on the cost of plant protection chemicals for paddy cultivation with HYV from 1981-82 onwards. The Pest and Disease Surveillance Programme, the Biological Control Programme against Nephantis and the campaigns for the control of rodents and storage pests will be continued under this scheme. The outlay is for meeting the subsidy on plant protection equipments and chemicals, incentives for rodent control and other plant protection campaigns, cost of purchase, repair and maintenance of vehicles and plant protection equipments for the Department, expenses on staff and the spill over commitments on the additional facilities for the existing parasite breeding stations and pest surveillance units.

##### 3. Weed Control

Salvinia, which infests the fields and waterways of the State, has become a serious threat to crop production. The only effective method for control of this weed at present is to remove it physically by organising community action on an area wide basis. This scheme envisages continuance of the weed control campaigns by providing suitable incentives to farmers' organisations, Panchayats and Agricultural Development Centres.

Incentives under this scheme will be extended for organising eradication campaigns against other weeds

through chemical control measures also. The outlay is to accommodate the incentives to be provided for the purpose.

#### 4. *Agricultural Meteorological Service*

This scheme is to strengthen the meteorological wing of the Department to ensure regular data collection and interpretation of the weather elements in support of the pest and disease surveillance programme. Regular forecasts on weather and pest incidences will be issued through press and radio. The outlay is to meet the expenses on staff and spill-over commitments towards establishment of the mini-meteorological centres attached to the Departmental farms.

#### 5. *Operational Research for Integrated Pest Control*

The Operational Research Project for integrated pest control established as a joint venture of the Department of Agriculture and Kerala Agricultural University with assistance from the ICAR has to be continued till the end of 1982-83. The Plan outlay is to meet the expenses on staff, adaptive trials and other items to be met by State Government.

#### 6. *Supply of Metallic Storage Bins to Registered Seed Growers at subsidised Rate*

This is a new scheme for the supply of metallic storage bins at subsidised rate in order to promote scientific storage of the seeds produced by registered growers in the State. The provision is to meet the subsidy portion of the cost of storage bins.

### VI. *Commercial Crops*

#### 1. *Pulses*

##### (a) *Pulses Development Programme*

Both area and production of pulses in the State have declined considerably in recent years. Therefore, the efforts during the Sixth Plan will be to bring an additional area of 50 thousand hectares under pulses cultivation. The summer rice fallows and an inter-cropping system in the garden lands offer scope for expansion of area under this crop. One of the hurdles in this regard is that sufficient quantity of quality seeds is not produced in the State and the growers have to pay high prices to procure seeds. It is therefore planned to organise an effective seed procurement and distribution system. The scheme is to organise pulses cultivation in compact areas of 5 hectares and above by subsidising the cost of seeds and fertilizers. The production of rhizobium culture will also be stepped up to cater to the demand of the new areas. The outlay is to meet the subsidies on cost of seed and fertilizers and for establishing a new laboratory for production of rhizobium.

##### (b) *State's Share for the Intensive Pulses Development Programme*

The provision is for meeting the 50 per cent share of the State Government for continuance of this Centrally Sponsored Scheme for pulses development.

#### 2. *Tuber Crops*

##### *Development of Tuber Crops*

The development aspects of tapioca will be entrusted to the Tapioca Board proposed to be established during the plan period. However, in the case of other tubers like sweet potato, yams etc. which are mostly used as vegetables, availability of quality planting materials is one of the constraints in the expansion of area under these crops. The scheme is to provide assistance for the production and distribution of quality planting materials and also incentives for adoption of scientific cultivation practices on an area-wide basis and for organising marketing facilities.

#### 3. *Sugarcane Development*

It is proposed to increase the production of sugarcane in the State so as to meet the requirements of the three existing sugar factories. The programme includes providing additional irrigation facilities by subsidising the investment on individual and community basis, organising a seed multiplication and distribution programme for supplying improved varieties of planting materials at subsidised rate and motivating the sugarcane growers for the adoption of plant protection measures in time by extending suitable incentives. The outlay is for accommodating the subsidies to be given to the growers and expenses on staff.

#### 4. *Oil Seeds*

##### *Seasonal Oil Seeds*

##### (a) *Groundnut Development*

The cultivation of groundnut is still confined to only one district in the State viz. Palghat. Its cultivation as an inter-crop with tapioca in other areas has been found successful. The strategy for expansion of area under groundnut during the Plan would therefore be the promotion of inter-cropping of groundnut with tapioca. The seeds would be procured from the traditional areas for supply to the new areas. It would be necessary in the initial years to give some incentive to the tapioca growers for meeting a part of the additional expenses involved in the inter-cropping. The provision is for the above purpose.

##### (b) *Sesamum Development*

In order to promote scientific cultivation practices the scheme provides assistance for (1) multiplication and distribution of the improved variety of sesamum seed—*Kayamkulam-I*—through selected registered growers, (2) incentives for adoption of scientific cultivation practices on an area-wide basis and (3) assistance for organising mini-kit trials with new cultures under pre-release stage with the Kerala Agricultural University. The outlay is for continuance of this scheme during the Sixth Plan period.

##### *Perennial Oil Seed Plants*

##### (a) *Coconut Development*

Coconut is the most important traditional cash crop grown in the State accounting for nearly a third of the gross cropped area and agricultural income in the

State. It is cultivated in 6.73 lakh hectares of land in Kerala with an annual estimated production of 3053 million nuts. Unlike other commercial crops grown in the State, coconut is essentially a small holder's crop, with about 90 per cent of the 2.5 million holdings falling below the size of one hectare. The vicissitudes in the economic life of the common man in Kerala is so closely inter-woven with the economy of this crop. Besides, this crop provides employment to agricultural labourers, ranging from 80 to 150 mandays per hectare per year depending upon the level of adoption of technology at the farm level.

In spite of the fact that 67 per cent of the area and 61 per cent of the production of coconut in the country come from Kerala State alone, the productivity of this crop in the State is considerably low. More alarming is the decline in productivity noticed in the State during the recent past. The productivity of this crop at the triennium ending 1954-55 was 6919 nuts per hectare which declined to 4630 nuts per hectare by the triennium ending 1978-79. The fall in productivity over a period of 24 years is 33 per cent.

The major problem facing the coconut cultivation in Kerala is the high incidence of diseases like root-wilt and leaf-rot. No eradication measures have so far been found out against the debilitating disease called root-wilt which has caused considerable damage to the coconut gardens in the State. One peculiarity noticed with this disease is that the progression of the disease on an infected tree is not so quick in the initial stages, or for some years. The infected tree will continue to yield but at a declining rate. These trees in different stages of infection contribute to a steady decline in productivity of the crop.

Yet another reason for the decline in productivity is the presence of quite a large number of unproductive trees of poor genetic stock of the earlier plantings, which have attained a senility stage but have not been replanted with young stock of good genetic potential.

A technological break-through in the management of these gardens on an area-wide basis co-ordinating the various factors of production has not taken place so far due mostly to the unorganised nature of enterprise accentuated by the fragmented nature of holdings.

The major emphasis in the development efforts during the Fifth Five Year Plan was in the establishment of 187 coconut package units covering one eighth of the area under coconut. Comprehensive spraying scheme for the control of coconut leaf diseases, rejuvenation of diseased coconut plantations by under-planting with hybrid seedlings, and subsequent removal of the diseased trees, production and distribution of quality coconut seedlings, promoting irrigation facilities in coconut gardens etc. were the major development programmes implemented by the Government during the Fifth Plan period. Apart from this, under the Kerala Agricultural Development Project assisted by the World Bank a programme for coconut rehabilitation in 30,000 hectares of coconut gardens in four districts and new planting over 5000 hectares in the State is also under implementation. Although these developmental approaches were in the right direction, quantitatively these efforts and investments were not sufficient to bring about tangible results due to insignificant coverage of the area under the crop as well as

lack of co-ordination in harnessing all the crucial factors of production. An increase in the productivity of coconut ranging from 76 per cent under rainfed conditions to 165 per cent under irrigated conditions through the application of fertilizers and scientific management as obtained by CPCRI, Kasargod, indicates the developmental potential of this crop.

The strategy for development of this crop during the Sixth Plan will be (1) to arrest the decline in productivity that has set apace in the recent past, and (2) to increase the productivity further through a comprehensive coconut development programme on an area wide basis. In order to achieve these objectives the strategy during the Sixth Five Year Plan envisages (1) intensification and enhancement of coverage under the spraying for control of leaf diseases, (2) enlisting the participation of local bodies in the operational efforts, and (3) implementation of comprehensive programme for the allround development of the coconut gardens in a phased manner. Besides, the efforts on the production and distribution of quality coconut seedlings will also be intensified. With these objectives the following schemes are sponsored:

(1) *State's Share for Centrally Sponsored Schemes*

The outlay is for meeting the 50 per cent share of the State Government for the continuance of the three Centrally Sponsored Schemes viz. (1) T x D seedling production, (2) rejuvenation of unhealthy coconut plantations and (3) package programme for coconut.

(ii) *Production and Distribution of Quality Coconut Seedlings*

The proposal is to increase the production of quality coconut seedlings from the existing level of 20 lakhs to 30 lakhs seedlings per year so that the increasing demand of the committed programmes of the Department of Agriculture, SADU, ARDC etc., can be met. The outlay is for meeting the cost on hybridisation charges, procurement of seed nuts, nursery costs, land acquisition charges for additional nurseries, improvement of the facilities in the existing nurseries and expenses on staff.

(iii) *Spraying for the Control of Coconut Leaf Diseases*

It is proposed to enhance the coverage under spraying to 10 crores of trees in a year in the disease-affected tracts. The Department would supply the required chemicals and plant protection equipments while the actual spraying operations will be organised by the local body unit after realising a part of the cost from the beneficiaries. The outlay is for meeting the cost of chemicals, equipments, spraying charges, and expenses on staff.

(iv) *Comprehensive Coconut Development Programme*

The Project envisages improvement of the coconut gardens by cutting and removing the diseased and unproductive palms yielding less than 10 nuts per year for which an incentive of Rs. 75 per palm will be paid to the grower. The scheme also provides for the supply of quality coconut seedlings at 50 per cent subsidy for replanting, 50 per cent subsidy for adopting scientific manuring on 10 per cent of the number of palms in the holding, supply of green manure seeds at 33 1/3 per cent

subsidy and 33 1/3 per cent subsidy on cost of construction of wells and pumpsets for irrigation. The scheme would cover the entire disease affected tract in a phased manner. The outlay is to meet the incentives to the farmers.

(b) *Development Programme for Oil Palm*

The plan provision is for the continuance of the Oil Palm Station, Thodupuzha. Expenses on staff, cultivation charges, cost of hydraulic press and maintenance of the station will be met from the outlay.

(v) *Spices Development*

(a) *Spices Nurseries*

The Plan provision is to meet the cultivation charges of the progeny orchards, cost of seed materials, nursery charges, expenses on staff etc. for continuing the on-going scheme for multiplication and distribution of planting materials of the hybrid variety of pepper Panniyur-I, improved local varieties of pepper and seedlings of tree spices with an annual target of 51.50 lakh numbers.

(b) *Pepper Development Programme*

The productivity of pepper has been declining in recent years. Establishment of package units and making available superior planting materials were the two major strategies adopted in the past. The strategy during the Sixth Plan will be to rehabilitate the traditional pepper gardens by providing assistance for replanting and fresh planting of pepper vines and promoting scientific manuring and plant protection by giving suitable incentives. The scheme envisages a physical coverage of 15000 hectares dove-tailed with ARDC schemes of similar nature. The outlay is for meeting the incentives to farmers.

(c) *Development of Ginger Turmeric and Garlic*

It is proposed to promote the scientific cultivation of ginger, turmeric and garlic by arranging the supply of quality planting materials and other inputs at 25 per cent subsidy. The outlay is for the purpose.

7. *Cashew Development*

The internal production of cashewnut is not even sufficient to cover one third of the processing capacity built up in the State. With rapidly depleting sources of import the need for increasing production of cashewnut in the State is crucial for sustaining the cashew industry which employs 1.35 lakh workers.

(a) *State's Share for Cashew Cultivation in Private Sector*

The State Government is providing staff and office support for the implementation of the centrally sponsored scheme for cashew cultivation in private sector. In addition to this, State Government has to bear 50 per cent of the incentive subsidies given to the beneficiaries. The outlay is for accommodating the above commitments for the continuance of the centrally sponsored scheme.

(b) *State's Share for Cashew Demonstration*

Provision is for meeting 50 per cent share of State Government for the continuance of the centrally sponsored scheme for cashew demonstration.

(c) *State's Share for Progeny Gardens for Cashew*

Provision is for meeting 50 per cent share of State Government for the continuance of the centrally sponsored scheme for progeny garden for cashew.

(d) *Adoption of Plant Protection Measures for Cashew*

The scheme for adoption of plant protection measures for cashew in private gardens will be continued with an annual target of covering 10,000 hectares. Under the scheme two rounds of spraying will be organised after realising a nominal charge of 10 paise per tree per spraying. Outlay is for purchase of plant protection chemicals and equipments etc.

(e) *Multi-State Cashew Development Project*

The Multi State Cashew Development Project with World Bank assistance sanctioned for implementation from April 1980 envisages the coverage of 10,000 hectares additionally under cashew in Malappuram and Cannanore Districts in Kerala. Under this project long term loans will be given to cashew growers for fresh planting of cashew, routing the finance through ARDC. The State Government would provide staff support and an incentive subsidy of Rs. 300 per hectare towards this project. The outlay is for meeting the State's commitment on this project.

8. *Cocoa*

(a) *Cocoa Development*

As an inter crop for intensifying land use and supplementing income, cocoa offers considerable potential. Therefore the scheme for bringing additional area under cocoa in private sector will be continued to cover 10,000 hectares during the Sixth Plan. The outlay is to meet the cost of production and distribution of quality seedlings.

(b) *Seed Garden for Cocoa*

Provision is for maintenance of the cocoa seed garden established at Chungathara.

(c) *Share Capital Contribution for Cocoa Processing Unit*

Detailed project report for the establishment of a Cocoa Processing Unit is being drawn up by the State Government. Pending finalisation a token provision is proposed for share capital contribution to the unit.

9. *Tobacco Development*

The scheme aims at expansion of area under tobacco by providing incentives to the landless agricultural labourers who cultivate tobacco by leasing land and also for popularisation of scientific cultivation among them. The outlay is for meeting input subsidies to the growers.

10. *Tapioca Board*

In order to develop the production and marketing aspects of tapioca, it is proposed to set up a Tapioca Board. Pending finalisation of draft project report, token outlay is proposed in the plan.



## 11. Cotton Development

This is a new scheme which envisages popularisation of improved varieties of cotton through the supply of improved seeds and organising scientific cultivation on an area-wide basis by giving incentives by way of input subsidy. The outlay is for giving incentives and expenses on staff.

## VII. Extension and Farmers' Training

### 1. Farmers' Training Centres

The outlay is meant for continuance of the existing Farmers' Training Centres and for converting one of the centres into a training institute for conducting various training courses.

### 2. Training Programme for Agricultural Demonstrators and Junior Agricultural Officers

With the introduction of the Training and Visit (T and V) system of extension the on-going schemes for in-service and refresher training courses for the field staff will be dispensed with, as the new project would take care of such requirements. A new scheme will be introduced for imparting training on farm Management to the Junior Agricultural Officers and Agricultural Demonstrators working in departmental farms. The outlay is for this purpose.

### 3. Training to Senior Officers

The outlay is for meeting the training fee, stipend and other allowances of the departmental officers deputed for special trainings within and outside the country.

### 4. Inservice Training to Mechanics

The provision is for continuance of the inservice training programme for mechanics for operation and maintenance of agricultural machinery.

### 5. Special Training Leading to Post-graduate Diploma

The Kerala Agricultural University is conducting a post-graduate course leading to Diploma in the disciplines of Water Management, Plant Protection and Agricultural Chemistry. Under the State Plan Scheme the department is deputing 12 officers every year for the above course. The outlay is for continuing the scheme during Sixth Plan period by meeting the salary and other training expenses.

## VIII. Agricultural Engineering

### 1. Expansion of Agricultural Engineering Service

The agricultural engineering problems in the State have not received adequate attention in the past. The scheme envisages strengthening of the State and District level Agricultural Engineering Wing of the Department to provide timely engineering support to various agricultural development programmes. The outlay is for meeting the expenses on staff, equipments and machinery.

### 2. Agro-Industries Corporation

The outlay is for meeting the share capital contribution of the State to the Agro-Industries Corporation for its agricultural operation.

## IX. Agricultural Education and Research—Kerala Agricultural University

### (i) Education

In addition to its two faculties of Agriculture and Veterinary and Animal Sciences, the Kerala Agricultural University (KAU) has started a new faculty of Fisheries from 1979-80 onwards in which an under graduate programme has been initiated. Besides, new post graduate programmes have been started in disciplines like Agricultural Economics, Agricultural Engineering and Agricultural Statistics. KAU also proposes to strengthen a few more disciplines to meet the growing instructional requirements. New faculties proposed are (i) Faculty of Basic Sciences and Humanities and (ii) Faculty of Forestry. In addition to degree courses, KAU is organising many training programmes for the technical personnel in the Departments of Agriculture, Animal Husbandry, Dairy Development and Milk Marketing Board etc.

### (ii) Extension Education

In order to ensure the transfer of technology to the rural community in general and the farming community in particular, extension wing of the Kerala Agricultural University proposes to strengthen its communication centre, expand the Public Relations Wing, establish a Central Training Institute, start correspondence courses and establish Krishi Vignana Kendras. The extension wing of the KAU also proposes to undertake a middle level technical training programme to benefit the young generation of fishermen who take to the fishing profession. Areas of training will include deep sea fishing, operation, repair and maintenance of motor boats; maintenance, repair and use of fishing nets, canning, pickling and processing and refrigeration technology.

### (iii) Research

Research in the past has been mostly crop oriented or discipline oriented. The importance of a multi-disciplinary approach and the need for a crop system approach have already been recognised and a start in this direction has been made. Studies on an integrated farming system involving crop-livestock-fisheries and employing the organic recycling principle at the farm level have been felt necessary. In order to give due weightage to regional problems, research efforts have to be focussed on a regional basis also. The Kerala Agricultural University, therefore proposes to undertake intensive research activities in its three campuses and 21 research stations located in different agro-climatic regions of the State. The University has already undertaken several research programmes sponsored by other national and international agencies like ICAR, World Bank, SIDA etc. In order to take up more problem-oriented research KAU proposes to strengthen the infrastructure facilities and staff support.

## X. Storage and Warehousing

Scientific storage and warehousing facilities in the State are mostly provided by the Kerala State Warehousing Corporation. The Corporation's owned capacity of godowns is 58,378 tonnes. During the Sixth Plan period, it proposes to construct additional godown capacity of 58,000 tonnes, to accommodate the increasing demand for scientific storage facilities. The outlay is for meeting the share capital contribution of the Corporation by the State Government.

## XI. Agricultural Marketing

In order to develop a marketing structure that would ensure remunerative prices to the producer by narrowing down the price-spread between the producer and the consumer and reducing non-functional margins of the traders and commission agents, comprehensive and rapid expansion of regulated marketing system having organic links with the primary markets, and major consuming centres will have to be established. To make the system more effective, it should include facilities for grading and monitoring of prices.

### 1. Establishment of Regulated Markets

The Government of Kerala have already taken a policy decision to introduce regulated markets in the State. The outlay is for providing initial support required for market development and for rendering necessary management and supervisory support to the regulated marketing system.

### 2. Establishment of Grading Laboratories

Commodities graded under 'Agmark' in Kerala are coconut oil, gingelly oil, ground spices and honey in four Government and three private laboratories. The plan proposal is for starting seven State Agmark laboratories in addition. Outlay is for meeting the expenses on staff, equipments, chemicals etc., for the new as well as existing laboratories.

### 3. Grading at Producers' Level

At present no scientific grading of agricultural commodities is done at the producers' level. It is necessary to inculcate the spirit of maintaining quality in production of agricultural produce as well as ensuring the benefit thereto to the concerned producers. The scheme is to give assistance to cooperative marketing societies, regulated markets, agricultural development centres, and such other organisations for setting up grading facilities.

### 4. Market Extension

The cultivators will have to be educated on different aspects of marketing, namely harvesting, processing, packing, grading, market intelligence etc. The scheme envisages to accomplish these through publications, film shows, and radio. In addition to this, market bulletins on weather conditions, crop prospects, price trend, market preferences etc., will also be issued. The outlay is for this purpose.

### 5. Re-organisation of Marketing Wing

The plan outlay is for meeting the staff and office support of the Agricultural Marketing Wing, which has to be re-organised and strengthened for intensifying the marketing services during the plan period.

### b. Market Investigation and Survey

The scheme envisages market surveys, commodity surveys, price spread studies on different commodities, and adhoc surveys on other aspects of marketing. The outlay is for meeting the expenses on staff and other charges for collection and analysis of data and for publishing the survey reports.

### 7. Training of Marketing Personnel

The outlay is for meeting the training expenses of officers deputed for Diploma course in Agricultural Marketing at Nagpur, Market Secretary's Course at Hyderabad, and Grader's Training at Nagpur.

## XII. Others

### 1. Changing Cropping Pattern

The Scheme envisages raising of additional crops by suitably adjusting the existing cropping pattern through location-specific development plans and land use programmes. The additional investment on the part of the farmers for adopting the new cropping pattern will be subsidised to the tune of Rs. 250 per hectare. The outlay is for meeting the subsidy.

### 2. Projects for Soil and Water Management

The existing Pilot Project for Soil and Water Management at Chalakudy is due for completion during 1980-81. The proposal is to take up a new pilot project for soil and water management in the ayacut area of Mangalam dam in Palghat district. The outlay is for meeting the spillover commitments on the existing project at Chalakudy and for establishing the new project.

### 3. Agricultural Development Programmes for Scheduled Castes/Scheduled Tribes

The agricultural development programmes of the Scheduled Castes and Scheduled Tribes require a different approach than what is generally adopted for other strata of people. The scheme envisages location-specific development programme with emphasis for land development and intensive cropping for which suitable subsidies on investment will be given. The outlay is for meeting the cost of planting materials and other inputs to be distributed free of cost and the subsidy on infrastructure development. The agricultural development support to be provided for the tribal area sub-plan will also be met from the outlay.

### 4. Agricultural Development Programme for Weaker Sections.

The weaker sections of the society deserve supporting agricultural development programmes for increasing their income and employment. The scheme envisages suitable location specific programmes which will be subsidised on a need-based manner. Planting materials and other inputs will be made available on concessional rates. The outlay is for the purpose.

### 5. Agricultural Development Centres

In order to ensure farmers' participation for the various development programmes and to organise service facilities on a self-help basis, it is proposed to establish agricultural development centres in each local body unit. With the introduction of the T.V system, the field staff would devote their entire attention on extension activities while the supply and services will be taken over to a large extent by the Agricultural Development Centres. The investment required for establishment of the centres is expected to be met from the Employment Generating Scheme; and the assistance for organising agricultural services and for taking up special activities will be met from this outlay on a need-based manner.

## 6. Contingency Plan to Meet Natural Calamities

The scheme envisages the maintenance of a buffer stock of 200 tonnes of paddy seeds for distribution as an immediate measure for re-sowing to areas where crop damages have occurred due to natural calamities. The outlay is for meeting the cost of seeds, storage and other incidental charges.

## 7. Horticulture

### (a) Development of Banana, Pineapple and other Horticultural Crops.

The scheme envisages increasing the productivity of banana, pineapple and other fruit crops through popularisation of improved varieties and scientific cultivation by conducting demonstration in major production centres. Procurement and distribution of improved varieties of seed materials will also be undertaken. The outlay is for meeting the assistance to farmers.

### (b) Agri-Horticultural Societies

Voluntary organisations like the Agri-Horticultural Societies play a significant role in encouraging the cultivation of fruit trees, vegetables and ornamental plants especially in urban areas. At present Agri-Horti societies are functioning only in a few districts. The Plan scheme is to render assistance to the existing societies for enlarging their activities and services and also to establish new societies in districts where no Agri-Horti societies are functioning at present. The outlay is for this purpose.

### (c) Vegetable Production Programmes

Vegetable production assumes importance not only from its nutritional point of view, but also from its potential for augmenting the income of small and marginal farmers and agricultural labourers. Bulk of the demand for vegetables in the urban areas is being met by imports from neighbouring states. It is therefore proposed to concentrate efforts for maximising the production of vegetables in and around city corporations and municipal towns and intensifying the supply and services as well as extending incentive subsidies on inputs.

### (d) Development of Fruit Crops in Selected Areas

The agro-climatic conditions of the State offer wide scope for raising a variety of fruit crops ranging from tropical to semi-temperate types. The scheme envisages concerted efforts to exploit this potential by organising the cultivation of fruit crops on an area wide basis by giving suitable incentives and promoting processing and marketing facilities.

## 8. Farm Information and Communication

Farm Information Service is an essential support for the successful implementation and realisation of the objectives of the development programmes in the farm sector. It is attended to by the Farm Information Bureau (FIB) in the State. Apart from being an instrument for bridging the gap between the lab-to-land, it has a significant role in educating the people about

the programmes and projects undertaken by the Government and other agencies on agricultural development in the State.

### (a) Organisation of Farm News Service

The farm news programme of the AIR produced by the Farm Information Bureau is a powerful channel to reach vast numbers of the farming community. Considering the effectiveness of the programme this service has to be expanded and location specific materials have to be prepared for stations with independent programmes of broadcast. The outlay is for meeting the expenditure on supporting facilities for this programme.

### (b) Establishment of Rural Exhibition Units

Festivals and fairs in small towns and rural centres lasting 3 to 4 days offer scope for communicating new technology and developments to a large number of people through exhibitions. The outlay is for the continuance of the regional exhibition unit already established at Calicut and for starting a new one at Ernakulam.

### (c) Production of Instructional Films

Film is the most effective visual medium for making a better impact even on illiterate farmers. However, films with themes relevant to Kerala context are very few. The outlay is for producing documentary films within the State.

### (d) Construction of Photographic Studio and Block Making Unit

The publications undertaken by the FIB, to be more meaningful and effective, require photographic coverage of the developmental activities. A photographic studio and block making unit are essential infrastructure for this. The outlay is for meeting expenditure on staff, building and equipments etc.

### (e) Supply of Instructional Slides and Visual Aids to T & V Units, and ICD Projects

The scheme envisages distribution of slides and slide projectors to field level officers of the Department of Agriculture, Animal Husbandry and Dairy Development as a support for extension activities. The outlay is for purchase of slide projectors and other slide production materials.

### (f) Farm Book Corners in Rural Libraries

The scheme envisages supply of books on agriculture and related subjects at one third subsidy to the existing libraries and to provide 8mm. projectors, agricultural implements etc. at two third subsidy to those centres where agricultural seminars, poultry vaccination, veterinary gynecological camp, mobile soil testing programmes etc. are arranged. The outlay is for purchase of books, audio-visual aids etc.

### (g) Organising Kisan Melas:

The provision is for organising Kisan melas which combines exhibitions, subject matter seminars, supplies and services together at district and State level.

(h) *Farm News through Daily Newspapers*

With the active participation of FIB several newspapers in the State have started special weekly farm feature columns. The scheme is to start a Cell in the FIB for processing the materials received from the various agencies for whom the FIB provides information and communication support and for projecting the same through farm feature service. The outlay is for meeting the expenditure on staff and materials.

(i) *Farm Information Bureau*

The outlay is for covering other activities of the FIB like publishing of 'Kerala Karshakan,' the fortnightly farm journal, production of technical bulletins and mass communication materials, wall newspapers, organisation of a central film library, participation of FIB in large scale exhibitions, deputation of officers for job-oriented trainings, conducting periodical workshops and strengthening of administration etc.

9. *Establishing Departmental Sale Depots in City Corporations and Municipal Areas*

This scheme envisages the establishment of departmental sale depots in all the City Corporations and Municipal areas for the supply of seeds, seedlings, and planting materials produced in departmental farms and fertilizers, plant protection chemicals and agricultural implements etc. required by the people. Besides, these sale depots would serve as sale points for the agricultural products from the departmental farms. The outlay is for meeting expenses on staff, rent for depots and other incidentals.

10. *Adoption of Cropping Pattern in Areas Covered Under Soil Conservation*

The follow-up action now being taken for the proper utilisation of the areas covered under soil conservation programmes is quite inadequate. It is therefore proposed to introduce a new scheme for taking up follow-up activities in soil conserved areas for promoting the best suited cropping pattern by giving suitable incentives. The outlay is for subsidising the cost of inputs and giving incentives to farmers.

11. *Crop Insurance*

It is proposed to introduce crop insurance on a pilot basis in selected areas. The provision is meant for expenses on staff and the State share in the venture.

12. *Coconut Development Corporation*

In order to bring about stable conditions in the coconut market the Coconut Development Corporation was set up in the State during the Fifth Plan period. By entering into processing activity the Corporation aims at acquiring a commanding position in the market. State support by way of share capital participation to stabilise the activities of the Corporation is envisaged. The outlay is for the purpose.

13. *Kerala Land Development Corporation*

The Kerala Land Development Corporation was established to take up projects on land development by channelising institutional finance. The two major

projects taken up by the Corporation are (i) the Kutnad Development Project and (2) the Trichur Kole Land Development Project. The outlay is for giving share capital contribution by State Government.

14. *Special Agricultural Development Project*

The Kerala Agricultural Development Project, a World Bank assisted programme, for the development of tree crops is under implementation in the State from 1977-78. The total estimated cost of the project with a span of seven years is Rs. 63 crores of which the IDA credit is Rs. 27 crores. The major programmes of the project are:

- (i) Coconut rehabilitation in 30,000 hectares in Cannanore, Kozhikode, Malappuram and Trivandrum Districts;
- (ii) Coconut new planting in 5000 hectares in Cannanore and Malappuram Districts;
- (iii) Pepper rehabilitation in 10,000 hectares in Cannanore, Kottayam and Idukki Districts;
- (iv) Setting up a seed garden complex in about 500 hectares in Munderi near Nilambur in Malappuram District;
- (v) Rehabilitation of the State-owned cashew plantation of about 2300 hectares and new planting in 1470 hectares in Cannanore District;
- (vi) Establishment of 10 crumb rubber factories, each of 10 tonne/day capacity; and
- (vii) Strengthening of research by Central Plantation Crops Research Institute, Kasargode, (CPCRI) and Kerala Agricultural University (KAU) on tree crops and providing training and technical assistance facilities.

The programme for coconut rehabilitation, coconut new planting, pepper development and the seed garden complex are being implemented by the Special Agricultural Development Unit (SADU), a Department set up by the State Government specially for this purpose. The Cashew Development Sub-project is implemented by the Plantation Corporation of Kerala Limited (PCK), the crumb rubber processing sub-project by the Kerala State Co-operative Rubber Marketing Federation and the Co-operative rubber marketing societies and the Agricultural Research Sub-project by the Central Plantation Crops Research Institute and Kerala Agricultural University. The State Government is to provide funds, facilities and services for implementation of programmes by SADU and for research programmes by KAU. The outlay is to meet these expenses.

15. *Share Capital Contribution to Oil Palm India Ltd.*

Oil Palm India Limited was registered on 21-11-1977 for taking over the oil palm plantations cultivated and managed by the Plantation Corporation of Kerala Limited and to expand cultivation of this crop. The project envisages raising oil palm cultivation over an area of 2000 hectares in Anchal in Quilon District. The scheme was financed by Government of India to the extent of Rs. 200 lakhs by investing Rs. 98 lakhs directly as share capital and Rs. 102 lakhs as loan to Plantation Corporation of Kerala Limited through the State Government for investment in share capital (51 per cent). The outlay proposed is for share capital contribution by State Government during the Sixth Plan Period.

TABLE 5.1

## Agricultural Programmes—Scheme-wise Outlays

(Rs. lakhs)

Sl. No.	Name of Scheme/Project	1979-80	1980-81		1980-85		1981-82	
		Actuals	Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(i)	<i>Direction and Administration</i>							
	Reorganisation and Strengthening of Agricultural Administration and introduction of Training and Visit system of Extension	4.58	125.00	50.00	1100.00	247.00	245.98	43.71
(ii)	<i>Multiplication and Distribution of Quality Seeds</i>							
	1. Production and Distribution of Quality Seeds	0.15	0.70	2.00	22.00	..	5.00	..
	2. Inspection, Certification and Establishment of a Seed Testing Laboratory	0.32	1.00	2.50	3.90	2.50	0.35	..
	3. Development of Existing Seed Farms	17.41	10.20	10.20	41.00	23.20	15.00	5.00
	4. Seed Multiplication in Kayal Lands (Government Farm, Chulatheruvu)	14.69	15.00	15.00	19.00	..	1.00	..
	Total: Multiplication and Distribution of Seeds	32.57	26.90	29.70	85.90	25.70	21.35	5.00
(iii)	<i>Agricultural Farms</i>							
	District Agricultural Farms	16.86	10.00	10.00	100.00	25.00	20.00	5.00
(iv)	<i>Manures and Fertilizers</i>							
	1. Procurement and Distribution of Green Manure Seeds	1.86	3.00	1.00	15.00	..	3.00	..
	2. Soil Testing Service	8.62	10.00	12.00	120.00	18.00	20.00	8.00
	3. Supply of Soil Ameliorants at Subsidised Rates	8.19	10.00	6.00	50.00	..	10.00	..
	4. Quality Control of Fertilizers and Pesticides	8.74	6.00	6.00	35.50	..	6.00	..
	Total: Manures and Fertilizers	27.41	34.10†	25.10	220.60	18.00	39.00	8.00
(v)	<i>Plant Protection</i>							
	**1. State Share for Control of Brown Hopper in Endemic Areas	3.77	5.00	5.25	26.25	..	5.25	..
	2. Plant Protection Service	22.60	15.00	16.00	100.00	..	20.00	..
	3. Weed Control	1.55	2.00	1.00	25.00	..	5.00	..
	4. Agricultural Meteorological Service	0.89	0.50	2.14	5.60	..	1.00	..
	5. Operational Research for Integrated Pest Control	1.95	0.10	2.00	7.00	..	2.50	..
	*6. Supply of Metallic Storage Bins to Registered Seed Growers at Subsidised Rate	..	..	..	2.00	..	1.00	..
	Total: Plant Protection	30.76	22.60	26.39	165.85	..	34.75	..
(vi)	<i>Commercial Crops</i>							
	1. Pulses							
	(a) Pulses Development Programme	5.26	5.00	7.15	45.00	..	9.00	..
	** (b) State Share for the Intensive Pulses Development Programme	1.64	3.50	3.08	22.49	..	5.64	..
	2. Tuber Crops							
	(a) Development of Tuber Crops	4.55	4.50	..	4.00	..	1.00	..
	3. Sugarcane Development	1.06	1.50	1.50	43.30	..	10.00	..
	4. Oil Seeds							
	(a) Groundnut Development Programme	3.87	10.00	10.00	50.00	..	10.00	..
	(b) Sesamum Development Programme	..	1.00	0.66	9.31	..	2.20	..

†1980-81 outlay includes allocation for (1) Establishment of Mechanical Compost Plant (Rs. 5.00 lakhs) and (2) Organic Manure Demonstration (0.10 lakh)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Perennial Oil Seed Plants</i>								
(a) Coconut Development								
** (i) State Share for ongoing Centrally Sponsored Schemes (T x D Seedling Production, Rejuvenation of Unhealthy coconut plantations, and Package Programme for Coconut)		30.89	28.50	32.00	161.25	—	32.25	..
£ (ii) Production and Distribution of Quality Coconut Seedlings		87.20	90.00	86.00	486.00	..	100.00	..
£ (iii) Spraying for Control of Coconut Leaf Diseases		19.71	167.50	300.00	1900.00	..	400.00	..
£ (iv) Comprehensive Coconut Development Programme		..	15.00	150.00	1190.00	..	230.00	..
(b) Development Programme for Oil Palm		1.81	1.00	1.00	5.00	—	1.00	..
5. Spices Development								
(a) Spices Nurseries		10.61	7.50	10.00	50.00	..	10.00	..
(b) Pepper Development Programme		32.61	25.00	5.00	275.00	..	58.00	..
(c) Development of Ginger, Turmeric and Garlic		..	0.50	..	5.00	..	1.00	..
6. Cashew Development								
** (a) State Share for Cashew Cultivation in Private Sector		16.74	15.90	7.50	47.50	..	10.00	..
** (b) State Share for Cashew Demonstration		1.15	1.50	3.00	9.00	..	3.00	..
** (c) State Share for Progeny Gardens for Cashew		1.35	0.75	1.00	6.25	..	1.50	..
(d) Adoption of Plant Protection Measures for Cashew		9.38	10.00	10.00	50.00	..	10.00	..
(e) Multi State Cashew Development Project		..	25.00	19.71	165.71	..	30.61	..
7. Cocoa Development								
(a) Cocoa Development		9.45	7.10	3.00	20.00	..	3.00	..
(b) Seed Garden for Cocoa		0.88	1.00	1.00	5.00	..	1.00	..
(c) Share Capital Contribution to Cocoa Processing Unit		..	10.00	..	15.00	15.00	..	..
8. Tobacco Development		2.21	1.00	1.00	10.20	..	1.20	..
9. Tapioca Board		..	..	..	10.00	..	..	..
10. Cotton Development		..	..	..	11.00	..	2.00	..
Total: Commercial Crops		240.37	442.75*	662.60*	4606.01*	15.00	933.40	..
(vii) <i>Extension and Farmers' Training</i>								
1. Farmers' Training Centres		8.38	7.00	7.00	12.00	3.00	5.00	3.00
2. Training Programme for Agricultural Demonstrators and Junior Agricultural Officers		1.49	2.50	..	2.50	..	0.50	..
3. Training to Senior Officers		0.38	0.50	0.50	2.50	..	0.50	..
4. Inservice Training to Mechanics		0.50	0.50	0.50	2.50	..	0.50	..
5. Special Training Leading to Post Graduate Diploma		..	0.50	0.50	2.50	..	0.50	..
@6. Completed Schemes		17.75	8.50	5.00	5.00	..	..	..
Total: Extension and Farmers' Training		28.50	19.50	13.50	27.00	3.00	7.00	3.00
(viii) <i>Agricultural Engineering</i>								
1. Expansion of Agricultural Engineering Service		0.89	5.00	5.00	55.00	25.00	10.00	5.00
2. Agro-Industries Corporation—Share Capital Contribution		10.00	10.00	10.00	45.00	45.00	10.00	10.00
Total: Agricultural Engineering		10.89	15.00	15.00	100.00	70.00	20.00	15.00
(ix) <i>Agricultural Education and Research—Kerala Agricultural University</i>								
1. Development Grant		180.04	110.00	291.39	1190.00	290.00	155.00	65.00
2. State share for ICAR Co-ordinated Projects		7.00	..	8.00	60.00	10.00	10.00	10.00
3. Acquisition of Land		..	..	..	150.00	150.00	15.00	15.00
Total: Agricultural Education and Research		187.04	110.00	299.39	1400.00	450.00	180.00	90.00

\*The outlay includes an amount of Rs. 10 lakhs provided for the scheme "Coconut Research Grant" to Kerala Agricultural University.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(x) Storage and Warehousing		20.00	12.00	5.00	100.50	100.50	17.00	17.00
(xi) Agricultural Marketing								
1. Establishment of Regulated Markets		..	2.00	..	80.00	..	2.50	..
2. Establishment of Grading Laboratories in Seven Districts		1.33	2.00	2.60	13.74	..	2.89	..
3. Grading at Producers Level		..	0.50	..	1.00	..	0.10	..
4. Market Extension		..	0.10	0.10	5.07	..	1.58	..
5. Reorganisation of Marketing Wing		0.93	4.00	4.79	21.83	..	4.51	..
@6. Processing and Marketing Service for Agricultural Produce		..	1.40	..	..	..	..	..
*7. Market Investigation and Survey		..	..	..	2.66	..	0.70	..
*8. Training of Marketing Personnel		..	..	..	3.00	..	0.75	..
Total: Agricultural Marketing		2.26	10.00	7.49	127.30	..	13.03	..
(xii) Others								
1. Changing Cropping Pattern		6.41	5.00	5.00	25.00	..	5.00	..
2. Projects for Soil and Water Management		3.99	3.00	2.00	16.95	..	4.62	..
3. Agricultural Development Programme for Scheduled Castes/Scheduled Tribes		40.04	50.00	81.00	500.00	..	100.00	..
4. Agricultural Development Programme for Weaker Sections		14.56	10.90	14.50	100.00	..	20.00	..
5. Agricultural Development Centres		..	2.00	..	50.00	..	15.00	..
6. Contingency Plan to meet Natural Calamities		..	2.00	5.21	10.00	..	5.00	..
@Completed Schemes		10.17	45.48	..	..	..	..	..
7. Horticulture								
(a) Development of Banana, Pineapple and other Horticultural Crops		4.00	3.00	1.50	6.00	..	1.50	..
(b) Agri-Horti Societies		0.02	0.50	0.50	2.50	..	0.50	..
(c) Vegetable Production Programme		..	10.00	11.20	55.66	..	10.74	..
(d) Development of Fruit Crops in Selected Areas		..	..	..	25.00	..	5.00	..
@(e) Completed Schemes		2.99	5.00	5.00	5.00	..	..	..
Total: Horticulture		7.01	18.50	18.20	94.16	..	17.74	..
8. Farm Information and Communication								
(a) Organisation of Farm News Service		4.89	4.00	4.75	15.00	..	4.00	..
(b) Establishment of Rural Exhibition Units		2.75	3.00	3.00	12.00	1.00	2.00	1.00
(c) Production of Instructional Film		1.03	1.00	1.70	6.00	..	1.00	..
(d) Construction of Photographic Studio and Block Making Unit		0.07	2.00	2.00	6.00	5.00	1.00	1.00
(e) Supply of Instructional Slides and Visual Aids to T and V Units		..	0.50	0.75	2.00	2.00	0.50	0.50
(f) Farm Book Corners in Rural Libraries		..	0.50	0.60	4.00	..	0.50	..
(g) Organising Kisan Melas		..	0.50	0.50	3.00	..	0.50	..
(h) Farm News Service through Daily Newspapers		..	0.50	0.50	3.00	..	0.50	..
(i) Farm Information Bureau		4.64	4.50	4.40	29.00	1.00	5.00	..
Total: Farm Information and Communication		13.38	16.50	18.20	80.00	9.00	15.00	2.50
9. Establishing Departmental Sale Depots in City Corporations and Municipal Areas		..	..	..	20.00	..	5.00	..
10. Adoption of Cropping Pattern in Areas Covered under Soil Conservation		..	..	..	10.00	..	2.00	..
† 11. Crop Insurance		..	50.00+	..	50.00	..	30.00	..
12. Coconut Development Corporation—Share Capital Contribution		50.00	25.00	20.00	147.00	135.00	47.00	45.00
13. Kerala Land Development Corporation—Share Capital Contribution		33.26	128.00	120.00	600.00	600.00	190.00	190.00
14. Special Agricultural Development Projects								
(a) Project Co-ordination		5.41	5.50	5.50	30.08	..	6.00	..
(b) Project Evaluation Unit		0.92	0.92	0.92	5.10	..	1.00	..
(c) Extension Services		49.51	76.07	76.07	731.88	..	106.00	..
(d) Seed Gardens		21.13	47.61	47.61	188.65	92.00	49.61	30.00
(e) Research Grant to Kerala Agricultural University		11.32	13.57	13.57	44.57	..	13.00	..
Total: Special Agricultural Development Project		88.29	143.67	143.67	1000.28	92.00	175.61	30.00
15. Oil Palm India Limited—Share Capital Contribution		..	15.00	15.00	75.00	75.00	15.00	15.00
Total: Others		267.11	515.05	442.78	2778.39	911.00	646.97	282.50
Grand Total—Agriculture		868.35	1342.90	1586.95	10811.55	1865.20	2178.48	469.21

\*New Schemes

\*\*Centrally Sponsored Schemes

†Supplementary Annual Plan Provisions.

@Schemes which are not pursued further

£These programmes will be partially financed by the Oil Seeds Development Programmes and through funds from Coconut Development Board. State Plan outlay to be finalised after discussion with the Planning Commission.

## Land Reforms

A brief description of the major schemes under land reforms is given below:

### 1. Implementation of Land Reforms Act.

The outlay proposed is to meet the expenditure on staff appointed for the implementation of the various provisions of the Kerala Land Reforms Act.

### 2. Land Board and Land Tribunals under the KLR Act—Updating of Revenue Records

The outlay envisaged is for meeting the administrative expenses of a portion of staff of Land Board and Land Tribunals and staff attached to the Taluk Land Boards.

### 3. Payment of Compensation for the Lands in Excess of Ceilings under the KLR Act—1963.

The Plan provision is for payment of interest on the total amount of compensation to landlords and intermediaries who have vested their rights in Government under section 72 of the KLR Act 1963.

### 4. Payment from the Agriculturists' Rehabilitation Fund.

The Government intend to give loans and grants for organising small scale or cottage industries to help the persons affected by the KLR Act. The provision is for payment of solatium to small holders under section 109 A of the KLR Act.

### 5. Contribution by the Government to the Kudikidappukars, Benefit Fund.

The outlay envisaged under this scheme is for meeting the following items of expenditure: (i) payment of acquisition charges (12.5 per cent) payable by Government under sub-section 3 of section 72 of the KLR Act.

(ii) one half of the purchase price payable by the Kudikidappukar, as provided in sub section 8 of section 80 A.

(iii) grant portion earmarked for housing scheme to Kudikidappukar. In this case the only existing scheme is the Kudikidappukar's housing scheme for the construction of houses at Quilon, Ambalapuzha and Shertallai taluks taken up in 1978-79. It is also proposed to extend this scheme to Trivandrum, Kottayam, Ernakulam, Trichur etc. Fifty percent of the outlay earmarked for this scheme in the Plan will go to benefit the scheduled castes and tribes among the Kudikidappukar.

### 6. Payment of Compensation for Vesting of Interests of Land Lords in Tenants, under the KLR Act 1963.

The amount provided in the Plan under this scheme is for payment of compensation to landlords and intermediaries whose rights have been vested in Government under Section 72 of the KLR Act 1963. The estimated number of allowed cases under section 72 is nearly 25 lakhs.

### 7. Assistance to Assignees of Surplus Land

The outlay envisaged in the Plan is for meeting the matching share of central assistance anticipated, for payment of financial assistance for development and for cultivation of land declared as surplus. Part of the plan outlay will benefit the scheduled caste and scheduled tribe people who are assigned surplus lands.

### 8. Re-survey of State and Preparation of Records of Rights.

Consequent on the implementation of land reform measures in the State, a large number of cultivating tenants got ownership of tenanted lands. But these tenants have no documentary evidence of their possessions. Hence it is important that the Record of Rights is prepared. This is not only essential to establish their legal ownership on the land but also for drawing credit from institutional agencies for developing the land assigned to the tenants. The preparation of Record of Rights and Resurvey of State are therefore of great importance to land reform beneficiaries. The Plan provision made is for meeting the expenditure on the continuing scheme, Resurvey of State and preparation of Records of Rights during the Sixth Plan period.

TABLE 5.2  
Land Reforms - Scheme-wise Outlay

Sl.No.	Name of the Scheme/Project	(Rs. lakhs)						
		1979-80	1980-81		1980-85		1981-82	
		Actuals	Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Implementation of Land Reforms Act.	15.00	13.00	13.00	65.00	..	13.00	..
2	Land Board and Land Tribunals under the K. L. R. Act—Updating of Revenue Records	92.00	96.00	8.00	40.00	..	8.00	..
3	Payment of Compensation for the Lands in Excess of Ceilings under the K. L.R. Act, 1963	6.00	6.00	6.00	25.00	..	5.00	..
4	Payment from the Agriculturists' Rehabilitation Fund	5.00	5.00	10.00	100.00	..	20.00	..
5	Contribution by the Government to the Kudikidappukars' Benefit Fund.	60.00	40.00	40.00	300.00	..	60.00	..
	Special Component Plan for S.Cs and S.Ts.	..	10.90	10.00	300.000	..	60.00	..
6	Payment of Compensation for Vesting of Interests of Land Lords under the K. L. R. Act, 1963	200.00	127.00	127.00	700.00	..	150.00	..
7	Assistance to Assignees of Surplus Lands	0.75	1.75	8.75	40.00	..	8.00	..
	Special Component Plan for Scheduled Castes and Scheduled Tribes.	..	1.25	1.25	10.00	..	2.00	..
8	Resurvey of State and Preparation of Records of Rights	280.73	300.00	365.00	2215.00	8.00	425.00	8.00
	Total—Land Reforms	659.48	600.00	589.00	3795.00	8.00	751.00	8.00



## Minor Irrigation

In the development of irrigation facilities in the State, the role of minor irrigation schemes is quite significant because they are quick yielding, low capital intensive and have high employment potential for unskilled and semi-skilled labour. The undulating topography in Kerala breaks the continuity of arable lands, and the small and medium sizes of holdings demand minor irrigation facilities. The estimated potential for Minor irrigation in the State is 10 lakh hectares (net) or 11 lakh hectares (gross). Till March 1980, an investment of Rs. 39 crores has been made to bring nearly 1.2 lakh hectares (net) or 1.42 lakh hectares (gross) under minor irrigation.

During the Sixth Plan period it is proposed to invest Rs. 40 crores under various schemes to develop a minor irrigation facility of over 45,200 hectares (net) or 54,500 hectares (gross) additionally under surface irrigation. The surveys and investigations of the Ground Water Department also open up the possibilities of raising irrigation facilities over 1.27 lakh hectares (gross). It is also proposed to commercialise irrigation facilities for cash crops by attracting investments from financial agencies. The major schemes under minor irrigation are detailed below.

### 1. Investigation and Development of Ground Water

The on-going schemes of ground water survey and development, optimum utilisation of ground water for cash crops, water balance studies in river basins, drought prone area development, Onattukara development, coastal monitoring, geophysical exploration, establishment of central workshop and photogeological unit, etc., are fully provided for. It is also proposed to start schemes on ground water management in the foothill zones of Kerala, ground water consultancy and extension service, prevention of water logging in Kole lands of Trichur district, inducing recharge in the areas of Marayur in Idukki district and conduct studies on infiltration, ground water pollution, etc.

### 2. Lift Irrigation Schemes

Many schemes on Minor irrigation are lift irrigation schemes which are economically viable. During the plan period it is proposed to irrigate 14,000 hectares (gross) through lift irrigation and adequate outlay has been provided for this item.

### 3. Minor Irrigation (Class I)

The Plan outlay is mainly to complete the on-going schemes and create an additional irrigation potential of 12,000 hectares (gross).

### 4. Minor Irrigation (Class II)

It is proposed to complete the on-going Minor Irrigation Class II works taken up by P. W. D., and also to give additional emphasis for M. I. Class II works with people's participation. These schemes would add 6,200 hectares (net and gross) to the irrigated area.

### 5. Intensive Paddy Development (Yelah Development)

The outlay is to provide irrigation facilities to 5800 hectares of land under intensive paddy development to stabilise paddy crop and increase productivity.

### 6. Repairs to Damages caused to M. I. Structures

Since a large number of Minor Irrigation schemes require repairs to fully utilise their irrigation potential, it is proposed to rectify the damages and restore 14,600 hectares of land to irrigation facilities.

### 7. Minor Irrigation—Special Component Plan

It is intended to provide irrigation facilities to areas predominantly inhabited by Scheduled Castes and Tribes, under the Plan. This programme includes lift irrigation, M. I. Class I and M. I. Class II works. It is proposed to develop irrigation facilities in about 2000 hectares through this investment.

TABLE 5.3

Plan Outlay and Targets for Minor Irrigation

Sl.No.	Type of Scheme	Financial outlay (Rs. in crores)	Physical target in Ha.	
			Net	Gross
1	Lift Irrigation	8.60	8950	13925
2	M. I. Class I	7.50	7680	12020
3	M. I. Class II (P.W.D.)	1.00	1160	1160
4	M. I. Class II (People's Participation)	4.35	5030	5030
5	M. I. (S.C.P.)	3.00	2000	2000
6	I. P. D. Yelah	5.00	5790	5790
7	Repairs to Damages Caused to M.I. Works	2.50	14600	14600
8	Others	8.05	..	..
Total		40.00	45210	54525

TABLE 5.4

Minor Irrigation—Scheme-wise Outlay

		(Rs. in lakhs)						
Si. No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved outlay	Anticipa- ted expen- diture	Proposed Outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(i)	Investigation and Development of Ground Water Resources	35.000	59.50† *9.50	59.50† *9.50	500.00	210.00	95.00	53.00
(ii)	Construction and Deepening of Wells and Tanks	0.271	1.00	1.00	5.00	5.00	1.00	1.00
(iii)	Lift Irrigation Schemes	112.600	135.00	135.00	860.00	860.00	175.00	175.00
(iv)	Other M. I. Works.							
(a)	M. I. Class I	126.230	135.00	135.00	750.00	750.00	175.00	175.00
(b)	M. I. Class II (P.W.D.)	6.999	25.00	25.00	100.00	100.00	25.00	25.00
(c)	M. I. Class II (People's Participation)	62.651	75.00	75.00	435.00	435.00	80.00	80.00
(d)	I. P. D. (Yelah Development)	82.336	85.00	85.00	500.00	500.00	110.00	110.00
(e)	M. I. (Special Component Plan)	..	30.00	30.00	300.00	300.00	50.00	50.00
(f)	Irrigation Facilities to Drought Prone Areas	1.464	..	..	..	..	..	..
(g)	Repairs to Damages Casued to M.I. Structures	11.889	23.50	23.50	250.00	250.00	24.00	24.00
(h)	Special Repairs to Rectify Flood/Cyclone Damages	31.398	..	..	..	..	..	..
(v)	Others:							
(a)	Investigation (M.I. Scheme)	0.749	10.00	10.00	100.00	..	10.00	..
(b)	Subsidy to Small and Marginal Farmers for Purchase of Pumpsets in Non-S. F. D. A. and I. R. D. P. Areas	..	60.00	60.00	200.00	..	35.00	..
(c)	Free Supply of Pumpsets to Panchayats	1.750	10.00	10.00				
(d)	Punja De-watering	..	15.00	15.00				
(e)	M.I./Tube Well Corporation	..	1.00	1.00				
Total - Minor Irrigation		473.337	665.00	665.00	4000.00	3410.00	780.00	693.00

\*Central share of Centrally Sponsored Scheme.

## Soil and Water Conservation

Out of the total geographical area of 38.86 lakh hectares in the State, nearly 15 lakh hectares are estimated to be highly vulnerable to soil erosion hazards. The high rainfall together with the undulating topography in the State also contribute to the aggravation of this problem. However with the efforts so far made only about 70,000 hectares have been brought under soil conservation measures. Further the concept of soil and water conservation has to become more broad based to meet the requirements of efficient and productive use of land. The emphasis is towards an integrated soil and water conservation and crop management planning on watershed basis. A short description of the schemes under soil and water conservation is given below:

### I. Direction and Administration

The Soil Conservation Department consists of two separate branches viz., Soil Conservation and Soil Survey. These two branches require strengthening in areas of Direction, Planning and Monitoring. It is proposed to create a Planning and Monitoring Cell in the Head quarters. The outlay is to meet expenditure towards this.

## II. Soil Survey and Testing

### A. On going schemes

#### (i) Soil Survey in Command Area and Problem Areas

Detailed soil survey of command areas of irrigation projects on a priority basis is a pre-requisite for formulating suitable cropping patterns and evolving differential management practices for the altered moisture regime so that maximum benefit is derived from the irrigation potential created. Command areas of a number of projects still remain to be covered under detailed soil surveys. Considerable stretches of lands affected by ingress of salt water and water logging also require detailed survey to ascertain the nature and magnitude of the problems and to suggest remedial measures. The outlay is for this purpose.

#### (ii) Soil Survey in Government Lands and Forests Lands

As part of land reform measures Government lands and vested forest lands are being distributed to the landless agricultural labourers. Suitability of these lands for agricultural purposes has to be appraised and cropping patterns and management practices have to be suggested. The outlay is for meeting the expenditure of staff for this scheme.

(iii) *Strengthening of Soil Survey Organisation*

The urgency of basic soil and land resources data for multi disciplinary purposes entail expanded activities in field soil survey, soil correlation and interpretation. The outlay is for strengthening the existing organisation and for starting a cartographic laboratory at Headquarters.

(iv) *Reconnaissance Soil Survey*

Rational application of soil and land resources data is essential for planning and implementing any programme of area development. The scheme envisages a reconnaissance soil survey of all the Districts in the State to prepare district and taluk soil survey reports and maps during the Plan period itself. The outlay is for meeting expenditure on the surveys.

(v) *Soil Survey of Soil Conservation Areas.*

The scheme envisages intensive soil survey of all the soil conservation scheme areas in the State in order to ascertain the type of soil conservation measures required in each land and to suggest suitable cropping pattern and management practices based on capability of the land. The provision is for undertaking this survey.

(vi) *Soil Survey—Follow-up Activities*

The information generated through scientific soil survey has not been adequately made use of in the State. A series of follow-up activities are therefore proposed to remedy the situation. The follow-up activities proposed include rendering advice to farmers on better land use and cropping pattern, conducting seminars and workshops to keep the extension workers well informed of the useful data accrued through soil surveys for the effective implementation of the agricultural development programmes. The outlay is for this purpose.

(vii) *Identification and Bench Mark Study of Soils*

The soils in the State show considerable variability. For the assessment of production potential it is necessary to develop sufficient data on the current levels of fertility and other aspects of soils. For this it is essential to identify the bench mark Soils in the State and study them in detail so that the result of research on fertilizer requirements, crop suitabilities etc., obtained can be applied to areas in the State having identical soil characteristics. The outlay is for conducting such studies.

(viii) *Land Use Demonstration*

The effect of optimum land use based on the recommendations emerging from soil survey needs to be demonstrated to convince the farmers the method of maximising returns from their lands. It is proposed to lay out land use demonstrations covering an area of 1100 hectares during the plan period. The outlay is for meeting the subsidy at the rate of Rs. 1000 per hectare as incentive to the participating farmers.

B. *New Schemes.**Popularisation of Scientific Cropping Pattern in Soil Conservation Areas*

It has been revealed that scientific cropping pattern and other improved management practices are not followed in all the areas where soil conservation works have been completed. Consequently the beneficiaries find it difficult to repay the loan portion of the investment. In order to reap the benefits of soil conservation the productivity from these areas have to be increased through intensive cropping and improved management practices. The Plan scheme is to give incentives to these beneficiaries to adopt scientific cropping pattern and improved management practices by giving subsidies limited to Rs. 500 per hectare towards additional inputs like planting materials, fertilizers and other tillage operations etc., It is proposed to cover an area of 1300 hectares during the Plan period.

(ii) *Adoption of Scientific Soil and Land Management Practices*

Detailed Soil Survey help to identify the limitations and potentialities of the land resources in crop production. Removal of such limitations and exploitation of the potentialities would require efforts on bunding, terracing, soil amelioration, improvement of soil structure, water holding capacity and priority removal of hard pans etc. by adopting suitable agronomic and land management practices. Especially in problem areas with ingressions of salt water, flood affected areas, marshy lands, marginal and sub-marginal lands such efforts are essential to make possible production oriented ventures in agriculture. The scheme is to provide technical know-how, supervision, and an incentive of 1/3rd of the cost limited to Rs. 1500 per hectare towards the adoption of production oriented scientific soil and land management practices.

(iii) *Establishment of Regional Soil Analytical Laboratory and Strengthening of Existing Laboratory*

Detailed laboratory studies of representative soils are essential for characterising soils with respect to morphology, genesis, classification and behaviours. The existing laboratory at Konni is inadequate to cope with the requirements of the eleven soil survey units working in the State. Delay in getting the laboratory data on soils collected by these eleven soil survey units is a bottleneck to speedier finalisation of soil survey reports. It is therefore proposed to establish two regional soil analytical laboratories, one at Trivandrum and another at Trichur and also to strengthen the existing laboratory at Konni and make it the central laboratory to undertake more sophisticated work connected with soil correlation studies. The outlay is for meeting the expenditure on additional staff, cost of equipments and chemicals etc.

III. *Research, Education and Training in Soil Conservation*

The present research efforts in Soil Conservation through the existing research unit in the Department are inadequate. The scheme is for improving facilities for expansion of the adoptive research in the research unit of the Department so as to generate sufficient data to tackle the soil erosion problems. Further the personnel

in the Department, especially at sub-assistant level, are seldom exposed to the techniques and methods of soil conservation which is essentially an integrated discipline of engineering, forestry and agriculture. Hence it is proposed to impart training to personnel at Sub-Assistant's level and also to selected farmers. The outlay is for meeting the training expenses as well as for strengthening adoptive research.

#### IV. Soil Conservation Scheme

##### A. On-going Schemes

###### (i) Soil and Water Conservation in Arable Lands

Investigation, preparation and execution of soil conservation measures on water shed basis in priority areas spread over all the districts in the State are undertaken as per provisions of Kerala Land Development Act 17 of 1964. The scheme is for protecting the cultivated lands from the hazards of soil erosion and to help increase crop production on a sustained basis. The scheme provides 25 per cent subsidy and 75 per cent loan recoverable in 20 half yearly instalments with interest. It is proposed to extend this programme to cover additional 6100 hectares during the plan period. The outlay is for this purpose.

###### (ii) Reclamation of Water-logged Areas

Several areas subjected to water-logging could be reclaimed and made productive by providing simple structures like bunds, sluices etc. The plan allocation is for executing programmes of this kind under the provisions of the Kerala Land Development Act, 17 of 1964. The target is to cover an area of 500 ha. during the Sixth Plan period.

###### (iii) Soil Conservation and Integrated Development of Land on Water Shed Basis Availing Institutional Finance.

The scheme aims at taking up soil conservation measures in 1333 hectares during the plan period, availing institutional credit. The direct charges on budget would be limited to making available the technical know-how, supervision and 25 per cent of the cost on works as subsidy which would be adjusted towards the credit advanced by the financial institution.

###### (iv) Pilot Scheme for River Training and Control of Stream Bank Erosion

River Bank erosion in the river basins like Bharathapuzha has assumed threatening proportions. The Plan scheme envisages investigation of the magnitude of the problem and adoption of appropriate measures like construction of groynes, marginal embankments, river bank rivetment and the adoption of techniques under agronomy, agrostology and forestry. The Plan outlay is for meeting the expenditure on construction and staff for implementing the pilot scheme in the Bharathapuzha basin.

###### (v) Soil and Water Conservation in the Catchments of River Valley Projects

Most of the reservoirs in the State are in danger of being silted up due to erosion resulting from unscientific and unregulated management of land. It

is proposed to protect the catchment of major river valley projects in the State by adopting suitable integrated soil conservation measures. The scheme will be implemented under the KLD Act 17, of 1964. The outlay is for meeting the expenditure on staff for investigation, preparation of work plans and for execution of the work.

###### (vi) Soil Conservation in Lands belonging to Harijans and Girijans

The poor economic base of the Harijans and Girijans do not permit them to make substantial investment on soil conservation measures in lands under their possession, which are generally highly vulnerable to soil erosion. The scheme is for undertaking soil conservation works in the lands belonging to Harijans and Girijans on 100 per cent subsidy basis over an area of 4861 hectare during the plan period. The outlay is for meeting the expenditure on subsidy and staff.

###### (vii) Soil Conservation in Irrigated Lands

The soil erosion problems in the State need to be studied through a detailed survey of the vulnerable areas to determine priority for execution. The plan outlay is for meeting the cost on survey over 8000 hectares of land during the Plan period.

###### (viii) Soil Conservation Survey

The problem of soil erosion especially in the downhill of High Ranges and in the upper slopes of the midlands has assumed serious proportions. The plan outlay is for meeting the expenditure on a survey on the problems of soil erosion and soil conservation in the State.

###### (ix) State Share for Soil Conservation in the Catchment of River Valley Project, Kundah

This Plan scheme is for the continuance of investigation, preparation and execution of Soil conservation works in the Kerala portion of the Kundah catchment with the objective of preventing soil erosion in the catchment, reducing the silt load to the reservoir and enabling increased production. The outlay earmarked is for meeting 50 per cent share of the State Government since it is a centrally sponsored scheme.

##### B. New Schemes

###### (i) Soil Conservation Mobile Units

The efforts on soil conservation in the State over the last 25 years, have brought under conservation measures only less than 5 per cent of the area requiring soil conservation. Substantial progress under soil conservation coverage can be achieved by attaching institutional finance if adequate technical service is made available in the field free of cost. The present organisational set up is fully engaged in taking up programmes on a water-shed basis. The large number of individual farmers who come forward for taking up soil conservation measures in their holdings by availing institutional finance also require to be provided with technical service for preparation of work plans and execution of soil conservation work. The outlay made in the plan is for establishing eleven mobile soil conservation units in the State, one in each district for rendering technical services and to cover 800 hectares per year.

- (ii) *Establishment of Extension Service and Communication Centre*

This scheme envisages establishment of an effective extension service, laying out of soil conservation demonstration plots, organising seminars, symposia, workshops etc. The outlay earmarked is for this purpose.

- (iii) *Soil Conservation in Government Lands and Forest Lands to be Assigned to SC/ST Evictees, Repatriates etc.*

The on-going scheme for soil survey in Government lands and forest lands to be assigned to landless agricultural labourers needs to be followed up with soil conservation measures so that these lands can be put to immediate agricultural operations. The outlay allocated is for meeting the expenditure on soil conservation works in 130 hectares during the plan period. The entire amount is being treated as subsidy.

- (iv) *Re-organisation of Soil Conservation Units at District Level*

With implementation of the District Administration Bill most of the developmental programmes will have to be finalised at the district level itself. This will necessitate re-organisation of the Departmental set up at District and Taluk level so that the increased responsibility of planning and execution of soil conservation work and the recovery of part cost (loan portion) of the investment on soil conservation schemes can be effectively taken up at District level. The outlay provided is for meeting the expenditure on additional staff required.

- (v) *Maintenance and Follow-up Activities for Completed Soil Conservation Schemes*

The soil conservation work in an area is attended to at present by a field unit temporarily stationed in that area, which on completion of the work shifts to new areas. This has resulted in an area treated earlier reverting to their original condition within a few years for want of follow-up action. The present scheme is for establishing one field unit in each district to take care of the maintenance and follow-up activities on the soil conserved areas so that sustained agricultural production from such areas are ensured. The outlay set apart is for establishing eleven field units for this purpose.

- (vi) *Soil Conservation in the Lands of SC/ST included in the Scheme Processed as per KLD Act*

Soil conservation schemes on watershed basis undertaken as per the KLD Act 17, of 1964 on arable lands cover lands belonging to SC/ST farmers also. As the repaying capacity of such SC/ST farmers, towards the loan portion involved in the scheme is meagre, the response from this sector of farmers is found to be very poor. As the work is done on a water-shed basis, it is not possible to bypass such patches of areas on the ground that their repaying capacity is poor. It is therefore proposed to get the soil conservation work in the lands belonging to SC/ST included in the schemes processed as per Kerala Land Development Act, by giving 100 percent subsidy. The outlay is for meeting the grant portion towards the works over an area of 180 hectares during the Sixth Plan period.

- (vii) *Scheme for Providing subsidy and Establishment charges of Integrated Project for soil conservation and Optimum Land use in Kottarakkara and Kunnathur Taluks.*

Kerala State Land Use Board has prepared a detailed scheme for soil conservation in Kottarakkara and Kunnathur Taluks of Quilon Districts at an estimated cost of Rs. 825 lakhs for an area of 16500 hectares, the incentive by way of subsidy to the small and marginal farmers is proposed to be met by the SFDA, Quilon. Subsidy to the farmers not covered by SFDA is proposed to be met from the State Plan funds. The scheme is to give interest subsidy also. The scheme will be implemented by utilising institutional finance. The outlay is for meeting the subsidy portion involved in the scheme.

#### V. Others.

- (i) *Thanneermukkom Project*

Construction of a salt water barrier at Thanneermukkom, across a narrow gap in Vembanad lake, was taken up to prevent the salt water intrusion into Kuttanad area. The first and second stages of the work have been completed covering a third each of the length of the barrier on either side for the middle one third portion construction a bridge-cum-regulator is in progress. The benefit from the project is being derived since the temporary closing of the middle portion by earthen bund. The outlay earmarked in the Plan is for completion of the third stage of work on the Project.

- (ii) *Kattampally Project.*

As part of the second stage of a multi-purpose scheme for irrigation, prevention of salt water intrusion, flood control, navigation and communication, a pilot project which envisages reclamation of about 410 hectares of marshy area has been taken up under this scheme. The Sixth Plan outlay is for completion of this project.

- (iii) *Land use Board*

The State Land Use Board is engaged in identifying the problems relating to land use and assessing the potential of the land resources in the State using modern techniques of survey, including remote sensing. Information developed by the Board is being used by different departments and agencies engaged in land resources development. The Board is also to function as a repository of information on land and related resources.

- (a) *Scheme for Land Use Survey using Remote sensing Techniques and Preparation of Optimum Land use Plan for the State.*

It is proposed to undertake a land use survey with the following objectives. (1) to prepare the present land use maps of the State at five minutes interval in the scale 1:15000 showing the area under forest, major crops, fallow lands, water logged areas, townships etc. (2) to prepare geomorphological

maps showing the area affected by and susceptible to erosion, (3) to identify priority areas requiring urgent soil and moisture conservation measures, (4) to prepare optimum land use plan for all districts taking into consideration all aspects of land use planning and (5) to develop expertise in interpretation of aerial photos and satellite imageries so that advancement in remote sensing techniques can be advantageously made use of for the development of agriculture and better utilisation of the available land resources in the State.

The scheme is to be completed over a period of seven years from 1980-81.

(b) *Scheme for Setting up a Data Bank in the Land Use Board.*

One of the important activities of the State Land Use Board is to collate and collect statistics relating to land resource and land use in the State. At present several agencies are engaged in the collection of data on land resource for different purposes independently, resulting in avoidable duplication of work. It is therefore necessary that there be a central agency in the State which can collect and store all such information and make it available to the agencies which require such data. With this view, it is proposed to set up a Data Bank in the State Land Use Board.

TABLE 5.5  
*Soil and Water Conservation—Scheme-wise Outlay*

(Rs. in lakhs)

Sl. N.	Name of the Scheme/Project	1979-80	1980-81		1980-85		1981-82	
		Actuals	Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I.	<i>Direction and Administration</i>	0.02	5.50	5.50	25.00	..	6.00	..
II.	<i>Soil Survey and Testing</i>							
	A. <i>Ongoing Schemes:—</i>							
	(i) <i>Soil Survey in Command Area and problem Areas</i>	2.93	3.20	3.20	17.00	..	3.50	..
	(ii) <i>Soil Survey in Government Lands and Forest Lands</i>	2.12	2.30	2.30	13.00	..	2.50	..
	(iii) <i>Strengthening of Soil Survey Organisation</i>	2.76	4.60	4.60	25.00	..	5.00	..
	(iv) <i>Reconnaissance Soil Survey</i>	0.31	2.75	2.75	15.00	..	3.00	..
	(v) <i>Soil Survey of Soil Conservation Areas</i>	0.19	1.10	1.10	6.00	..	1.15	..
	(vi) <i>Soil Survey-Follow-up Activities</i>	0.06	1.00	1.00	5.00	..	1.00	..
	(vii) <i>Identification and Bench Mark Study of Soils</i>	0.11	0.55	0.55	3.00	..	0.85	..
	(viii) <i>Land Use Demonstration</i>	0.34	1.00	1.00	8.00	..	2.00	..
	B. <i>New Schemes</i>							
	(i) <i>Popularisation of Scientific Cropping Pattern in Soil Conservation Areas</i>	..	..	..	7.00	..	1.00	..
	(ii) <i>Adoption of Scientific Soil and Land Management Practices</i>	..	..	..	18.00	..	3.00	..
	(iii) <i>Establishment of Regional Soil Analytical Laboratory and Strengthening of Existing Laboratory</i>	..	..	..	10.00	..	3.00	..
III.	<i>Research, Education and Training in Soil Conservation</i>	5.59	5.50	5.50	25.00	..	6.00	..
IV.	<i>Soil Conservation Schemes</i>							
	A. <i>On-going Schemes:—</i>							
	(i) <i>Soil and Water Conservation in Arable Lands</i>	46.72	63.50	63.50	300.00	..	70.00	..
	(ii) <i>Reclamation of Water Logged Areas</i>	1.50	2.20	2.20	10.00	..	2.50	..

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(iii)	Soil Conservation and Integrated Development of land on Watershed Basis availing Institutional Finance	0.74	5.50	5.50	25.00	..	6.00	..
(iv)	Pilot Scheme for River Training and Control of Stream Bank Erosion	..	2.20	2.20	10.00	..	2.50	..
(v)	Soil and Water Conservation in the Catchments of River Valley Projects	2.31	2.20	2.20	10.00	..	2.50	..
(vi)	Soil Conservation in the Lands Belonging to Harijans and Girijans	44.89	33.00	33.00	150.00	..	36.00	..
(vii)	Soil Conservation in Irrigated Lands	1.12	4.40	4.40	15.00	..	5.00	..
(viii)	Soil Conservation Survey	..	2.50	..	10.00	..	2.50	..
(ix)	State Share for Soil Conservation in the Catchment of River Valley Project, Kundah	..	15.00	15.00	125.00	..	15.00	..
<b>B. New Schemes</b>								
(i)	Soil Conservation Mobile Units	..	..	..	11.00	..	2.00	..
(ii)	Establishment of Extension Service and Communication Centre	..	..	..	5.00	..	1.00	..
(iii)	Soil Conservation in Government Lands and Forest Lands to be Assigned to SCs and STs Evictees, Repatriates etc.	..	..	..	9.00	..	3.00	..
(iv)	Strengthening and Re-organisation of Soil Conservation Organisation	..	..	..	28.00	..	6.50	..
(v)	Maintenance and Follow-up Activities for Completed Soil Conservation Schemes	..	..	..	12.00	..	2.50	..
(vi)	Soil Conservation in the Lands of SC/ST included in the Scheme Processed as per KLD Act	..	..	..	10.00	..	2.00	..
(vii)	Scheme for Providing Subsidy and Establishment Charges of Integrated Project for Soil Conservation and Optimum Land Use in Kottarakkara and Kunnathur Taluks	..	..	..	5.00	..	2.00	..
<b>V. Others:</b>								
(i)	Thannermukkom Project	41.113	7.00	25.00	250.00	250.00	25.00	25.00
(ii)	Kattampally Project	0.001	5.00	5.00	10.00	10.00	25.00	5.00
(iii)	Land Use Board	6.200	10.00	15.00	78.00	8.00	25.00	3.50
Total—Soil and Water Conservation		159.03	180.00	200.50	1250.00	268.00	254.00	33.50

## Special Area Programmes for Rural Development

### 1. Command Area Development.

The programmes under Command Area Development envisage modernisation of irrigation system, enlargement of supporting agricultural supplies and services such as demonstrations, training, and visits, adequate credit, improved varieties of seeds and other inputs and improved storage, processing and marketing facilities. During the Sixth Plan period Command Area Development programme is proposed to be implemented in the twelve irrigation projects, viz, Malampuzha, Mangalam, Pothundy Gayathri, Walayar, Chitturpuzha, Cheramanagalam, Peechi, Chalakudy, Cheerakuzhi, Vazhani and Neyyar. With in the period of five years, 45,000 hectares of land in the command areas will be brought under the scheme. The Government would provide as grant 50 per cent of the cost for providing field channels in the Command Areas and the remaining as loan. In the case of small, medium and marginal farmers part of the loan itself would be paid as subsidy.

The Command Area Development Programme is a Centrally Sponsored Scheme with fifty per cent Central assistance. The outlay proposed under this scheme is the State share to meet the cost of construction of field channels, detailed survey of areas selected for development, subsidy to small and marginal farmers for on-farm development, contribution to equity to Kerala Land Development Corporation and Special Loan Fund Account of credit requirement of other farmers and the overheads for implementing the programme.

### 2. Small Farmer Development.

Programmes meant for the small and marginal farmers and landless labourers have been in operation in the four districts of the State viz. Cannanore, Trichur, Quilon and Trivandrum. The 57 development blocks under the Small Farmer Development Agencies in these Districts require a financial outlay of Rs. 712.50

lakhs for the Sixth Plan period at the rate of Rs. 2.50 lakhs for each block. The cost of these schemes are borne by the Centre and the State on a 50:50 basis.

Besides implementing the above programmes, the SFDA, Trichur is providing subsidy for minor irrigation to small farmers having 2 to 4 hectares of land. The outlay proposed also includes the share of the State Government towards this programme.

### 3. Development of Backward Areas.

On account of specific resource constraints and regional specialities backward areas in the State like Kasargode and Wynad and certain regions in Malappuram and Idukki require area planning for their comprehensive development. The schemes envisaged in the Plan are provisions of transport and communication facilities, construction of roads, minor irrigation and soil conservation works, dairying, opening of health centres and rehabilitation of tribal population.

The outlay proposed also includes provision to the Kasargod Area Development Authority which has recently been constituted to execute and implement several schemes contained in the report of the Kasargod Development Committee, for the overall development of Kasargod area.

### 4. Integrated Rural Development (IRD)

IRD programmes are a package of schemes aimed at improving the economic status of the weaker sections of the society by enhancing their productivity, employment and income. The problems of rural development in Kerala are more complex on account of the heterogeneity in the resource base even in a small unit of area. In the resource use planning for integrated rural development, emphasis has to be laid on the utilisation of locally available resources to optimum levels. Being a target-oriented programme, IRDP is implemented by taking the family as a unit. The objective is to raise the participating families above poverty line by designing schemes taking into account their

TABLE 5.6  
Special Area Programme for Rural Development - Scheme-wise Outlays

Sl. No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	State share for Command Area Development	19.17	80.00	80.00	659.00	75.00	137.50	15.00
2	State Share for Small Farmer Development	60.53	72.50	85.92	390.92	..	76.25	..
3	Development of Backward Areas	30.00	50.00	50.00	300.00	..	55.00	..
4	State Share for IRDP—Area Planning	161.00	65.00	65.00	553.50	..	76.10	..
	State Share for IRDP in Command Areas		37.50	37.50	187.50	..	37.50	..
	State Share for IRDP in SFDA Areas		45.00	44.99	650.00	..	130.00	..
5	Scheme for Social Inputs in Area Development—Advance Action (UNICEF Assisted Programme)	..	..	1.25	10.00	..	5.00	..
Total—Special Area Programme for Rural Development		270.70	350.00	364.66	2750.92	75.00	517.35	15.00



capabilities, skill attainments, resources like land, manpower and aptitude of the families. A considerable portion of the funds required for the implementation of the schemes would have to be mobilised from the financial institutions. Part of the financial requirements will have to be met by the Central and State Governments. The outlay provided is the State's share for the scheme.

#### 5. *Scheme for Social Inputs in Area Development—Advance Action.*

The scheme is intended to (a) introduce a package of services for children and mothers within the target groups in selected areas; (b) assist the convergence, in selected locations, of services provided through sectoral programmes; and (c) augment the local capacity for programme development and help develop means for monitoring and assessment of the programmes. This is a cent percent UNICEF assisted programme sponsored jointly by the Government of India and UNICEF.

It is proposed to implement the programme, in the first phase, in 27 coastal Blocks in the five districts of Trivandrum, Alleppey, Ernakulam, Malappuram and Kozhikode. Five Project Managers with supporting staff have already been appointed for formulating project proposals. The outlay proposed is towards advance action for implementing the programme.

## Food

### *Price Support Scheme for Paddy, Tapioca and Sugarcane.*

Owing to the increasing cost of inputs and prevalence of a relatively low level of prices of agricultural commodities like paddy, tapioca and sugarcane there is a tendency among the cultivators to shift from such crops to the cultivation of perennial crops. Kerala being a chronically deficit State in food it is essential to maintain the present level of food production. With this objective in view it is proposed to provide incentives in the form of support price to the cultivators of paddy, tapioca and sugarcane. Accordingly, provision is made in the Plan under the price support scheme for adjusting the possible loss sustained in the procurement and sale of paddy and tapioca by Government and for providing incentive price to sugarcane cultivators in the State.

### *Strengthening of the Public Distribution System.*

The Kerala State Civil Supplies Corporation is the State agency dealing with the public distribution system within the State. For various reasons, particularly financial constraints, the Corporation has been able to cover only a small portion of the trade in essential commodities. In order to strengthen the public distribution system the Civil Supplies Corporation requires enhanced equity capital. The outlay proposed is for share capital contribution to the Corporation.

TABLE 5.7

### Food—Scheme-wise Outlay

Sl. No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Implementation of Price support Scheme for Paddy, Tapioca and Sugarcane	1.06	100.00	125.00	500.00	..	125.00	..
2.	Scheme for Strengthening Public Distribution System—Share Capital Contribution to Kerala State Civil Supplies Corporation	..	..	500.00	500.00	500.00	..	..
Total—Food		1.06	100.00	625.00	1000.00	500.00	25.00	..

## Animal Husbandry

The animal husbandry development programmes during the plan period 1980-85 envisage a total outlay of Rs. 17.22 crores. A short description of the various schemes proposed is given below.

### *I Administration and Training*

#### *1. Administration and Coordination*

It is proposed to strengthen the administrative wing of the Animal Husbandry Department during the

Sixth Plan period. The administrative set up at the district will be brought under the control of a Deputy Director with necessary supporting staff for the effective coordination, control and supervision of all activities of the Department. Thus reorganisation at district level will be helpful to the proposed District Councils for implementing various animal husbandry programmes. The Livestock production wing, Audit Wing, Poultry Development Cell and the stores purchase section of the Directorate will also be strengthened and necessary supporting staff will be provided for implementing the programmes like rinderpest eradication and Intensive Cattle Development Project.

## 2. Training Programme.

It is proposed to give advanced training for 140 Departmental Officers by deputing them for Post-graduate degree/diploma courses in Veterinary Science. Besides 100 officers will be deputed for short term training courses. Also 200 Livestock Assistants will be trained besides giving inservice training to 120 Livestock Assistants. Weaker sections of the farmers will also be given training in modern livestock and poultry rearing practices.

## II. Veterinary Services and Animal Health.

### I. Biological Production Complex.

The plan provision is for completing the construction of Biological Production Complex and other ancillary units. This project envisages stepping up of the production of the biologicals now being manufactured viz. ranikhet disease vaccine, fowl pox vaccine, pigeon pox vaccine, H.S. vaccine, duck plague vaccine etc., to meet the requirements of the State and also the likely demand that may arise for these products from neighbouring states. Anthrax vaccine, black quarter vaccine, rabies vaccine and rinderpest vaccine will also be manufactured on commercial lines. A Quality Control Laboratory for improvement of biologicals will be set up. Epidemiological studies on various animal diseases will be taken up. A portion of the provision is set apart for purchase of equipments, vehicles and for additional staff.

### 2. Strengthening and Re-organisation of Veterinary Hospitals.

The scheme is for introducing an effective animal health care system in the State to ensure the timely availability of veterinary aid to those who need it at their premises. Multi-disciplinary approach in combating animal diseases, reproductive disorders and nutritional imbalances will be introduced. Veterinary polyclinics will be established in all Taluk head quarters in a phased manner. This will pave the way for improving the existing veterinary services to have modern veterinary aids and laboratory support for arriving at prompt and correct diagnosis of diseases and facilities for undertaking surgical operations. Specialists will be appointed to man the polyclinics with more diagnostic and treatment facilities. The outlay is for purchase of equipments, medicines, vehicles, and appointment of staff and for construction of building for these institutions. Veterinary aid facilities in rural areas will also be improved by providing the services of qualified veterinary personnel in rural veterinary dispensaries.

### 3. Disease Investigation Laboratory.

Well organised disease investigation units and diagnostic laboratories are basic requirements for improving the clinical and preventive medicine services. It is essential to take up detailed investigation of various emerging diseases in order to effectively check the out-break of diseases especially in the areas of intensive livestock production. The Chief Disease Investigation Laboratory which is being constructed at Palode will be completed and properly equipped. The outlay is for works purchase of equipments, chemicals and vehicles and appointment of staff.

### 4. Control of Foot and Mouth Disease Vaccination (State Share)

The cross bred animals are more susceptible to foot and mouth disease, causing high mortality, morbidity and lowered production resulting in huge economic loss. Since the cost of foot and mouth disease vaccine is high, the farmers belonging to the financially weaker sections cannot afford to get their animals vaccinated in time. It is proposed to subsidise 50% of the cost of the foot and mouth disease vaccine required to vaccinate animals in the intensive areas of livestock production with a view to lighten the financial burden and also to make the vaccination more popular and acceptable. Fifty percent of the cost of vaccine will be shared by the Central and State Governments. Animals owned by scheduled caste/scheduled tribes will be vaccinated free of cost. In the event of an outbreak, all the cattle of the affected area will be vaccinated, free of cost to the farmers. The cost of the vaccine will be shared by the Government of India and the State Government. About 3 lakh vaccinations will be done during the plan period. The provision is for meeting the State's share of expenditure.

### 5. Control of Foot and Mouth Disease

The provision is for subsidising the cost of foot and mouth disease vaccine required to vaccinate the animals in the areas not covered by the Centrally Sponsored Scheme of Foot and Mouth Disease Control. About 1.7 lakh animals will be vaccinated during the plan period.

### 6. AICRP on Epidemiological Studies of Foot and Mouth Disease (State share)

The all India Co-ordinated Research Project will be continued. The unit established in Kerala will take up epidemiological studies on Foot and Mouth Disease in liaison with the ICAR to wipe out the virus responsible for outbreak of the disease in the State. This will help to adopt more efficient control measures against the disease. The provision is for meeting the State's share of expenditure.

### 7. Control of Avian Diseases.

The proposal envisages to establish a full-fledged laboratory to conduct systematic study and investigation of the incidence of poultry diseases in different regions of the State, with a view to control the same. The laboratory will be strengthened to take up studies on duck diseases prevalent in Kuttanad region. Mareke's Disease Vaccine and such other vaccines required to protect the chicks will be imported, if not available locally. The outlay is for works, purchase of equipments, chemicals, biologicals, vehicles, and appointment of staff.

### 8. Mobile Farm Aid Units.

As the households in Kerala are scattered over a wide area the farmers located far a way from the Veterinary institutions do not get prompt veterinary aid. To provide efficient and prompt veterinary services to farmers, mobile farm aid units will be established in Community Development Blocks in a phased manner. These itinerant units will visit every Panchayat within

the Block area and will carry out veterinary treatment, preventive inoculation and support extension activities. During the Plan period 31 units will be established.

#### 9. *Organising Infertility Camps.*

It has been found that infertility among cross bred cattle is one of the major problems in cattle development. Sixty percent of these cases could be corrected by proper treatment and management. Camps are proposed to be organised in rural areas to detect and treat such cases. About 4000 camps are proposed to be conducted during the plan period. The provision is for purchase of medicines and incidental expenditure.

#### 10. *Scheme for Eradication of Rabies.*

The proposal is to control and eradicate rabies on a multifaceted action programme of conducting detailed survey on the occurrence of the disease, identifying the foci of infection, destruction of stray dogs and protecting the licensed dogs with vaccines. During the plan period 2.2 lakh dogs are proposed to be vaccinated and 3 lakh stray dogs are proposed to be destroyed. The outlay provided is for purchase of equipment and vaccine, for assisting the local bodies for destruction of stray dogs, for establishing carcass utilisation units and for vehicles to transport killed dogs.

#### 11. *Mastitis Control.*

Two Diagnostic Laboratories have been established in the Intensive Cattle Development Project areas for mastitis detection work. These laboratories will be continued during the plan period. Mastitis detection kits will be distributed to Intensive Cattle Development Project Sub Centres and farmers' organisations for early detection of the disease. The outlay is for purchase of equipments and chemicals.

#### 12. *Disease Free Zone*

The concept of Disease Free Zone has been advocated by FAO and other international organisations to enable the countries which are free from certain specific contagious/infectious diseases to export livestock and livestock products to other nations. As a prelude to establishing Disease Free Zone, the Rinderpest Checkposts in the State border will be strengthened to check the movement of animals, which are potential carriers of animal diseases. A Marine Products Inspection Cum-Certification Laboratory will be established at Cochin to inspect livestock and marine Products exports from the State. The outlay is for staff, construction of buildings, purchase of equipments and vaccine.

#### 13. *Rinderpest Eradication (State Share)*

The National Commission on Agriculture has recommended that the source of each and every outbreak of Rinderpest should be scrupulously traced and definite remedial measures taken to ensure that the lapses responsible for the outbreak do not recur. For achieving this objective, the endemic pockets of the disease will be located by carrying out systematic searches, and affected animals will be destroyed

on payment of compensation to the owner. Containment vaccination will be done to all the animals in and around the pockets of incidence of the disease.

#### 14. *Cattle Insurance*

The scheme is to encourage the farmer to rear improved cross bred cows and buffaloes and invest more on livestock production. Cattle Insurance will also aid the easy flow of credit to sections of farmers in the rural areas in taking up dairy farming as their main occupation. Poultry and duck insurance will also be taken up under the scheme. Fifty percent of the first year's premia to insure the animals will be given as subsidy under the scheme. In the case of SC/ST farmers, first year's premia will be fully subsidised and 50 percent of the annual premium will be paid as subsidy during subsequent years.

#### 15. *Expansion of Central veterinary Stores*

To provide proper veterinary health cover, a number of institutions have been established in various parts of the State. A large quantity of medicines and equipments are required every year for the use of these institutions. But the same could not be purchased in time or distributed properly for want of proper organisational set up, improved storage facilities and proper distribution arrangements. It is proposed to expand the three Regional Stores to establish District Depots and to build up a central organisation to investigate and assess the requirements, effect timely purchases and monitor the distribution. The outlay earmarked is for purchase of vehicles and furniture, construction of buildings and for providing required staff.

### *III Investigation and Statistics*

#### *1. Planning and Monitoring Cell*

The scheme is to establish a full fledged planning and monitoring cell attached to the Directorate of Animal Husbandry. The cell will formulate suitable schemes for the planned development of the Animal Husbandry sector and will also identify and formulate schemes for obtaining assistance from World Bank and other financing institutions. Besides starting a data bank, the cell will monitor the schemes under implementation and evaluate the schemes already implemented. The provision is for continuing and strengthening the cell.

#### *2. Animal Husbandry Statistics and Sample Surveys*

The proposal is to continue the Sample Survey on "estimation of economic loss on account of mortality, loss in milk production and reduction in working capacity due to various animal diseases" so as to fix priorities in taking up disease control programme and to assess the impact of various development programmes implemented by the Department. The integrated sample survey for estimation of the production of milk, eggs and other livestock products will be continued. A portion of the outlay will be set apart for taking up new surveys and studies recommended by the Central Statistical Organisation and similar agencies.

#### *3. Livestock Census*

It is proposed to conduct the 13th Quinquennial Livestock Census during 1982-83. Preliminary work

for conducting the livestock census will be taken up during 1981-82.

#### *IV Cattle Development*

##### *1. Establishment of Jersey Breeding-Cum-Cross bred Farm*

The Plan proposal is for completing the construction works of the Jersey Breeding-Cum-Cross bred Farm at Vithura and its extension unit at Palode as well as to equip and strengthen the farm to take up the breeding programme. Fodder cultivation will be extended to the entire arable land attached to the farm. Hundred pure bred Jersey animals and 300 cross bred cows will be maintained for production of cross bred bulls. The provision is for purchase of animals, feeding charges, cultivation expenses, staff and for completing the works.

##### *2. Establishment of Intensive Cattle Development projects*

It is proposed to continue the Intensive Cattle Development Projects established in the northern part of the State and to set up a large sized Intensive Cattle Development Project in the southern part of the State where considerable livestock development work has already been done and where there is a need for a thrust in the cross breeding programmes. Intensive efforts will be made to enhance the milk production in the State. The existing Key Village Blocks in the area proposed to be covered by the Intensive Cattle Development Project will form part of the new set up and new units will be opened wherever necessary. The project would cover one lakh breedable cows providing the entire need of supplies and services including credit facilities for procurement of cattle, feed and fodder, housing requirements of cattle etc. The outlay is for purchase of equipment, semen, vehicles, and for additional staff and also for giving subsidy for purchase of animals and construction of cattle sheds to weaker sections of farmers.

##### *3. Scheme for Distribution of Cross Bred Heifers and Assistance to Economically weaker sections including Harijans to take up Cattle Rearing*

It is proposed to distribute cross bred heifers at 50% subsidy to economically weaker sections of small Farmers, Marginal Farmers, Agricultural Labourers and for providing subsidy for construction of cattle sheds. The Scheduled Caste/Tribe Farmers will be provided with 75 percent subsidy to purchase cross bred cows and subsidy will be given for construction of cattle sheds.

##### *4. Programme for Feed Subsidy in NonSFDA Districts*

More than 50 percent of the cattle in the State are cross breeds. Most of these cross bred animals are owned by weaker sections of farmers. As they find it financially difficult to rear cross bred calves properly, the calves do not grow well and become less productive animals in spite of their improved genetic potential. Therefore it is proposed to assist the weaker sections of farmers by providing necessary package of services and inputs by way of loans and subsidy for rearing the cross bred female calves to production stage. Small and marginal farmers in the non SFDA districts will be given 50 percent subsidy and agricultural labourers two-third subsidy for the

feed required to raise the calf from 4th month to 28th month or till they calve whichever is earlier. Necessary health and insurance cover will be provided to these animals.

##### *5. Expansion of Livestock Farms*

The livestock farm at Kodappanakkunnu in Trivandrum district and the drystock farm at Kuriotumala in Quilon district will be expanded suitably to produce buffalo bulls required to take up buffalo development in the State. The provision is for taking up land development, construction of buildings, purchase of animals and equipments.

#### *V. Poultry Development*

##### *1. Poultry Farms and Central Hatchery*

The provision is for the expansion of the existing poultry farms and Central Hatchery by purchasing fresh breeding stock and by providing additional facilities to accommodate more birds. The breeding work undertaken at Central Hatchery will be enlarged and continued. A constraint analysis will be carried out to identify the reasons for the gap between potential and actual yield of egg. Turkey breeding will also be taken up at the Poultry Farm, Quilon to produce high quality pullets for distribution to farmers. The activities of the Feed Analytical Laboratory will be expanded. Cross-breeding activities of poultry to evolve a suitable strain of chicks which is relatively disease resistant, and can thrive on village feed and lay about 160 to 180 eggs per annum will be taken up to encourage backyard poultry in the State.

##### *2. Poultry Training Institute*

The provision is for continuing the Poultry Training Institute at Chengannur. The Institute will impart inservice and refresher training to extension personnel, para veterinary staff and farmers in modern poultry rearing practices.

##### *3. Chick Sexing School*

To enable the farmer to identify the sex of the chicks, a chick sexing school has been started at Chengannur, attached to the Central Hatchery. The plan provision is for strengthening the chick sexing school so as to train 40 chick sexers in a year in two batches for a period of 5 months each.

##### *4. Distribution of Poultry to Economically Weaker Sections*

The Plan provision earmarked is for distribution of five pullets each of 8 to 10 weeks old at 75 percent subsidy to 50,000 farmers belonging to weaker sections. A part of the provision is set apart for distributing five pullets of 8 to 10 weeks old, to each of 25,000 Scheduled Caste/Tribe families free of cost to encourage them to take up backyard poultry keeping.

##### *5. Duck Farm*

The scheme envisages development of a commercial type of duck suitable for the agro-climatic conditions of Kerala by breeding 'desi' ducks with exotic breeds.

The production of suitable breed strains will be undertaken at the duck farm, Niranam, and the multiplication and distribution of the commercial ducklings will be done at the duck farm campus at Tiruvalla. Necessary construction works will be undertaken at Niranam and Tiruvalla. Duck incubators will be imported to take up custom and farm hatching of duck eggs. The provision is for the construction of duck houses and other essential buildings including residential quarters, purchase of equipments, breeding stock, etc.

#### 6. *Broiler Production*

The broiler production units will be strengthened suitably to produce sufficient number of broiler chicks so as to popularise broiler production in the State. Parent stock will be procured from reputed farms for the production of commercial chicks. The amount provided is for the purchase of parent stock and for other infrastructure facilities like buildings and equipments.

#### 7. *Poultry Clubs in Schools*

In order to generate interest and awareness in poultry farming among school children poultry clubs will be organised in selected schools. Necessary technical know-how and training will be given to the students in consultation with the school authorities. Each student will be given five pullets to be reared in the backyards. The chicks will be given free of cost. Cost of feed will have to be met by the students.

#### 8. *Poultry Development through Farmers' Organisations*

The scheme aims at making a thrust into the various aspects of poultry development activities through farmers' organisations ranging from poultry production to marketing. Collaborative projects with private poultry industry will be encouraged by liberal assistance. Primary co-operatives of poultry farmers will be organised and they will be given share capital contribution and managerial assistance. These primary societies will be brought under Regional Co-operatives, which in turn will have an Apex State Co-operative. The assistance from NCDCl to these co-operative will be channelised through the State co-operative. These societies will be encouraged to take up the full spectrum of activities under poultry development including breeding, hatching activities, growing of stock both for egg type and meat type, feed production and marketing of egg and poultry products.

### VI. *Pig-Development*

#### 1. *Pig Breeding Farm*

The provision made is for establishing a Pig Breeding Farm at Kanjirappally for the production of high quality piglings for distribution to farmers. Three recognised breeds of pigs viz., Canadian Duroc, Large White Yorkshire, and Landrace/Tamworth will be maintained for three-way crossing. The requisite number of animals will be imported. The outlay is for land acquisition, civil constructions, purchase of livestock feeding charges, vehicle etc.

#### 2. *Intensive Pig Development Programmes*

The scheme is to make available pig meat at reasonable price to people. High quality pigs will be

distributed to selected farmers for breeding purpose at subsidised rates. Weaners will be supplied to farmers for fattening. The participants of this programme will be eligible for financial assistance in the form of grant for the construction of pigsties and subsidy for the maintenance of boar. Feed will be made available at subsidised rate for the piglings produced by the farmers under the breeding programme. Medicines required for deworming will also be supplied free of cost. In addition to supporting such pig development work, efforts will be made to popularise pig farming as a commercial avocation among interested farmers in the high income groups so that mass pig production can be stimulated to support the Bacon Factory and meat processing activities on an economic scale.

### VII. *Goat Development*

#### 1. *Expansion of Goat Farm*

The provision is to expand the existing goat farm at Komeri to take up selective breeding and cross breeding with the aim of evolving a dual purpose breed suitable for milk and meat. It is proposed to provide necessary infrastructure like rearing sheds, equipment and staff to take up the cross breeding work on an intensive scale. Selection and breeding of Malabari goats will be continued. The provision is for purchase of goats, feeding charges, and for construction of buildings.

#### 2. *Goat Villages*

The proposal is to establish goat villages in selected compact areas where there is a concentration of Scheduled Castes/Scheduled Tribes. The SC/ST farmers in these areas will be supplied with kids and improved varieties of bucks for breeding. The programme will benefit largely the rural poor among the target groups. During the plan period 28,000 farm families will be assisted under the programme.

### VIII. *Fodder Development*

#### 1. *Fodder Development*

To step up fodder production, fodder nurseries will be set up at the livestock and poultry farms and other departmental institutions where sufficient land is available. Fodder trees will also be planted. Local bodies will also be persuaded to plant fodder trees in 'poramboke' lands. Planting of fodder trees will also be taken up as a part of social forestry programme in the departmental land available in all cattle, drystock and poultry farms.

### IX. *Other Livestock Development*

#### 1. *Modernisation of Slaughter Houses and Establishment of Meat Board*

Slaughtering of animals is presently carried out in an unhygienic and crude manner in the existing slaughter houses. The slaughter houses require considerable improvement to produce wholesome meat under hygienic conditions. If the slaughter houses are modernised the by-products which are now unused and wasted can be profitably utilised and ancillary industries can be started. It is proposed to assist the

city corporations and municipalities to construct modern slaughter houses. Of the total cost, two-thirds will be met by the Government and the balance will be borne by the Corporation/Municipality. To give necessary guidance and assistance in this direction a Meat Board is proposed to be set up with the assistance of Government of India.

## 2. Tribal Area Sub Plan

The object of the scheme is to accelerate the progress of tribal development through Animal Husbandry Programmes. It is proposed to distribute cross-bred cows, goats and poultry among the tribals in identified tribal sub plan areas. About 5000 tribal families will be benefited by this programme during the plan period.

## 3. Karshika Vignan

The outlay is for educating the farmers about modern animal husbandry practices through seminars, cattle shows, audio visual films, leaflets, booklets etc. Cattle shows, calf rallies, milk yield competition and seminars will be arranged with the active participation of farmers. Farm Information Bureau will also be actively involved in implementing the programme. The provision is for the above activities and for making an audio-visual film.

## 4. Special Livestock Production Programme (State Share)

This programme is being implemented as a Centrally Sponsored Scheme in the Small Farmers' Development Agency Districts of Trivandrum, Trichur and Cannanore for providing feed subsidy to crossbred calves as well as assistance to poultry and pig production on the national pattern. The cost of feeding the calves owned by these farmers from calthood to calving will be subsidised. Assistance to start poultry units and pig fattening/breeding units will also be made available to these weaker sections. It is proposed to assist 30,000 farm families under the scheme during the plan period.

## 5. Workshop for Veterinary and Poultry Equipments

With the increase of the Veterinary Institutions a large number of different types of equipments were purchased and put to use in various departmental institutions. Some of them require repair and replacement of parts from time to time. In addition, with the increasing investment in poultry industry, the demand of poultry equipment from the private sector has also increased considerably. Therefore it is proposed to establish a full fledged workshop to manufacture poultry equipment, spare parts of veterinary equipment and to undertake repairs of veterinary equipment and appliances.

TABLE 5.8

### Animal Husbandry - Scheme-wise Outlay

(Rs. in lakhs)

Sl. No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>I.</i>	<i>Administration &amp; Training</i>	2.05	9.00	9.00	57.00	..	10.00	..
1.	Administration & Co-ordination	0.30	5.50	5.50	34.00	..	6.00	..
2.	Training Programme	1.75	3.50	3.50	23.00	..	44.00	..
<i>II.</i>	<i>Veterinary Service &amp; Animal Health</i>	71.47	105.50	105.50	547.00	100.00	109.20	24.50
2.	Biological Production Complex	10.23	12.00	12.00	55.00	9.00	15.00	5.00
2.	Strengthening and Re-organisation of Veterinary hospitals	34.63	30.00	30.00	210.00	60.00	40.00	10.00
3.	Disease Investigation Laboratory	6.67	7.00	7.00	25.00	10.00	8.00	5.00
4.	Control of Foot and Mouth disease vaccination (State Share)	..	3.75	3.75	21.00	..	4.25	..
5.	Control of Foot and Mouth Disease	2.69	3.75	3.75	12.00	..	2.00	..
6.	A. I. C. R. P. on Epidemiological Studies of Foot and Mouth disease (State Share)	..	0.20	0.20	1.00	..	0.20	..
7.	Control of Avian Diseases	1.12	4.50	4.50	18.00	4.00	5.00	2.50
8.	Mobile Farm Aid Units	9.30	8.00	8.00	60.00	..	10.00	..
9.	Organising Infertility Camps	0.55	0.80	0.80	5.00	..	1.00	..
10.	Rabies Control	4.22	3.00	3.00	40.00	..	6.00	..
11.	Mastitis Control	0.84	1.00	1.00	5.00	..	1.00	..
12.	Disease free zone	1.09	3.00	3.00	15.00	5.00	3.00	1.00
13.	Rinderpest Eradication (State Share)	..	2.00	2.00	5.00	..	0.75	..
14.	Cattle Insurance	0.13	26.50	26.50	55.00	..	10.00	..
15.	Expansion of Central Veterinary Stores	..	..	..	20.00	12.00	3.00	1.00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
III. <i>Investigation &amp; Statistics</i>		3.28	5.00	5.00	41.00	..	6.50	..
1. Planning & Monitoring Cell		0.31	0.75	0.75	4.00	..	0.75	..
2. Animal Husbandry Statistics and Sample Surveys		2.93	4.25	4.25	25.00	..	4.75	..
3. Livestock Census		0.04	..	..	12.00	..	1.00	..
IV. <i>Cattle Development</i>		26.85	93.17	93.17	473.00	59.00	99.00	16.00
1. Jersey Breeding-Cum-Cross-bred farm		22.24	25.00	25.00	125.00	40.00	25.00	10.00
2. Establishment of Intensive Cattle development Projects		4.61	16.00	16.00	60.00	15.00	12.00	5.00
3. Distribution of Cross-bred heifers and assistance to economically Weaker Sections including Harijans to take up Cattle rearing		..	8.40	8.40	65.00	..	19.00	..
4. Calf-feed Subsidy in non-SFDA districts		..	43.77	43.77	205.00	..	40.00	..
5. Expansion of Livestock Farms		..	..	..	18.00	4.00	3.00	1.00
V. <i>Poultry Development</i>		16.91	33.50	33.50	198.00	45.00	38.25	13.25
1. Poultry Farms and Central Hatchery		4.47	12.50	12.50	52.00	21.00	13.50	7.25
2. Poultry Training Institute		0.66	2.00	2.00	10.00	4.00	3.00	2.00
3. Chick Sexing School		1.61	1.00	1.00	7.00	..	1.50	..
4. Distribution of Poultry to Economically Weaker Sections		1.62	8.00	8.00	30.00	..	5.25	..
5. Duck Farm		1.40	2.50	2.50	15.00	5.00	2.00	1.00
6. Broiler Production		4.48	3.00	3.00	25.00	5.00	5.00	1.00
7. Poultry Clubs in Schools		0.75	1.50	1.50	18.00	..	3.00	..
8. Poultry Development through Farmer's Organisations		1.92	3.00	3.00	41.00	10.00	5.00	2.00
VI. <i>Pig Development</i>		4.20	6.50	6.50	55.00	10.00	10.50	3.00
1. Pig Breeding Farm		2.40	4.00	4.00	30.00	10.00	6.00	3.00
2. Intensive Pig Development Programme		1.80	2.50	2.50	25.00	..	4.50	..
VII. <i>Goat Development</i>		2.92	3.50	3.50	65.00	12.00	10.50	3.00
1. Expansion of Goat Farms		2.92	3.50	3.50	30.00	12.00	5.50	3.00
2. Goat Villages		..	..	..	35.00	..	5.00	..
VIII. <i>Fodder Development</i>		..	..	..	10.00	..	2.00	..
1. Fodder Development		..	..	..	10.00	..	2.00	..
IX. <i>Other Livestock Development</i>		34.31	49.50	49.50	276.00	35.00	52.00	6.00
1. Modernisation of Slaughter-Houses and Establishment of Meat Board		..	4.00	4.00	40.00	30.00	6.00	5.00
2. Tribal area Sub-Plan		3.49	13.00	13.00	50.00	..	10.00	..
3. Karashika Viganan		0.21	1.50	1.50	6.00	..	1.00	..
4. Special Livestock Production—Programme (State Share)		30.61	31.00	31.00	155.00	..	31.00	..
5. Workshop for Veterinary and Poultry Equipment		..	..	..	25.00	5.00	4.00	1.00
Total—Animal Husbandry		161.99	305.67	305.67	1722.00	261.00	337.95	65.75

## DAIRY DEVELOPMENT

Short descriptions of the various schemes included in the Sixth Plan under Dairy Development are given below:

### I. Direction and Administration

#### 1. Dairy Development Staff

The Dairy Development Department has a crucial role to play in the fields of cross-breeding, fodder development, development of Dairy Co-operatives and provision of extension services. The administrative machinery of the Department has therefore to be geared up to take up the responsibility and efficiently carry out the tasks entrusted to it for achieving the goals set in the Plan. It is proposed to strengthen and re-organise the administrative machinery at the headquarters and at the regional and district levels. A planning and monitoring cell will be formed at the Directorate for the formulation and monitoring of development schemes and for the evaluation of the schemes already implemented.

### II. Dairy Development

#### 1. Rural Dairy Extension and Advisory Service and Scheme for Improving Milk Production Potential of Cows and Augmenting Milk Production

This scheme is to educate the rural farmers to adopt modern and improved dairy practices with a view to improving the productive efficiency of the cattle reared by them. The farmer has to be convinced of the efficiency of cross-breeding to evolve a better breed of cattle, the profitability of proper feeding and management practices so that he will adopt them and reap the fruits of various advances made in dairy science and dairy Husbandry. The scheme for giving subsidy to the weaker sections of farmers to construct model cattle sheds will be continued on a wider scale.

The ongoing scheme for improving the milk production potential of cows through cross breeding by artificial insemination utilising the services of self employed lay inseminators known as "Cattle Improvement Assistants" will be continued during 1980-85 also. It is also proposed to strengthen and restructure the dairy extension and farm advisory service with a view to disseminate improved technology in dairying among larger number of farmers in the State.

A portion of the outlay is earmarked for giving subsidy to scheduled castes/scheduled tribes for the construction of model cattle sheds.

#### 2. Operation Flood II and Project for Milk Production and Marketing with Assistance from Indian Dairy Corporation—State Share

The Kerala Co-operative Milk Marketing Federation Limited has already been registered as the agency vested with the authority to implement the Operation Flood-II programme in this State. According to this programme, the State has to provide land, water and power etc. for the establishment of infrastructure facility for milk marketing and production of inputs like cattle feed. The outlay proposed is to meet the State's share of expenditure under the programme.

#### 3. Production and Supply of inputs for Cattle breeding Programme of the KLD and MM Board

This scheme is for:

- (a) Production of inputs mainly in the form of high quality frozen semen of selected bulls under a specific breeding policy.
- (b) Supplying the frozen semen to the cattle breeding units operated by the Departments of Animal Husbandry and Dairy Development regularly.
- (c) Production of liquid nitrogen (LN2) by operating LN2 Plants strategically located in different parts of the State and supplying it to the cattle breeding units at regular intervals for preserving the semen.

#### 4. State Government contribution towards Swiss Assisted Dairy Projects in Northern Districts

A proposal has been submitted to Government of India for starting a dairy development project in Cannanore, Calicut, Malappuram and Palghat on lines similar to that of Operation Flood-II utilising Swiss financial assistance. Only token provision is proposed under this Scheme.

#### 5. Production of Buffalo Frozen Semen

Under this scheme frozen semen of Murrah breed for artificial breeding will be provided. The scheme was started in 1978-79 and trial freezing has proved successful. More buffalo bulls will be purchased from Punjab and Haryana for the production of frozen semen which will be used through the existing cattle breeding centres.

#### 6. Herd Book Organisation

This scheme envisages setting up of a herd book organisation for registering and maintaining records of animals belonging to new breeds. This will provide information on various breeds and help to control breeding activities.

#### 7. Quality Control Programme

It is proposed to set up mobile quality control units in each district to enforce the quality pricing for milk and for giving guidance to Milk Co-operatives in quality control work. The scheme also envisages the establishment of one central laboratory with facilities for conducting analysis of milk and milk products as well as cattle feed.

### III Fluid Milk Plants

#### 1. Milk Supply Schemes Calicut, Cannanore and Palghat

##### (a) Calicut Milk Supply Scheme

The Calicut Dairy Plant is being operated by the Calicut Co-operative Milk Supply Union under the control of the Dairy Development Department. The installed capacity of the Calicut Dairy Plant is to process and bottle 6,000 litres of milk per day. Against this, the daily through-put of milk in the Calicut Dairy Plant has now exceeded 10,000 litres. It is, therefore, necessary to provide additional equipments like



Compressor, milk storage tanks etc., to enable the Union to handle the additional quantity of through-put of milk at the dairy.

(b) *Cannanore Milk Supply Scheme*

The Cannanore Milk Supply Project with a capacity to handle 10,000 litres of milk per day established by the Department was handed over to the Kerala Livestock Development and Milk Marketing Board for regular operation with effect from 30-8-1979. For the smooth functioning of the dairy plant, it is essential to install a generator and provide a well for water supply purposes.

(c) *Palghat Milk Supply Scheme*

The Palghat Dairy Plant has a capacity to handle 6,000 litres of milk per day. The management of the Dairy has been entrusted to the Kerala Livestock Development and Milk Marketing Board while the Dairy Plant still remains with the Dairy Development Department. As the quantity of milk handled by the plant has increased considerably, exceeding its present capacity, the plant needs additional facilities like Pouch filling machine.

The provision proposed is for additional facilities and equipment needed for the three dairies at Calicut, Cannanore and Palghat.

#### IV *Education and Training*

##### 1. *Training of Personnel*

Under this scheme it is proposed to impart training to the Departmental Officers in various disciplines of dairying.

##### 2. *Dairy Training Centre*

Majority of the farmers are ignorant of modern improved practices and have to be educated and trained in improved dairy practices in order that they adopt dairy farming as a lucrative business. It is therefore essential that training facilities are provided for giving training to the farmers to equip them better to take to modern dairy farming. There is also considerable scope for training self employed and educated youth to take up the profession of dairy production as a vocation.

Under this programme, a Dairy Training Centre, will be established in the State. Short term training programmes will be organised for the rural farmers, educated youth and the dairy co-operative personnel. The expenses of the trainees during the training period will be met. A full fledged dairy laboratory will also form part of the Training Centre.

##### 3. *Training to Scheduled Castes/Scheduled Tribes in Dairying*

It is proposed to depute persons belonging to Scheduled Castes/Scheduled tribes for undergoing dairy courses like I.D.D./Degree in Dairying, at recognised dairy institutions like National Dairy Research Institute, in order to make up for the paucity of candidates to fill up positions in the State service. About 10 persons will be deputed for such training during the Plan period.

#### V *Feeds and Fodder Development*

##### 1. *Improvement to Sewage Farm, Valiathura*

The Sewage Farm, Valiathura, is a fodder farm under the Department where fodder is grown by irrigation with city sewage. The farm has to be provided fencing to prevent encroachment of cattle as well as unlawful settlers. The main channel of the Sewage Farm has to be reconstructed to ensure proper drainage of the effluents. It is also proposed to expand the Farm by extending cultivation in the vacant area and to further improve the Sewage Farm.

##### 2. *Inter-cropping of Fodder in Coconut Gardens-Cultivation of catch crops in rice fallows-Cultivation of Grass Legume Mixtures and Quick Maturing Fodder Crops in crop rotation*

The ongoing scheme of inter-cropping high yielding varieties of nutritious fodder grasses in coconut gardens will be continued with the following modifications. Under this programme the farmers are encouraged to take up the cultivation of fodder in their own lands. The vegetative planting materials of the high yielding varieties of fodder are given free of cost. It is proposed to cover an area of 1710 hectares under the scheme during the period (1980-85). About 10 per cent of the above fodder plots will be selected and maintained as "Demonstration Plots". Subsidy in kind in the form of fertiliser worth Rs. 1000 per hectare for the first year and fertiliser worth Rs. 500 per hectare for the second year will be given for the "Demonstration Plots" selected, each plot not exceeding 50 cents. The scheme will benefit nearly 30,000 farmers.

Similarly the on going scheme for raising catch crops like fodder cowpea, horsegram etc., in rice fallows during the 2nd/3rd crop season utilising the residual moisture, will be continued. The farmers are encouraged to take up cultivation of these crops by the supply of seeds at subsidised rates. Fifty per cent of the cost of the seeds will be given as subsidy to the farmers from 1981-82. The seeds will be sold through the dairy co-operative societies which will be given 5 per cent commission to meet the incidental expenses.

An area of 7,280 hectares is proposed to be covered by this scheme during the plan period. About one lakh farmers will be benefitted by this scheme.

Seed mixtures of grasses and legumes of suitable varieties will be distributed to farmers at 100 percent subsidised cost, during the first two years (1981-82 and 1982-83) and at 50 per cent subsidy there after for plots upto a maximum of 50 cents each. During the Plan period 1980-85 a total area of 4700 hectares will be brought under this scheme. The sale of the seeds will be undertaken by the dairy co-operatives who will be given 5 per cent commission for meeting their handling and distribution charges. The scheme will benefit about 70,000 farmers.

It is proposed to encourage the farmers to cultivate quick maturing fodder crops in rotation with tapioca by providing subsidy towards the cost of seeds. An area of 1,600 hectares will be covered by the scheme during the plan period. It is proposed to subsidise fully the cost of seeds during the entire period, since this is a new practice which the farmers may hesitate to adopt without any incentive. About 20,000 farmers will be benefitted by this scheme.

### 3. *Fodder Seed Farm and Certified Seed Production*

The projects grouped under seeds and fodder are mainly to produce and provide inputs for the fodder development in the form of fodder seeds of high yielding grasses and legumes. A fodder seed farm is being established with the assistance of the Swiss Government, under the Indo-Swiss Project agreement. The foundation seeds produced in the seed farm are multiplied through certified seed producers and distributed to the dairy farmers. The provision is for meeting expenditure on the seed farm, certified seed production and promotion.

### 4. *Scheme for Conservation of Fodder on Silage, Hay-making in Forest Grass lands and Fortification of paddy straw using Urea, Starch and Molasses.*

Natural grasses and cultivated fodder found in surplus during monsoon can be conserved profitably as silage for feeding livestock during the lean summer months. So it is necessary to popularise silage making in Kerala also. It is proposed to give subsidy for construction of silopits at the rate of Rs. 1000 per 10 tonnes capacity of silage making. Further, it is intended to provide subsidy at the rate of Rs. 25 per tonne of silage made, to meet the handling charges. It is proposed to give subsidy for constructing 240 silopits covering 2400 tonnes of silage to be made during the next four years.

It is intended to give subsidy to milk co-operative societies for maintaining natural grasslands for making hay for distribution among the members. Subsidy at the rate of Rs. 350 per hectare will be given to the societies towards the cost of fertiliser as well as handling charges for hay making. Subsidy will also be given for the acquisition of hand baling units for the above purpose. It is targeted to cover an area of 900 hectares during the plan period.

It is possible to enrich paddy straw by alkali treatment and fortification with urea, starch and molasses. Feed grade urea is used for this purpose. The scheme is intended to subsidise the cost of urea used for fortification which can be incorporated at 1 to 1.5 percent by weight of the straw. It is proposed to give subsidy for the fortification of 3000 tonnes of paddy straw during the next four years, as a promotional measure.

### 5. *Fodder Banks*

Milk Co-operative societies will be encouraged to set up fodder Banks to take advantage of the seasonal surplus of fodder during harvest season which can be procured at cheaper rates for the benefit of its members. Subsidy for the construction of stores for stocking paddy straw, hay, etc., as well as interest subsidy for working capital requirements for setting up fodder banks will be given to the societies under this scheme. According to this scheme, a society will be eligible for a subsidy of not more than Rs. 10,000 for the above purposes. Subsidy under the scheme will be extended to 100 milk societies during the next four years.

### 6. *Organisational and Administrative Set up for Fodder Development (Seed Production, Promotion and Extension) in K.L.D and M.M Board and Dairy Development Department*

Presently the production of fodder seeds and its marketing is one of the functions of the Kerala Livestock

Development and Milk Marketing Board and the fodder extension activities in the State are undertaken by the Dairy Development Department. The Kerala Livestock Development and Milk Marketing Board has to strengthen its staff for undertaking the production of fodder seeds through certified seed growers and market the same, through the Dairy Development Department, Co-operative Societies and other agencies. Similarly, the increased targets set for fodder cultivation during the Sixth Plan can be achieved fully by strengthening the organisational set up for fodder extension activities under the Dairy Development Department. The outlay proposed is to meet the expenditure on additional staff for fodder development under the two departments.

## VI. *Others*

### 1. *Tribal Area Sub Plan*

#### (a) *Scheme for Free Distribution of Milch Cows*

Under the scheme it is proposed to give subsidy for the distribution of cross-bred milch cows to the tribal beneficiaries and to construct cow sheds free of cost for housing the milch cows. Each beneficiary will be given one cross-bred cow costing not more than Rs. 2500. It is proposed to distribute 250 highyielding cross-bred cows among the tribals during the plan period.

#### (b) *Training of Tribals in Dairy Production*

The tribals are mostly illiterate and are ignorant of modern cattle rearing practices. It would be necessary to impart training to the tribal families on modern dairy farming and milk production practices. The scheme envisages selection of young couples belonging to the tribal families who will be able to assimilate modern practices better and train them in modern dairy farms attached to the Universities or Dairy Training Institutes for a period of not less than six months. It is proposed to train 50 tribal couples during the next four years.

### 2. *Assistance to Dairy Co-operatives*

Milk procurement in the State has been organised mainly on co-operative lines. The primary milk co-operatives in the State are by and large financially weak and hence require assistance for their development into viable units. Therefore, the societies are now assisted by giving subsidy for the purchase of milk cans, milk testing equipments and office furniture, appointment of qualified staff, construction of office building-cum-milk collection room, working capital grant etc. In addition to these types of assistance, it is proposed to give subsidy to the societies for allowing interest rebate to their members for prompt repayment of loans. It is also proposed to provide for subsidy under the N.C.D.C. scheme for the acquisition of vehicles to the co-operative societies/Unions. Altogether 2990 milk co-operatives will be covered by this scheme.

### 3. *Investment and Loans to K.L.D. & M. M. Board (Milk Marketing)*

The dairies and chilling plants will continue with the K.L.D. and M.M. Board at least for a period of another 2 years. The provision now proposed is for a minimum investment on these dairies.

4. *Special Component Plan for Scheduled Castes.*(a) *Inter Cropping of Fodder in Coconut Gardens*

The farmers belonging to scheduled castes will be encouraged to set up fodder plots as well as pastures in coconut gardens or other available lands belonging to them. It is proposed to give free planting materials as well as seed mixtures of grasses and legumes to the scheduled caste beneficiaries for fodder plots upto a maximum of 50 cents per beneficiary. Subsidy in kind as fertiliser will also be given for the fodder plots at the rate of Rs. 1000 per hectare for three years to these beneficiaries. According to this scheme, it is proposed to cover about 200 hectares of fodder plots for the benefit of scheduled castes.

(b) *Assistance to Scheduled Castes for Taking Shares in Dairy Co-operatives*

Although the Scheduled castes form nearly 10 percent of the population in Kerala, their membership in dairy co-operatives is negligible. In order to

encourage the scheduled castes to join the dairy co-operatives and to reap the benefits flowing out of the programmes like Operation Flood II, it is proposed to give assistance to the scheduled castes and scheduled tribes for taking shares in dairy co-operative societies at the rate of Rs. 9 per share, the value of one share being Rs. 10. The balance of Rupee one will be met by the beneficiary himself. Under this scheme, each beneficiary will be eligible for subsidy for taking not more than two shares.

(c) *Scheme for Free Distribution of Cross-Bred Cows and Construction of Cattle Sheds*

Under this scheme it is proposed to give subsidy for the distribution of cross-bred milch cows to the scheduled castes and to construct cow sheds free of cost for housing the milch cows. Each beneficiary will be given one cross-bred cow costing not more than Rs. 2500. During this plan period it is proposed to distribute 500 high-yielding cross-bred cows among the scheduled castes and to construct cattle sheds for these cows.

TABLE 5.9

*Dairy Development—Scheme-wise Outlay*

(Rs. lakhs)

Sl.No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>I. Direction and Administration</b>								
	Dairy Development Staff	..	3.00	1.50	30.00	..	5.00	..
<b>II. Dairy Development</b>								
1	Rural Dairy Extension and Advisory Service and Scheme for Improving Milk Production Potential of Cows and Augmenting Milk Production	7.09	9.00	10.50	92.00	10.00	21.00	4.00
2	Operation Flood II and Project for Milk Production and Marketing with Assistance from Indian Dairy Corporation—State share	..	60.00	..	113.00	113.00	20.00	20.00
3	Production and Supply of Inputs for Cattle Breeding Programme of the KLD & MM Board	53.67	25.00	60.00	350.00	75.00	70.00	20.00
4	State Government Contribution towards Swiss Assisted Dairy Projects in Northern Districts	..	1.00	..	5.00	5.00	1.00	1.00
5	Production of Buffalo Frozen Semen	..	1.00	1.00	6.00	4.00	2.00	1.60
6	Herd Book Organisation	..	1.00	0.20	12.00	3.00	2.00	0.70
7	Quality Control Programme	..	..	..	25.00	15.00	12.00	11.00
<b>III. Fluid Milk Plants</b>								
	Milk Supply Schemes—Calicut, Cannanore and Palghat	17.21	17.70	17.70	20.00	20.00	2.30	2.30
<b>IV. Education and Training</b>								
1	Training of Personnel	0.54	1.00	1.00	10.00	..	2.00	..
2	Dairy Training Centre	..	..	..	20.00	7.50	5.50	4.50
3	Training to Scheduled Castes/Scheduled Tribes in Dairying	..	..	..	1.50	..	0.20	..

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>V. Feeds and Fodder Development</b>								
1	Improvement to Sewage Farm, Valiathura	3.10	3.70	3.70	10.00	5.00	3.00	1.50
2	Inter cropping of Fodder in Coconut Gardens—Cultivation of Catch Crops in rice fallows—Cultivation of Grass Legume Mixture and Quick Maturing Fodder Crops in Crop Rotation	4.27	4.50	4.21	50.50	..	10.00	..
3	Fodder Seed Farm and Certified Seed Production	3.50	6.00	6.00	45.00	6.00	10.00	1.00
4	Scheme for Conservation of Fodder on Silage, Haymaking in Forest Grass lands and Fortification of paddy straw using urea, starch and molasses	..	0.60	..	9.00	..	2.00	..
5	Fodder Banks	..	..	..	8.50	..	1.50	..
6	Organisational and Administrative set up for Fodder Development (seed production, promotion and extension) in KLD & MM Board and Dairy Development Department	1.73	2.00	2.00	27.00	1.50	7.50	0.70
<b>VI. Others</b>								
1	Tribal Area Sub Plan							
	(a) Scheme for Free Distribution of Milch Cows	..	3.00	3.00	10.00	..	2.00	..
	(b) Training of Tribals in Dairy Production	..	..	..	2.50	..	0.50	..
2	Assistance to Dairy Co-operatives	3.97	6.50	6.50	59.00	..	11.50	..
3	Investments and Loans to KLD & MM Board (Milk Marketing)	44.05	25.00	..	40.00	40.00	20.00	20.00
4	Special Component Plan for SCs.							
	(a) Intercropping of Fodder in coconut Gardens	..	..	..	5.00	..	1.00	..
	(b) Assistance to Scheduled Castes for taking Shares in Dairy Co-operatives	..	..	..	5.00	..	1.00	..
	(c) Scheme for Free Distribution of Cross Bred Cows and Construction of Cattle Sheds	..	10.00	..	20.00	..	5.00	..
	Total Dairy Development	139.13	180.00	117.31	976.00	305.00	218.00	88.30

## Fisheries

In the past plan periods there has been little emphasis on the development of the traditional fishing sector. Therefore it is necessary that the traditional sector should be exposed to a new horizon of outlook and development. To achieve this objective the fishermen who inhabit over 265 fishing villages along the coast of Kerala have to be brought under a village development programme. There will be on an average 120-130 traditional craft and 500 fishermen per fishing village. Available data suggest that 50-60 per cent of the fishermen have not much of an investment in fishing equipment. They are actually employed as wage earners on the traditional craft, the share of the crew in the total sale proceeds of the catches being two-third. If they are made to own the craft their income could easily be enhanced. Attempts will be made during the Plan period to set up fishermen village organisations at village level, covering all active fishermen, head load and cycle load fish distributors and net makers belonging to the fishermen family.

As the village organisations are set up it would be possible to enforce proper distribution of fish in the

local and hinterland regions. The marketing of fish should be taken over by the village societies and organised through a system of regulated markets run by the society.

The Department of Fisheries and the Fishermen Welfare Corporation can provide the organisational leadership as well as capital and technical aid required for the growth and development of fishing village economy. The Corporation can take up a number of welfare programmes like construction of housing colonies and supply of drinking water by making use of institutional finance.

The Fisheries Development Programme during the plan period 1980-85 envisages an outlay of Rs. 29.59 crores. As a result of this investment in fisheries sector it would be possible to raise the fish production to 5.38 lakh tonnes (4.98 lakh tonnes of marine fish and 0.40 lakh tonnes of inland fish) in 1984-85 from the present level of 3.54 lakh tonnes (3.29 lakh tonnes of marine fish and 0.25 lakh tonnes of inland fish).

Brief description of the schemes proposed under fisheries is given below:—

#### *Direction and Administration*

##### (i) *Strengthening of Administration including Planning and Statistical Cell*

The administrative set up in the Directorate of Fisheries requires considerable strengthening to take up the envisaged development activities during the Sixth Plan period. The proposed provision is for thorough overhauling of the administration in general and strengthening of the Planning and Statistical Cell in the Directorate. A part of the outlay is to meet the expenses connected with the sample surveys of fishermen in selected fishing villages.

#### *Extension Programmes*

##### (i) *Extension*

The proposal is to build up a full-fledged publicity and information system under the Extension Wing so that the technological developments can be disseminated to the benefit of fishermen. This is highly necessary in view of the new approach for fisheries development envisaged through fishermen village societies at the grass-root level. The Unit will undertake extension work like audio-visual education, publicity, seminars and exhibitions.

#### *Fish Farms*

##### (i) *Fish Seed Farms*

The Department has already initiated action to construct six fish seed farms one each at Polachira in Alleppey District, Parappanangadi in Malappuram District, Kuttiyadi in Kozhikode District, Alwaye in Ernakulam District, Pallom in Kottayam District and Kanjiyar in Idukki District. The provision is to complete the construction of these farms and organise two more seed farms during the Sixth Plan period.

##### (ii) *Composite Fish Culture*

The scheme envisages organising composite fish culture in 300 hectares of ponds, Government will provide all the inputs in kind during the first year, half of the inputs during the second year and one-third during the third year. The balance input requirements from the second year onwards shall be met by the fish farmer. The provision envisaged is to meet the Government share of expenditure.

##### (iii) *Brackish Water Fish/Prawn Culture, including Survey of Inland and Brackish Water Resources*

The State has extensive brackish water areas suitable for fish/prawn culture. The scheme envisaged is to survey the inland and brackish water resources and organise prawn culture in the brackish water areas. The proposal is to cover 1500 hectares during the plan period. In order to ensure supply of prawn seeds, the Department has started construction of a hatchery at Azhikode. The production of prawn larvae has already been commenced at the centre. It is proposed to organise two more hatcheries in the State to augment prawn seeds supply for prawn culture. The main components of the project are production of adequate prawn seeds, identification and selection of

suitable brackish water areas, construction of prawn farms, supply of inputs, cultural operations, harvesting and marketing. Part of the outlay is intended for renovation and maintenance of existing brackish water fish farms as model fish farms.

##### (iv) *Fish Farmers' Development Agency*

This is a Centrally Sponsored Scheme under which the State and the Centre will share the expenditure equally. The outlay envisaged is for continuance of the scheme already under implementation in Palghat, Trichur and Quilon Districts.

#### *Hatchery*

##### (i) *Fish Seed Production*

The scheme envisages fish seed production at the reservoir heads to meet the fresh water fish seed requirements. The target proposed is 35 million fish fry.

##### (i) *Research Assistance to Kerala Agriculture University for Inland Fisheries Research including setting up of a Fisheries College.*

The Plan provision is intended for providing financial assistance to the Kerala Agriculture University for carrying out applied fishery research in inland fish culture and for setting up a Fishery College with provision for pre-Degree course also.

##### (ii) *Establishment of Market Research Unit.*

Already a market survey has been initiated by the Department through the Cochin University during 1979-80. The programme is to complete the survey as well as establishment of a Market Research Unit in the Department during the Plan period. The market research unit shall have to undertake a series of market studies including maintenance of a system of market intelligence service. This is all the more important for organising regulated market for fish.

#### *Education and Training.*

##### (i) *Strengthening of Fishermen Training Centres and Establishment of Regional Fisheries Technical High Schools.*

The Department has now three Regional Fisheries Technical High Schools, one each at Trivandrum, Ernakulam and Cannanore. The Plan programme is to set up a Regional Fishery Technical High School in each of the marine districts in the State, with provision for six new schools. Part of the outlay is also intended for strengthening the existing Fishermen Training Centres in the State.

##### (ii) *Training to Pisciculturists*

In view of the fact that the State Government is initiating fish/prawn culture on a massive scale during the Sixth Plan period, it is imperative that necessary training is imparted to prospective pisciculturists. The proposed outlay is for meeting the expenses required for implementing the scheme.

(iii) *Inservice course for Fisheries Personnel.*

The Plan provision is for organising specialised orientation course for the benefit of departmental personnel as well as for establishing a Fisheries Management Technical Institute with a view to training personnel recruited for manning the Village Societies envisaged in the State.

*Inland Fisheries.*(i) *Development of Reservoir Fisheries.*

This scheme is to extend fish culture in reservoir fisheries from 6,751 hectares to 9,000 hectares during the Plan period.

(ii) *Patrolling in Backwaters and Development of Small Water Areas.*

The outlay envisaged is for constructing one inland fish landing platform at Cheriakadavu in Quilon District and to construct two patrolling boats to check illicit fishing in backwaters.

(iii) *Mariculture of Mussels and Pearls.*

The Department has been running two pilot projects at Vizhinjam, one for culture of pearls and the other for culture of mussels during the last five years. The programme envisaged during the Sixth Plan period is to extend mussel culture over 20 selected fishing villages duly transferring the technology of mussel culture to the fishermen so as to augment production of protein-rich mussels and income of fishermen. The pearl culture project will be continued in a rephased manner on commercial lines with suitable collaboration. Both the projects are highly labour-intensive. Being productive, institutional finance can also be mobilised for implementing the projects.

(iv) *Organisation of Kerala Inland Fisheries Corporation.*

It is proposed to organise an Inland Fisheries Corporation for the development of inland fisheries availing institutional finance. The outlay provided is for registration and equity participation of the Corporation.

*Fishing Harbours and Landing facilities*(i) *Engineering Wing.*

It is proposed to convert the post of Chief Mechanical Engineer in the Department of Fisheries to that of a Civil Engineer for assisting the Fisheries Project Cell in the preparation of Fisheries projects

(ii) *Development of Vizhinjam Fishing Harbour*

The programme envisaged is extension of the existing breakwater, construction of a leeward breakwater dredging of the basin, construction of quay and auction hall etc. The total cost of the second stage of the project is estimated at Rs. 700 lakhs. This is a Centrally Sponsored Scheme for which 50 per cent central assistance is expected.

(iii) *Development of Neendakara Fishing Harbour.*

It is proposed to construct a fishing harbour at Neendakara, providing berthing and landing facilities for mechanised fishing boats which number about 1,500. A project report has already been prepared in this context and forwarded to Government of India for sanction. The cost of the project which stood at Rs. 250 lakhs is now re-estimated at Rs. 370 lakhs. This is also a Centrally Sponsored Scheme for which 50 per cent assistance will become available from the Centre.

(iv) *Fishery Terminal Organisation.*

It is proposed to establish fishery terminal organisations to manage fishing harbours, including provision of servicing, regulation of traffic, repair facilities, sanitation, fish auctioning, and processing units. The plan provision envisaged is to provide these facilities at Baliapattam, Vizhinjam and Neendakara.

(v) *Development of fish Landing Centres.*

During the Plan period it is proposed to provide landing facilities for small mechanised boats in a number of places along the coast of Kerala. The programme envisaged is to construct 21 fish landing centres during the Plan period with 50% Central assistance. The proposed centres are:—

- |                |                   |
|----------------|-------------------|
| 1. Manjeswar   | 12. Ponnani       |
| 2. Kasaragode  | 13. Munakkakadavu |
| 3. Bekal       | 14. Chettuvali    |
| 4. Nilswar     | 15. Munambom      |
| 5. Cheruvathur | 16. Andhakar Azhi |
| 6. Palacode    | 17. Valanjavazhi  |
| 7. Dharamadam  | 18. Purakkad      |
| 8. New Mahe    | 19. Thottappally  |
| 9. Iringal     | 20. Kayamkulam    |
| 10. Puthiyappa | 21. Muthalapozhi  |
| 11. Keettingal |                   |

*Offshore Fishing and Deep Sea Fishing.*(i) *Offshore Fishing*

The proposal envisages introduction of 13.4 m. boats for exploiting offshore pelagic fisheries. The Government will give a subsidy of Rs. 50,000 per unit and a soft loan of Rs. 40,000. The units will be introduced availing institutional finance.

(ii) *Deep Sea Fishing and Tuna Fishing.*

The programme aims at introducing combination vessels and tuna fishing vessels to exploit the offshore resources of the Exclusive Economic Zone within the 200 mile limit. A joint venture company is proposed to be registered with foreign collaboration and the vessels will be purchased by utilising funds from the Shipping Development Fund or from funds made available by the Agriculture Ministry of the Government of India. The outlay is to meet the equity participation and State share of expenditure for implementing the scheme. Part of the outlay will be for the purchase of vessels for marine patrolling.

### *Processing, Preservation and Marketing*

#### (i) *Storage, Processing and Marketing including Cold Chain and Large Fish Markets.*

The plan outlay includes provision (Rs. 10 lakhs) for meeting the spill-over requirements of Baliapattam ice plant and for establishing a new ice-cum-freezing plant at Vizhinjam.

The Cold Chain component of the scheme (Rs. 20 lakhs) contemplates mopping up the supplies and making them available in deficit areas and in deficit season. The cold chain system is essential to store the fish meant for distribution in the hinterland region.

It is also proposed to construct three large fish markets in the Corporation areas of Trivandrum, cochin and Kozhikode. The outlay envisaged for this is Rs. 12 lakhs. Assistance from Municipal Corporations is also anticipated for the construction of the large fish Markets.

#### (ii) *Village Infrastructure Facilities including Link Roads and Guide Lights.*

The Plan provision is for completion of two spill-over projects started as infrastructure schemes at Amabalpuzha and Cheruvathur, and also for providing necessary infrastructure facilities in selected coastal fishing villages. The outlay is for providing roads, drinking water, environmental sanitation, guide lights etc.

#### (iii) *Organisation of Regulated Markets.*

It is proposed to organise in a phased manner regulated marketing of fish through the fishermen village societies proposed to be organised at the village level. Initially pilot markets will be set up in a few villages. Based on the working of these markets, the programme will be extended to more villages. Necessary legal support will also be ensured. Primarily the village societies will take on auctioning of the fish catches under the system of regulated markets and ensure the fishermen better prices as well as freedom from exploitation by the middlemen.

### *Mechanisation and Improvement of Fishing Crafts.*

#### (i) *Small Boat Mechanisation*

The Sixth Plan programme is to complete the package schemes taken up at Tanur, Cheruvathur, Karunagapally, and gill net scheme at Vizhinjam, besides continuing the three A.R.D.C. Projects at Parappanagadi, Puthiyappa and Anjengo and the Special Package Scheme at Vypeen. The outlay set apart also includes provision for insurance and repair charges of boats issued under Mechanisation Programme and introduction of gill netters by availing of Bank finance. The proposed target is 150 mechanised boats during the Sixth Plan period.

### *Others.*

#### (i) *Assistance to Traditional Fisheries (Supply of Catamarans and Canoes, Engines and Fibreglass Craft)*

The plan scheme envisages issue of catamarans, dug-out canoes, plank-built canoes of wood and fibreglass craft through availing institutional finance. It is

also proposed to issue suitable out-board engines to fishermen to mobilise traditional craft. The scheme will be implemented through Kerala Fishermen's Welfare Corporation.

#### (ii) *Repair and Refitting Facilities*

The plan provision is for meeting the spill-over works at Baliapattam.

#### (iii) *Rehabilitation of Fishermen Families at Vizhinjam and Subsidised Housing Programme*

The Fishermen's Welfare Corporation has drawn up a massive programme for constructing 25,000 houses for the benefit of indigent fishermen and fifty per cent of the cost is to be provided by Government as grant. A scheme has also been drawn up for rehabilitating 2000 fishermen families from Vizhinjam. The outlay is for meeting the Government share of the investment required for the subsidised programme and rehabilitation of the fishermen at Vizhinjam. Part of the outlay is intended for covering the spill-over works of the Housing Grant Scheme operated by the Department

#### (iv) *Dispensaries*

The Plan provision is for completing spill-over works of dispensary buildings and to construct new dispensaries.

#### (v) *Assistance to Fishermen Co-operative Societies*

The amount provided in the Plan is for revitalising the Regional Fish Marketing Co-operative Societies.

#### (vi) *Organisation of Village Societies*

The Producer Fishermen Co-operatives in the State are mostly defunct and are beyond the scope of revival. Consequently an organisational vacuum is being experienced in the fishing villages. In order to ensure a proper linkage between the fishermen in the fishing villages and Government, it is proposed to set up a fishermen village organisation at the grass-root level (one Fishermen Village Society for each fishing village). All active fishermen in the village as well as headload and cycle load fish distributors and net makers in the fishermen families will be members of the village society. All inputs such as fishing equipment, credit, marketing and organisational inputs and welfare measures shall be routed through the Village Society. Necessary legal support will also be ensured for the organisation of village societies. The provision is for organising fishermen village societies, covering all marine fishing villages and inland fishing villages during the Sixth Plan period.

#### (vii) *Fishermen Welfare Fund including Relief Measures, Financial Assistance for Marketing of Fish, Insurance and Debt Relief*

It is proposed to provide a package of welfare measures such as distress relief to fishermen, old age benefits, and expenditure on death and marriage ceremonies. A part of the outlay is also intended for extending financial assistance to small scale fish distributors for undertaking marketing of fish. Government have also conceived a programme of providing benefits

of social insurance to cover fishermen who die while fishing in the sea or in the inland waters by paying an amount of Rs. 10,000 to each affected family.

In order to relieve the burden of indebtedness of fishermen which ranges between Rs. 1,500 and Rs. 2,500 per family it is proposed to extend to fishermen the benefit of debt relief assistance in view of the fact that the fish catches are proposed to be marketed through the fishermen village societies and it would be possible for the fishermen to repay the dues regularly from the sale proceeds of the fish catches. Part of the provision envisaged is intended for meeting the State share of the expenses.

(viii) *Subsidiary Industries*

It is proposed to organise subsidiary industries of fishermen such as basket making and coir making for augmenting their employment opportunities and income.

(ix) *Assistance to Kerala Fisheries Corporation*

The provision is for rendering financial assistance to the Kerala Fisheries Corporation for organising deep sea fishing and fish marketing activities during the Plan period.

(x) *Assistance to Kerala Fishermen's Welfare Corporation*

The outlay is for organising the activities of the Kerala Fishermen's Welfare Corporation.

(xi) *Land acquisition charges for the rehabilitation of displaced families from the Cochin Fishing Harbour Area*

The fishermen who have been evicted for the construction of the Cochin Fishing Harbour are to be resettled. The amount provided is for meeting the balance payment for the land acquired for re-settling the fishermen.

(xii) *Establishment of Aquarium*

This Plan scheme envisages establishment of a marine aquarium at Cochin.

TABLE 5.10  
*Fisheries—Scheme-wise Outlay*

(Rs. lakhs)

Sl. No.	Name of the Scheme/Project*	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved outlay	Anticipated expenditure	Proposed outlay	Capital Content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>I. Direction and Administration</b>								
	Strengthening of Administration including Planning and Statistical Cell	2.86	3.00	3.00	45.00	5.00	6.90	1.00
<b>II. Extension</b>								
	Extension	2.65	2.00	1.50	15.00	..	3.00	..
<b>III. Fish Farm</b>								
1	Fish Seed Farms	8.04	9.00	9.00	50.00	45.00	10.00	8.00
2	Composite Fish Culture	1.20	3.50	3.50	15.00	..	4.00	..
3	Brackish Water Fish/Prawn Culture (including Survey of Inland/Brackish Water Resources)	3.91	14.00	10.75	31.75	25.00	7.00	4.50
4	Fish Farmer's Development Agencies	3.20	3.00	3.00	15.00	..	3.00	..
<b>IV. Hatcheries</b>								
1	Fish Seed Production	..	..	..	10.00	5.00	3.00	1.50
<b>V. Research</b>								
1	Assistance to Kerala Agriculture University	..	2.00	2.00	5.00	..	2.00	..
2	Establishment of Market Research Unit	0.60	0.50	0.50	5.00	..	0.50	..
<b>VI. Education and Training</b>								
1	Strengthening of Fishermen Training Centres and Establishment of Regional Fisheries Technical High Schools	10.64	10.00	10.00	125.00	90.00	20.00	12.00
2	Training to Pisci-Culturists	..	..	..	2.00	..	0.50	..
3	Inservice Course for Fishery Personnel	0.01	0.40	0.05	5.00	..	1.00	..



	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>VII. Inland Fisheries</b>								
1	Development of Reservoir Fisheries	5.30	5.00	5.00	20.00	5.00	5.00	1.00
2	Patrolling in Backwaters and Development of Small Water areas	2.25	2.50	2.50	6.50	1.50	2.50	0.50
3	Mariculture of Mussels and Pearls	3.29	3.50	3.50	40.00	..	5.00	..
4	Inland Fisheries Corporation	..	5.00	5.00	20.00	20.00	5.00	5.00
<b>VIII. Fishing harbours and Landing Facilities</b>								
1	Engineering Wing	0.64	0.50	0.50	2.50	..	0.50	..
2	Development of Vizhinjam Fishing Harbour	46.03	72.00	72.00	307.00	307.00	75.00	75.00
3	Development of Neendakara Fishing Harbour	0.07	20.00	20.00	185.00	185.00	30.00	30.00
4	Fisheries Terminal Organisation	..	..	..	15.00	..	1.50	..
5	Development of fish Landing Centres	0.01	7.00	7.00	100.00	100.00	10.00	10.00
<b>IX. Off-shore Fishing and Deep Sea Fishing</b>								
1	Off-shore Fishing	0.01	8.00	8.00	80.00	..	15.00	..
2	Deep Sea Fishing and Tuna Fishing	..	2.00	2.00	100.00	100.00	10.00	10.00
<b>X. Processing, Preservation and Marketing</b>								
1	Storage, Processing and Marketing including Cold Chain and Establishment of Large Fish Markets	1.69	7.00	5.00	42.00	30.00	10.00	6.00
2	Village Infrastructure Facilities including Link roads and Guide Lights	23.64	32.50	31.50	260.00	235.00	60.00	50.00
3	Organisation of Regulated Markets	..	0.50	0.50	5.00	..	1.00	..
<b>XI. Mechanisation and Improvement of Fishing Craft</b>								
1	Small Boat Mechanisation	19.00	30.00	40.00	100.00	70.00	25.00	20.00
<b>XII. Others</b>								
1	Assistance to Traditional Fisheries (Supply of Catamarans and Canoes, Engines and Fibre Glass Fishing Craft)	20.00	9.00	9.00	135.00	25.00	20.00	3.00
2	Repair and Refitting Facilities	1.10	1.00	1.00	5.00	2.50	0.50	0.25
3	Rehabilitation of Fishermen and subsidised Housing including Families at Vizhinjam	86.79	105.00	135.00	450.00	250.00	110.00	65.00
4	Dispensaries	2.08	8.00	8.00	30.00	30.00	10.00	10.00
5	Assistance to Fishermen Co-operative Societies	17.56	2.00	2.00	3.00	..	1.00	..
6	Organisation of Village Societies	..	2.00	5.00	145.00	..	10.00	..
7	Fishermen Welfare Fund (including Relief Measures, Financial Assistance for Marketing of Fish, Insurance and Debt Relief)	30.00	74.00	74.00	394.00	..	71.00	..
8	Subsidiary Industries	..	..	..	10.00	..	2.00	..
9	Assistance to Kerala Fisheries Corporation	56.00	7.00	7.00	35.00	35.00	7.00	7.00
10	Assistance to Kerala Fishermen's Welfare Corporation	20.00	8.00	8.00	140.00	140.00	28.00	28.00
11	Land Acquisition Charges for the Rehabilitation of Displaced Families from the Cochin Fishing Harbour Area	0.64	..	..	0.50	0.50	..	..
12	Establishment of Aquarium	..	0.10	0.10	5.00	5.00	0.10	0.10
<b>Total—Fisheries</b>		<b>369.21</b>	<b>460.00</b>	<b>494.90</b>	<b>2959.25</b>	<b>1711.50</b>	<b>576.00</b>	<b>347.83</b>

## Forests

The objectives of planning in forestry in the past have been building up of economic forest plantations in less productive regions and stepping up of the infrastructure facilities for exploiting the forest produce to the optimum level. A distinct policy to maintain the present extent of the forest area in tact and a programme to develop and utilise the forest resources to the optimum level were included in the State's Fifth Plan. The latter was to be achieved through the creation of more and more forest plantation, effective management, improvement of logging and timber extraction practices, provision of adequate roads and buildings and promotion of forest research. The strategy for raising forest plantation on a massive scale involved setting up of a Forest Development Corporation in the State sector. For providing necessary research and development support a Forest Research Institute was also established. During the Sixth Plan period emphasis will be laid on proper maintenance of existing forest areas, strengthening of forest based industries and adoption of an aggressive forest policy as recommended by the National Commission on Agriculture. Maximum area will be brought under forest plantations.

Development of social forestry programmes like farm forestry, extension forestry, reforestation of degraded forests, recreation forestry and afforestation of special sites will also be given importance during the Plan period. An Integrated Development Project involving teak forests and wood based industries with World Bank assistance will be launched.

The Schemes proposed for 1980-85 Plan are given below:—

### 1. Forest Research

Forest Department has a Silvicultural Research Division to carry out routine research and field trials such as nursery trials, species trials, introduction of exotic cultural and tending methods etc. This organisation arranges for collection of teak and other seed for supply outside the State, after testing their quality. The Plan provision is to meet the expenditure on staff and equipment for a seed testing laboratory, establishment of a Teak Museum, Research Centre and for field trials undertaken by Eucalyptus Fungus Investigation Unit and other works.

### 2. Education and Training

The Plan provision is to meet the expenditure towards the cost of training programmes for various categories of staff, including award of studentship, scholarship etc.

### 3. Inventory Planning, Resources Development and Utilisation Survey Demarcation and Settlement of Forest Area

To conserve forest resources and to maintain forest boundaries it is necessary to survey and demarcate the boundary of the Forests by erecting cairns along the boundaries. Essential maps are also to be prepared dividing the Forest into blocks and compartments. The provision is to meet the expenditure in this connection.

### 2. Forest Resources Survey

Only two-thirds of the forest area has been covered by Preinvestment Survey. The rest of the area was surveyed by the Resource Survey party. This was done before 1972 and there is urgent need for revision. For this purpose a Resources Survey Division is to be established. The outlay proposed is for meeting the expenditure, in connection with the creation of this Division. As, updating of plantation and other maps after resurvey has to be carried out continuously, provision is also intended for a small cartography unit.

### 3. Working Plans

In order to improve the efficiency and quality of work turned out by the Working Plan Division, the equipments being used by different Working Plan Divisions have to be substituted by more sophisticated and modern ones. The Plan provision is for this purpose.

### 4. Cultural Operations

A number of older plantations of various species need cultural operations particularly special tending. The outlay is for meeting the expenses involved for cultural operations.

### 5. Mechanised Logging, Extraction and Marketing of Timber

The Plan provision is for forming an organisation for extraction, supply and distribution of timber, fuelwood and other forest produce. It also provides for expenditure connected with land acquisition for stocking timber, training of workers in logging operation etc.

### 6. Development of Forest Based Industries

This scheme is for establishing two wood based integrated industrial complexes. Each complex will consist of a saw mill, seasoning plant, treatment plant, a joinery, furniture unit, chipper mill, particle board unit and a decorative veneer unit. This scheme also includes the project proposed to be established at Nilambur for planting 42,000 hectares with teak and for setting up an Integrated Wood Industry Complex of sawmill, plywood factory, fibre plant, furniture unit etc.

### 7. Development of Minor Forest Produce

This scheme is for the maintenance of cardamon plantations under the Department. Considering the scope for increasing the production of minor forest produce, cultivation of fodder, regeneration of canes etc., are some of the developmental activities that are envisaged under the scheme.

### Organisation and Institutions

#### 1. Intensification of Forest Management

The volume of work both in the field and offices has gone up as a result of the acceleration of developmental activities. It is essential to have smaller units for management in intensively worked areas or areas vulnerable to encroachment. The provision is for appointing additional staff, purchase of equipment etc.

## 2. Kerala Forest Development Corporation

Kerala Forest Development Corporation aims at raising 20,000 hectares of fast growing species, 2000 hectares of soft wood, 500 hectares tea and 2000 hectares cardamom plantations. The provision is for giving share capital contribution to the Corporation to take up these activities.

### Infrastructure Development

#### 1. Communications

The provision is for constructing 450 km of new roads and for improving 400 km of existing roads. Construction of 15 bridges and 500 culverts in the forest areas is also envisaged.

#### 2. Buildings

The programme is to construct building complex to accommodate offices at headquarters of the forest circles at Calicut, Trichur and Quilon. Provision is also intended to construct Forest Inspection Bungalow in forest areas of Trichur, Malayattur, Thenmala, Ranni, Thekkady, Neyyar and Achencoil in a phased manner. Priority will also be given to construct about 530 staff quarters for the field staff such as Foresters and Guards.

#### 3. Engineering Wing

The outlay proposed is for additional staff and for purchase of necessary machinery and equipments for the engineering wing that was sanctioned to the Forest Department for effective implementation of communication and construction of buildings taken up by the Department.

### Production and Social Forestry

#### Production Forestry

##### 1. Plantation of Economically Important Species

Forest Department will be raising plantations of various species in 22,360 hectares. The provision is for planting expenses, for construction of quarters for the staff and development of roads within the plantation areas.

##### 2. Plantation of Fast Growing Species

The Sixth Plan programme is to raise plantation of quick growing species. The provision is to meet the establishment charges and planting expenses.

##### 3. Sandalwood Plantation

The Plan provision is to meet the planting expenses and to carry out cultural operations in the existing sandalwood areas. It is also proposed to bring additional area under sandalwood plantation.

##### 4. Wattle Plantation

It is proposed to raise wattle plantation in grasslands in Munnar Division. The provision is to meet the expenditure connected with the planting work, cultural operation and for the construction of roads for the implementation of the scheme.

## 5. Regeneration of Evergreen Forests

The scheme is to improve the yield of valuable timber species suitable for plywood and other industries from evergreen forests. Tending operations are to be carried out to induce generation of the valuable species and to do cultural operations to favour the existing regeneration and augment natural regeneration. The provision is to meet the expenditure in connection with this work.

### Social Forestry

#### 1. Formation of an Extension Forestry Organisation

The scheme is for setting up an Extension Forestry Wing in the Department for effective realisation of the objectives of social forestry programmes. This organisation will be responsible for supplying suitable planting materials and imparting necessary technical guidance wherever needed. It will also maintain an effective liaison between the Department and the public regarding the social forestry activities.

#### 2. Farm-Forestry-cum-Fuelwood Plantations

In order to encourage homestead forestry it is proposed to distribute 15 lakh seedlings of timber match-wood, fuel, fodder species, fruit and ornamental trees free of cost. It is also proposed to raise fuelwood plantation in an area about 2800 hectares to meet the requirement of fuel wood in the urban areas. The provision is to meet the expenditure for the scheme.

#### 3. Extension-Forestry—Raising of Mixed Plantations

The scheme is to raise mixed plantations outside reserve forests under social forestry. This scheme which was implemented under centrally sponsored scheme will now have been transferred to the State sector.

#### 4. Reforestation of Degraded Forests

The scheme is for the reforestation of degraded forest of over 3100 hectares during the plan period with species like pines, eucalyptus, albizia and acacias. This scheme was also a centrally sponsored scheme now transferred to State sector.

#### 5. Recreation Forestry

It is proposed to create recreational and tourist facilities at places such as Neyyar, Ponnudi, Adirappally, Munnar, Thunacadavu and Wynad by opening of nature parks and nature trails, picnic spots, arranging guided tours, taking up construction of bridle paths, development of road side parks and camping grounds at selected places along National Highways during the Sixth Plan period.

#### 6. Afforestation of Special Sites

It is proposed to plant trees along the reservoir fringes in Neyyar and Idikki to prevent soil wash into the lake and resultant silting of reservoirs. Necessary provision is made in the Plan.

### Plantation Crops

#### 1. Cashew Plantation

The outlay proposed is for raising new cashew plantation by the Forest Department and also for replacing diseased and dying cashew trees in the plantation area with new plantations.

#### 2. Package Programme for Cashew.

This scheme aims at augmenting the stock of seedlings manuring weak plants and spraying against pests and diseases in the cashew plantations of the Forest Department.

#### 3. Supplemental Crops Plantations.

It is proposed to cultivate pepper and medicinal plants as inter crops in thinned teak plantations and in softwood plantations. The provision made is for meeting the planting cost, equipments, additional staff, maintenance of roads, construction of quarters etc.

### Wild Life and Environmental Conservation

#### 1. Development of National Park—State Share

According to the Government of India guidelines work has been initiated for organising a wild life sanctuary in the State. The administration of wild life will cover (a) all the seven sanctuaries in the State, (b) forest areas outside the sanctuaries (c) areas other than forest and (d) the crocodile farms. A safari park is also proposed to be opened. Construction of a snake park at Malampuzha will be taken up and completed. Works on maintaining and improving the crocodile breeding centres at Neyyar and Pillaperuvannamala-varam will be taken up. A separate scheme of protection of the endangered species of lion tailed macaque will be launched. The provision is for the expenditure involved in this scheme, and also to meet the matching contribution for the centrally sponsored scheme under wild life.

#### 2. Protection of Forests

The scheme is to ensure better protection of reserve forests, effective checking of illicit transport of forest

produce and efficient management of check posts. The provision is for additional staff, construction of checking stations, purchase of equipments etc.

#### 3. Fire Protection

The plantations raised by the Department have to be protected against fire by engaging firewatchers and clearing fire lanes etc. The provision is for this purpose and also for the fire depot cum training centre at Kulamavu which is being set up with the assistance of New Zealand.

### Others

#### 1. Planning and Statistical Cell

The plan provision is for meeting the expenditure on staff and equipment for improving the statistical base of the forestry sector.

### Public Relations Unit

#### 2. Forest Publicity

The provision is for strengthening forest publicity wing at the Headquarters and in each circle with necessary staff and equipment and such as projectors, films, exhibition vans etc. for field publicity. The unit will produce pamphlets, folders and books and will participate in exhibitions and conduct short-term course for school teachers on nature conservation and forestry.

#### 3. Amenities to Labour and Tribal Welfare

The Plan outlay is for providing essential amenities like improvements to tribal colonies, schools, wells and storsheds and dispensaries. Development of communications leading to the tribal settlements is also proposed as a part of this scheme.

#### 4. Tribal Co-operative Societies for collection of Minor Forest Produce—Grant-in-Aid

The scheme proposed is for providing financial assistance to tribal cooperatives for collection of minor forest produce.

TABLE 5.11

### Forests—Scheme-wise Outlay

Sl. No.	Name of Scheme/Project	(Rs. lakhs)						
		1979-80 Actuals	1980-81		1980-85		1981-82	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Research</i>								
1.	Forest Research	3.93	9.00	8.00	54.00	20.00	10.00	4.00
<i>Education and Training</i>								
2.	Training & Education of Staff	5.47	7.00	7.00	45.00	8.00	8.00	1.00

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Inventory Planning &amp; Resources Development and Utilisation</i>								
3. Survey, Demarcation and Settlement of Forest Areas	2.70	7.00	7.00	45.00	25.00	7.00	3.00	
4. Forest Resources Survey	..	1.50	1.50	20.00	4.00	2.00	0.50	
5. Working Plans	..	0.50	0.50	10.00	3.00	1.00	..	
6. Cultural Operations	14.49	8.00	..	92.00	..	14.00	..	
7. Mechanised Logging and Extraction, Supply and Distribution of Timber, Fuelwood and Other Forest Produce	0.21	0.50	..	3.50	..	0.50	..	
8. Development of Forest Based Industries	..	0.50	..	3.50	..	0.50	..	
9. Development of Minor Forest Produces	3.50	1.00	..	31.50	10.00	5.00	1.00	
<i>Organisation and Institutions</i>								
10. Intensification of Forest management	..	4.00	4.00	32.00	..	4.00	..	
11. Kerala Forest Development Corporation	..	1.00	1.00	5.00	..	1.00	..	
<i>Infrastructural Development</i>								
12. Communications	15.40	28.00	28.00	293.00	293.00	40.00	40.00	
13. Construction of Buildings	7.83	27.00	27.00	264.00	264.00	30.00	30.00	
14. Engineering Wing	4.04	7.50	7.50	63.50	16.00	10.00	3.00	
<i>Production Forestry</i>								
15. Plantation of Economically Important Species Special Component Plan	35.35	36.50	36.50	355.50	172.50	52.00	28.00	
	..	7.00	7.00	..	..	..	..	
16. Plantation of Fast Growing Species Special Component Plan	6.31	7.20	7.20	59.00	59.00	10.00	10.00	
	..	0.80	0.80	..	..	..	..	
17. Sandal wood Plantations	0.07	1.00	1.00	12.50	12.50	1.50	1.50	
18. Wattle Plantations	1.18	1.50	1.50	15.50	15.50	2.00	2.00	
19. Regeneration and Improvement of Evergreen Forests	6.83	4.00	..	43.00	23.00	6.00	3.00	
<i>Social Forestry</i>								
20. Formation of an Extension Forestry Organisation	..	4.00	4.00	44.00	6.00	5.00	1.00	
21. Farm Forestry cum Fuel wood Plantation Special Component Plan	10.96	11.70	11.70	178.00	74.00	20.00	12.00	
	..	1.30	1.30	..	..	..	..	
22. Extension Forestry-Raising of Mixed Plantation	2.06	4.00	4.00	37.00	18.00	4.00	2.00	
23. Reforestation of Degraded Forests—Development of Social Forestry	3.05	3.00	3.00	13.00	8.00	2.00	1.00	
24. Recreation Forestry	0.36	2.00	2.00	27.00	27.00	3.00	3.00	
25. Afforestation of Special Sites	1.21	0.50	0.50	7.50	7.50	1.00	1.00	
<i>Plantation Crops</i>								
26. Cashew	4.76	2.00	2.00	24.00	24.00	3.00	3.00	
27. Package Programme for Cashew Plantation	3.16	5.00	5.00	49.00	..	6.00	..	
28. Supplemental Crops (Vanalakshmi Schemes)	4.93	16.00	16.00	79.00	60.00	11.00	7.00	
<i>Wild Life and Environmental Conservation</i>								
29. Development of National Park—States share	..	2.50	2.50	205.00	140.00	35.00	22.00	
<i>Protection of Forests</i>								
30. Forest Production	15.56	10.00	10.00	155.00	25.00	25.00	3.00	
31. Fire Protection Special Component Plan	14.96	19.00	19.00	135.00	20.00	20.00	3.00	
	..	1.00	1.00	..	..	..	..	
<i>Others</i>								
32. Planning and Statistical Cell	3.52	4.50	4.50	36.50	..	5.50	..	
33. Forest Publicity—Public Relations Unit	3.98	6.00	6.00	59.50	15.00	10.00	3.00	
34. Amenities to Labour and Tribal Welfare	0.89	10.00	10.00	75.00	75.00	12.00	12.00	
35. Tribal Co-operative Societies for Collection of Minor Forest Produce—Grant-in-aid	..	2.50	2.50	8.00	8.00	3.00	3.00	
<b>Total—Forests</b>	<b>190.41</b>	<b>285.00</b>	<b>285.00</b>	<b>2580.00</b>	<b>1433.00</b>	<b>370.00</b>	<b>203.00</b>	

The total outlay includes provision made for the schemes (1) Teak Museum and (2) Wild Life Management and Conservation

## Investment in Agricultural Financial Institutions

In order to enable the Kerala Co-operative Central Land Mortgage Bank Limited to mobilise resources from institutional financial agencies for the implementation of various agricultural development

programmes, the State Government would have to give necessary support by way of matching contribution. The provision includes State Government support for debentures to be floated by Kerala Cooperative Central Land Mortgage Bank Limited during the Sixth Plan period.

TABLE 5.12

### Investment in Agricultural Financial Institutions--Scheme-wise Outlay

Sl. No.	Name of Scheme/Project	1979-80 Actuals	(Rs. in lakhs)					
			1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
1.	Kerala Co-operative Central Land Mortgage Bank—Purchase of Debentures	150.00	150.00	150.00	1100.00	1100.00	150.00	150.00

## Community Development and Panchayats

The Community Development Programme was started in the State in 1952., to stimulate rural development. At present there are 144 development blocks covering the entire area of the State excluding the municipal areas. A number of development activities are carried out through them. The Blocks are functioning as the implementing agencies of SFDA and IRDP. The Panchayats implement programmes of local development with people's participation and help propagate the idea of planning at the grass-root level. The major schemes proposed for implementation under Community Development and Panchayats are given below.

### A. Community Development and Panchayats

#### 1. Special Programmes for Rural Poor

This scheme is to be implemented on the pattern of centrally sponsored Integrated Rural Development Programme. The main objectives of the scheme are generation of additional employment and raising of the income levels of the identified 'target groups'. The outlay provided in the Plan is for extension work, technical guidance, supply of inputs, marketing support etc.

#### 2. Community Development Programme.

##### (i) Agriculture

It is proposed to give assistance in kind such as seeds, seedlings etc. to the weaker sections for raising kitchen gardens. It is also intended to introduce intensive farm development programmes and other scientific cultivation methods among the farmers.

##### (ii) Minor Irrigation

This scheme is meant for extending minor irrigation works and giving grants to individual farmers for purchasing pumpsets, digging wells, constructing tanks etc.

##### (iii) Animal Husbandry

Expansion of the activities like poultry keeping and goat-rearing by giving assistance for construction

of cattlesheds, goat pens etc. to help the rural people generate additional income especially during slack seasons. The proposed plan outlay is for meeting the expenditure on the scheme.

##### (iv) Industries

The outlay envisaged is to meet the expenditure for giving assistance to the rural artisans, village craftsmen etc. Assistance will also be provided to start and manage few village industries.

##### (v) Education

The main activities under the scheme are assistance to organisations like Mahila Samajams, Youth Clubs, Sports Clubs etc., for carrying out their socio-development works and support to other literary and cultural programmes for improving the literary and educational standards of the rural masses.

##### (vi) Health and Sanitation

This scheme is meant for improving the health conditions, environmental sanitation and cleanliness of the weaker sections of the society. Construction of urinals and supply of squatting slabs are the other activities proposed under this scheme. The outlay provided is for meeting the expenditure in connection with the above items of work.

##### (vii) Roads

The outlay under this head is meant for construction of foot bridges, culverts and link roads in villages with people's participation. The entire amount is intended for the benefit of scheduled castes and scheduled tribes and the scheme is having significant employment content.

##### (viii) Strengthening of Block Administration

The outlay is for meeting the administrative expenditure, strengthening of staff and providing training facilities to the Blocks with a view to increase their efficiency and skill. It is also proposed to strengthen the Block machinery at various levels.

### 3. *Extension- Strengthening of Supervisory Machinery for Women Workers*

This scheme aims at strengthening the supervisory machinery for women workers. The outlay is for meeting the expenditure towards the pay and allowances of the co-ordinator/special officer and district officers of women's welfare. Assistance is also provided for programmes such as nutrition programmes, balawadies etc. benefiting women and children.

### 4. *Demonstration and Training*

The scheme is meant for continuing the training programmes, for the official and non-official functionaries, conducted at the extension training centres.

### 5. *Rural Employment Programmes*

In order to provide full employment to the under-employed and unemployed sections of the population who are prepared to do manual labour, it is proposed to undertake the following schemes.

#### (i) *Development of Rural Roads under C.D. Blocks.*

This scheme is transferred from the head of development 'Roads & Bridges' to 'Community Development and Panchayats'. The emphasis under the scheme is construction of approach roads to Harijan and Girijan colonies and Fishermen's areas. The material component of the programme is 40 per cent of the estimate and the remaining is the labour component.

#### (ii) *Rural Manpower Programme (Including Construction of Buildings for Primary and Secondary Schools)*

This is a scheme aiming at generating gainful employment opportunities in rural areas. The rational utilisation of the abundant manpower available in rural areas for building durable community assets and directing the manpower to appropriate channels of production constitute the programme content of the scheme. Construction of buildings for Government schools—both primary and secondary—will also be taken up. It is expected to generate 20 lakh mandays of employment during the Plan period (4.5 lakh mandays in 1981-82). The proposed outlay is for meeting the expenditure in connection with the above activities.

#### (iii) *National Schemes for Training of Rural Youth for Self Employment (TRYSEM)*

The Scheme 'Training of Rural Youth for Self Employment' (TRYSEM) is a comprehensive training scheme for the rural youth in various economic activities in agriculture, dairy development, cottage industries, carpentry etc. The training is mainly intended for marginal farmers, agricultural labourers, rural artisans and other persons who remain below the poverty line. TRYSEM was sanctioned for implementation in November 1979 with the State level steering committee on IRDP at its apex level.

#### (iv) *Employment Generation Schemes*

This Scheme is transferred from the head of development 'Labour and Labour Welfare.' The State Government has launched an employment generation scheme in 1979-80 with a view to provided productive employment to the chronically unemployed in the State. It is proposed to utilise the services of

unemployed youth for minor irrigation works, road development, land development, afforestation works etc. and to undertake programmes like popularising family welfare programmes, collection of basic statistical data relating to the rural economy etc. There are some additional schemes too, which will generate employment like (i) opening retail outlets in panchayats known as Kerala stores', (ii) providing employment through rural industries programmes of Kerala Khadi and Village Industries, (iii) Scheme for self-employment to graduate engineers and (iv) removal of salvinia from paddy lands, irrigation channels and waterways of Kuttanad region. The outlay proposed for this scheme is to undertake the above mentioned programmes. Central assistance is anticipated for this scheme.

#### (v) *Grants to Panchayats*

As Panchayats play a vital role in development administration it is proposed to implement a comprehensive seven-point programme in all the panchayats in the State mainly to augment their developmental activities. This will help the improvement of panchayat roads, minor irrigation channels, pre-primary educational institutions, burial grounds etc. The plan outlay earmarked for this scheme will be utilised to provide grants to panchayats for the above items of work.

### 6. *Employment Assistance*

The State Government has launched an employment assistance scheme under which assistance will be provided to chronically unemployed persons who are aged between 18 and 40 years and whose names are in the Live Registers of Employment Exchanges in the State for three consecutive years. The family income of the eligible unemployed persons should not exceed Rs. 4000 per annum. Each unemployed person will be given assistance at the rate of Rs. 50 per mensem. The employment assistance scheme is envisaged as a complement of the employment generation schemes indicated above. When more and more employment opportunities are created under the employment generation schemes, the number of job seekers in the live registers of Employment Exchanges is likely to show a decline. Consequently there will be a lesser demand on financial assistance under this programme in due course of time. An outlay of Rs. 75 crores has been proposed for this programme in the Plan. Recognising this scheme as a nationally important programme the centre is expected to share a major part of the financial burden of the scheme.

### 7. *Training Institutions in Local Administration.*

The outlay for this scheme is to meet the establishment charges and expenditure on buildings for training institutes which impart training to the official and non-official staff of panchayat administration. The implementation of the programme will contribute to efficient administration of the local bodies.

### 8. *Publication of Panchayat Raj Journal*

The Panchayat Raj Journal is a monthly publication intended to convey information on the progress and achievements in the socio-cultural and development activities of the panchayats. This journal helps to propagate the idea of planning and mass co-operation among the rural population.

9. *Loans to Panchayats*

This scheme is for providing loans to panchayats for the creation of remunerative community assets in panchayat areas. Construction of market stalls, shopping centres, waiting sheds etc. will be undertaken. For these purposes loans will be sanctioned by the Government on the basis of the recommendations of the panchayats.

10. *Environmental Amenities for the Poor.*

This scheme is for providing living amenities like drinking water supply, power, sanitation, approach roads etc. to the rural population, especially the beneficiaries of 'one lakh housing scheme'. The Harijan and Girijan colonies are badly in need of these amenities. The outlay will be utilised for providing the aforesaid amenities.

B. *Rural Development Board.*(i) *Remunerative Development Schemes.*

Under this scheme it is proposed to provide assistance to the Rural Development Board for the construction of shopping centres, market stalls, lodging houses, office building etc. These works are undertaken by the Board through the PWD on specific requests from the panchayats in the locations recommended by them. After the completion of construction they will be handed over to the panchayats.

(ii) *Rural Water Supply Scheme (I.C. Aided)*

The Rural Water Supply Scheme is implemented by the Rural Development Board with the aid of L.I.C. According to the pattern of assistance 50 per cent of the cost is to be met by the L.I.C. and the remaining 50 per cent by the State Government. The outlay is to meet the State Government's share.

TABLE 5.13

## Community Development and Panchayats- Schemewise Outlays

(Rs. lakhs)

Sl No.	Name of Scheme	1979-80	1980-81		1980-85		1981-82	
		Actual Expenditure	Approved Outlay	Anticipated expenditure	Outlay proposed	Capital content	Outlay Proposed	Capital content
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>A. Community Development and Panchayats</b>								
1.	Special Programme for the Rural Poor SFDA Programmes in Non-SFDA Districts	37.00	97.00	55.20	135.00	..	34.20	..
	Do. Special Component Plan for SCs & STs.	..	..	13.80	90.00	..	22.80	..
2.	Community Development Programmes							
(i)	Agriculture	10.00	4.50	4.50	45.00	..	4.00	..
	Special Component Plan for Scheduled Castes & Scheduled Tribes	..	0.50	0.50	10.00	..	2.00	..
(ii)	Minor Irrigation	10.00	5.67	5.67	30.00	..	4.50	..
	Special Component Plan for Scheduled Castes & Scheduled Tribes	..	0.63	0.63	5.00	..	1.00	..
(iii)	Animal Husbandry	9.00	4.05	4.05	30.00	..	4.00	..
	Special Component Plan for Scheduled Castes & Scheduled Tribes	..	0.45	0.45	10.00	..	2.00	..
(iv)	Industries	1.00	0.90	0.90	5.00	..	1.00	..
	Special Component Plan for Scheduled Castes & Scheduled Tribes	..	0.10	0.10	1.00	..	0.20	..
(v)	Education	9.00	12.00	12.00	67.00	..	10.70	..
	Special Component Plan for Scheduled Castes & Scheduled Tribes	..	..	..	13.00	..	2.30	..
(vi)	Health and Sanitation	0.80	0.40	0.40	3.00	..	0.50	..
	Environmental Sanitation—Special Component Plan for Scheduled Castes & Scheduled Tribes	..	0.40	0.40	3.00	..	0.50	..
(vii)	Roads—Special Component Plan for Scheduled Castes & Scheduled Tribes	2.00	1.00	1.00	10.00	..	2.00	..
(viii)	Strengthening of Block Administration	6.50	6.50	6.50	35.00	..	6.50	..
	Sub-Total (2)	48.30	37.10	37.10	267.00	..	41.20	..
3.	Extension—Strengthening of Supervisory Machinery for Women Workers	0.50	0.50	0.50	3.00	..	0.50	..
4.	Demonstration and Training	2.20	2.20	2.00	12.00	..	2.50	..



	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
5. Rural Employment Programme								
(i) Development of Rural Roads under C.D Blocks *		189.50	60.00	60.00	1000.00	1000.00	200.00	200.00
(ii) Rural Manpower Programme (including Construction of Buildings for Primary and Secondary Schools)		23.00	21.50	21.50	130.00	..	30.00	..
(iii) National Scheme for Training of Rural Youth for Self-Employment		..	10.00	10.00	50.00	..	10.00	..
(iv) Employment Generation Schemes** (including Special Component Plan)		400.29	534.01	500.00	} 3820.00	..	1000.00	..
(v) Grants to Panchayats ** (including Special Component Plan)		..	1000.00	200.00				
Sub-Total (5)		423.29	1565.51	731.50	5000.00	1000.00	1240.00	200.00
6. Employment Assistance †		..	..	..	7500.00	..	1500.00	..
7. Training Institutions in Local Administration		2.00	4.00	2.00	25.00	25.00	12.00	10.00
8. Publication of Panchayat Raj Journal		2.00	1.00	1.00	10.00	..	3.00	..
9. Assistance to Panchayat Raj Institutions--- Loans to Panchayats		10.00	10.00	10.00	125.00	..	20.00	..
10. Environmental Amenities to the Poor		..	50.00	100.00	300.00	100.00	60.00	..
Special Component Plan for Scheduled Castes/Scheduled Tribes		..	50.00	..	200.00	..	40.00	..
11. Publication of the Monthly Journal "Grama Bhoomi"		.001	0.40	..	..	..	..	..
B. Rural Development Board								
(i) Remunerative Development Schemes	}	55.00	60.00	100.00	885.00	885.00	165.00	165.00
(ii) Rural Water Supply Schemes (L.I.C. aided)				110.00	573.40	573.40	164.50	164.50
Total--Community Development and Panchayats		769.79	1938.01	1223.10	15125.40	2583.40	3305.70	539.50

\* Transferred from the head of development--"Roads and Bridges".

\*\* Only 50 percent of the total outlay, being the state share, is shown.

† The outlay includes Special Central Assistance.

## Co-operation

5.2. Under the Sixth plan efforts will be made to transform Co-operative movement into a self-reliant one by augmenting resources through the mobilisation of savings in the rural and urban areas and lesser dependence on resources from outside agencies. The co-operative system will be oriented to promoting integrated rural development by strengthening the links between credit, supply of agricultural inputs, marketing, processing and distribution of essential commodities. The co-operatives of miscellaneous types will be promoted to help the weaker sections of the community to expand their traditional business as well as to start new ventures for self-employment. The consumer co-operatives will be equipped to follow better business practices in the selection of commodities, procurement, supply, sales promotion etc. The Credit Co-operatives will be made the principal agency for dispensing credit for agricultural and allied purposes as also for productive non-agricultural purposes. The Co-operatives are expected to meet about 60 per cent of the total agricultural credit requirement by the end of the Plan period. The co-operative marketing structure will also be suitably strengthened. The scheme for reorganisation of Harijan and Girijan Co-operative societies will be implemented more vigorously. The various schemes proposed in the Plan under Co-operation are given below:-

## Direction and Administration

The Estimate Committee on Co-operation has recommended among other things, a thorough reorganisation of the Department of Co-operation on a functional basis for more effective implementation of Plan schemes and statutory duties such as inspection, supervision and audit of accounts of co-operatives etc. The outlay proposed in the Plan is for meeting a part of the cost of Departmental Officers proposed to be appointed under the re-organisation scheme and the cost of officers already appointed in P & M Cell, Inspection Cell and Audit Wing in the Head Office.

## II Credit Co-operatives

### (A) Long Term Operation Financed Schemes

The loaning programmes proposed to be achieved by the end of the Sixth Plan period is Rs. 170 crores under short term credit, Rs. 50 crores under medium term credit and Rs. 36 crores under long term credit. In order to sustain the loaning programme, the share capital base of the co-operative banks has to be strengthened so as to enable them to command adequate borrowing capacity. The provision is for the payment of share capital contribution to the District Co-operative Banks, Primary Agricultural Credit Societies, Kerala

Co-operative Central Land Mortgage Bank, Primary Land Mortgage Banks and Urban Co-operative Bank under Long Term Operation Fund of the Reserve Bank of India.

(B) *Other Schemes relating to Co-operative Credit Societies.*

1. *Managerial assistance and Other Support Programmes.*

The outlay proposed in the Plan is for the payment of managerial assistance and also to meet the cost of promotional activities and extension support for the rehabilitation of weak co-operative credit institutions at the base level. The provision will also be utilised for the diversification of activities especially in the field of marketing and processing programmes taken up by the primary credit institutions.

2. *Interest Free Loans to Harijans/Girijans and interest subsidy on Agricultural Loans and Loans for Self-Employment purposes and Interest Subsidy to Small Farmers.*

The Scheme for payment of interest subsidy at the rate of 3 per cent on the loans given to the members for agricultural and self employed purposes will be continued during the Sixth Plan period. It is also proposed to waive the interest on loans to small and marginal farmers for agricultural purposes prior to 1-4-1976 and outstanding as on 31-3-1980. Similarly interest on loans given to Harijans/Girijans will be subsidised in full by the State Government. The provision is to meet the expenditure for implementing the above schemes.

3. *Outright Grant for Special Bad Debt Reserve Fund/Risk Fund*

The provision in the Plan is to create a Special Bad Debt Reserve Fund/Risk Fund at the District level to meet any unforeseen contingency that may arise in the ordinary course of transactions of credit co-operatives at the base level. The idea is to modify the existing scheme to cover more institutions and purposes.

4. *Incentive Grant for Mobilisation of Deposits.*

The provision made in the Plan is for giving grant as incentive to primary credit societies to augment their resources by deposit mobilisation. It is also proposed to formulate a credit guarantee scheme to protect the interest of depositors of primary agricultural credit societies which are not coming under the purview of Banking Regulation Act.

5. *Agricultural Credit Stabilisation Fund.*

The Plan provision is for meeting 50 per cent State contribution to this Centrally Sponsored Scheme for the year 1980-81. As it has now become 100 per cent Centrally assisted scheme, no provision is made for the remaining period of the Sixth Plan.

III *Housing Co-operatives*

The outlay proposed in the Plan is for payment of managerial assistance to primary housing Co-operatives and subsidy for technical staff of the Housing Federation.

IV. *Labour Contract Co-operatives*

1. *Managerial Subsidy*

The Plan provision is for giving managerial assistance to 50 labour contract co-operative societies during the Sixth Plan period.

2. *Share Capital Contribution*

The Plan outlay is for payment of share capital contribution to 50 labour contract co-operative societies.

V. *Farming Co-operatives*

The Plan outlay under the scheme is for giving share capital contribution, loan-cum-subsidy for the construction of office-cum-godown, managerial subsidy and subsidy for the purchase of farm implements and inputs to the joint farming and collective farming societies during the Plan period.

VI. *Storage, Warehousing, Marketing Co-operatives*

1. *Subsidy for Construction of Godowns*

It is programmed to construct 345 rural godowns for primary agricultural credit societies, 28 marketing godowns for marketing co-operatives and 40 godowns for tribal co-operatives during the plan period with N.C.D.C. assistance. The outlay proposed is for meeting the subsidy portion of the cost of construction of godowns by the State Government.

2. *Share Capital Contribution to Marketing Processing Co-operatives and Credit Co-operatives, undertaking Marketing/Processing Activities.*

As lack of linkage between credit and marketing is a serious problem in the development of agriculture, efforts will be made to strengthen the existing marketing and processing co-operatives at different levels and also to organise new co-operatives wherever necessary. Weak units will be rehabilitated. Agricultural credit societies will be encouraged to take up marketing activities also. The provision made in the Plan is for the payment of share capital contribution to the marketing and processing societies for expansion of marketing activities and also to the primary agricultural credit societies which take up marketing activities.

3. *Price Fluctuation Fund*

The outlay proposed is for giving Government contribution towards the special price fluctuation fund of marketing and processing co-operatives.

4. *Managerial Assistance and Other Incentives to Primary Marketing Cooperative and Primary Agricultural Credit Societies*

The amount provided in the Plan is to meet the cost of promotional and extension activities proposed to be taken up during the Plan period for the development of marketing co-operatives. The provision includes managerial subsidy also.

## VII Processing Cooperatives

### *Share Capital Contribution to Processing Co-operatives*

For the establishment of new processing units or rehabilitation of existing ones, NCDC provides 65 per cent of the block cost by way of loan and balance cost is to be met by the State Government and the concerned society. The outlay is for giving the State Government's share portion of assistance towards the establishment of 16 new processing units and for spill over schemes. Outlay also includes basic share capital contribution to marketing co-operatives for undertaking processing activities.

## VIII. Consumer Cooperatives

### 1. *Managerial Subsidy and Other Incentives*

The plan provision is to give assistance to consumer and credit cooperatives to take up the promotional and extension activities so as to increase and improve the business of wholesale stores and primary consumer stores. Under rural consumer scheme the lead and linked societies will also be provided with managerial subsidy, so as to meet the cost of management in the initial stages.

### 2. *Share Capital Contribution*

The provision made for the scheme is to give share capital contribution to State Consumer Federation, wholesale stores and primary stores to strengthen their activities so that they qualify for larger working capital from institutional sources in proportion to the targeted sales during the Plan period.

### 3. *Working Capital Loan to Primary Stores*

Under this new scheme the sick primary stores which are brought under rehabilitation programme will be given working capital loan as interim accommodation till they achieve viability. Loans will be given at concessional rate of interest. The plan provision is for this purpose.

### 4. *Loan-Cum-Subsidy for Purchase of Trucks, Furniture and Fixtures*

The wholesale stores and lead societies implementing the consumer scheme will be provided with funds for acquiring transport vehicles for supplies to branches and the linked societies. Consumer stores organising multiroom shops will be assisted by way of loan and subsidy towards the cost of furniture and fixtures. The provision is to meet the expenditure involved under this scheme.

### 5. *Student Stores*

#### (a) *Working Capital Grant and Managerial Subsidy*

The outlay made in the Plan is to give working capital grant and managerial subsidy to school and college cooperatives for promotion and development of student stores.

#### (b) *Central College Cooperative Stores*

The Plan provision is for giving share capital contribution to Central College Cooperative stores,

which undertakes centralised purchase and distributes essential consumer articles needed by student community at reasonable cost.

### 6. *Loan-cum-Subsidy to Lead Societies under Rural Consumer Scheme for Construction of Office-cum-Godown.*

Under the rural consumer scheme, primary societies with retail consumer outlets are grouped together and attached to a lead society to facilitate purchase and distribution of essential articles in bulk. Door delivery of articles will also be undertaken by the lead societies. The Plan provision is to give assistance to the lead societies by way of loan and subsidy for the construction of office-cum-godown for their activities.

## IX. Audit of Cooperatives

The outlay proposed in the plan is for meeting the contingent expenditure towards the publication of Audit Manual and also for meeting the expenditure towards the revision of audit forms audit certificates etc.

## X. Cooperative Education

### 1. *Expansion of Co-operative Training College*

The provision made is for giving grant to Cooperative Training College, Trivandrum, for expansion of its facilities including construction of building, so that it can organise a new inservice course for Cooperative Department and institutional personnel.

### 2. *Grant to Circle Co-operatives Union for Full-time Secretaries*

The outlay is for meeting a portion of the cost of departmental officers working as full time Secretaries in Circle Co-operative Unions.

### 3. *Non Official Education/Seminars/Study Tours/Award of prizes*

The outlay earmarked is for payment of grant to State Cooperative Union for meeting the expenses towards the members' education programme. This includes expenditure towards conducting Seminars on Cooperative education conferences of the Department and study tours, award of prizes etc.

## XI. Research and Training in Cooperation

The outlay set apart under this scheme is for the payment of grant to State Cooperative Union for meeting the expenses towards the Junior Personnel Training Centres, providing grant to State Cooperative Union for the construction of buildings for cooperative training centres, and for meeting the travelling expenses of Departmental Officers deputed for various training courses, refresher courses etc.

## XII. Information and Publicity

The provision made in the Plan is for meeting the capital and revenue expenses involved in the publication of periodicals, pamphlets, consolidated rules and circulars of the Cooperative Department, and also for meeting the cost of additional staff in the publication wing of the Department.

### XIII. Other Cooperatives

#### 1. Financial Assistance to Harijan/Girijan Cooperatives.

The programmes envisaged in the Sixth Plan period include reorganisation of dormant Harijan/Girijan cooperatives into active societies, organisation of such societies in potential areas where Harijan/Girijans are concentrated, strengthening their management and supervision, organisation of Central Tribal Cooperatives one in each Tribal Sub Plan area, organisation of a Federation of Harijan/Girijan Co-operatives etc. Harijan/Girijan Co-operatives will be assisted by way of share grant for taking membership in co-operative Societies. The outlay proposed is for giving assistance to Harijan/Girijan Co-operatives in the form of working capital grants, managerial subsidy, building grant, share capital, Share grant etc.

#### 2. Women Cooperatives

During the Plan period efforts will be made to associate women with the activities of Co-operative institutions as they can play an important role in consumer and marketing co-operatives and also in primary agricultural credit societies for the purpose of deposit mobilisation. The amount provided in the Plan is to meet, the expenditure in connection with setting up of women's wing attached to primary agricultural credit societies and to give financial assistance to women's cooperative societies to expand and diversify their activities.

#### 3. Cooperative Hospitals/Dispensaries

The provision in the Plan is for the payment of share capital contribution, managerial subsidy, loans for construction of buildings and assistance to cooperative hospitals. Co-operative dispensaries will also be provided financial assistance during the Plan period.

#### 4. Implementation of Common Cadre Systems to Employees of Credit Societies

Provision is made for the year 1980-81 only, for implementing the common cadre system to employees

of Kerala State Co-operative Bank and District Co-operative Bank. As these banks are financially sound no contribution from Government for implementing this scheme will be necessary in the subsequent years.

#### 5. Employees Co-operative Societies

The provision is for the payment of managerial subsidy, rent reimbursement subsidy and share capital contribution to Government Employees cooperative societies and other employees cooperative societies.

#### 6. Irrigation Cooperatives

This is a new scheme proposed in the supplementary Plan for 1980-81. The scheme aims at providing water to the holdings of individual farmers from major/minor/lift irrigation projects by constructing field channels. The irrigation societies formed with this objective will construct minor irrigation channels upto the holdings of individual member farmers. Government will provide 50 per cent of the cost as subsidy while the balance cost will be raised by the societies from financial institutions. The plan provision is for implementing the scheme during the Sixth Plan period.

#### 7. Cooperatives Organised for Promotion of Employment.

Cooperatives for the promotion of employment opportunities will be given more importance during the Plan period. Under this scheme managerial subsidy will be provided to Autoriksha and Taxi Drivers Co-operatives and Cooperative Printing Presses, Share capital contribution by way of margin money will be provided to societies like Autoriksha Drivers Cooperatives, Taxi Drivers Cooperatives, Job Workers Cooperatives, Balawadi Cooperatives, Literary Cooperatives, Agro-industrial Cooperatives, Motor Transport Co-operatives, Cooperative Printing Societies, and other miscellaneous types of cooperatives based on viable projects and in accordance with the approved pattern of assistance. The Autoriksha Drivers' Co-operatives will be provided with additional share capital contribution to organise repair workshops. The outlay in the Plan is for giving financial assistance to the above societies.

TABLE 5.14

#### Cooperation—Scheme-wise Outlay

Sl. No.	Name of Scheme	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
<b>I. Direction and Administration</b>								
	Re-organisation of the Department of Co-operation on functional basis—Additional Staff	1.56	10.00	10.00	150.00	..	25.00	..
<b>II. Credit Co-operatives</b>								
(A)	L. T. O. financed Schemes							
	Share Capital Contribution to Credit Co-operatives—L.T.O. Financed Scheme	85.77	145.00	125.00	500.00	500.00	100.00	100.00

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(B) Credit Co-operatives—Other Schemes								
1. Managerial Subsidy for Agricultural Self Employment Loans and Other Improvement Facilities to Base Level Credit Cooperatives		2.08	5.55	12.55	60.45	..	15.00	..
2. Interest free loans to Harijans and Interest Subsidy to Small Farmers		50.00	90.00	90.00	540.00	..	120.00	..
3. Outright Grant for Special Bad Debt Reserve Fund for Financing Weaker Sections (Risk Fund)		1.22	2.00	3.00	206.00	..	58.00	..
4. Incentive Grant for Mobilisation Deposit		7.52	3.60	5.00	55.00	..	7.00	..
5. Agricultural Credit Stabilisation Fund		..	0.50	..	0.50	..	..	..
Total—Credit Co-operatives		146.59	246.65	235.55	1361.95	500.00	300.00	100.00
III. <i>Housing Co-operatives</i>								
Managerial Subsidy to Primary Housing Societies		2.00	5.30	5.30	30.00	..	5.50	..
IV. <i>Labour Contract Cooperative Societies</i>								
1. Managerial Subsidy to Labour Contract Cooperative Societies		0.31	0.20	0.67	2.50	..	0.50	..
2. Share Capital Contribution		0.61	0.30	1.00	5.00	5.00	1.00	1.00
Total—Labour Contract Cooperative Societies		0.92	0.50	1.67	7.50	5.00	1.50	1.00
V. <i>Farming Co-operatives</i>								
1. Share Capital Contribution to Farming Co-operatives		1.10	2.00	2.00	10.00	10.00	2.00	2.00
2. Loan-cum Subsidy for Construction of Office-cum-Godown/ Farm Houses		..	1.00	1.00	10.00	8.00	2.00	1.60
3. Managerial Subsidy to Farming Co-operatives		0.02	0.50	0.50	2.20	..	0.35	..
4. Subsidy for Purchase of Farm Equipments/Inputs		0.43	0.50	0.50	7.00	..	0.65	..
Total—Farming Cooperatives		1.55	4.00	4.00	29.20	18.00	5.00	3.60
VI. <i>Storage, Warehousing and Marketing Co-operatives</i>								
1. Subsidy for Construction of Rural Godowns and Marketing Godowns		4.07	5.00	5.00	45.00	..	10.00	..
2. Primary Marketing Cooperative Society—Share Capital Contribution to Marketing and Processing Co-operatives and Credit Cooperatives undertaking processing activities.		14.91	10.00	10.00	275.00	225.00	59.50	55.50
3. Price Fluctuation Fund		0.01	0.10	0.10	10.00	..	2.00	..
4. Managerial Subsidy to Co-operative Marketing and Processing Cooperatives		1.88	2.00	2.00	20.00	..	4.00	..
Total—Storage, Warehousing and Marketing Co-operatives.		20.87	17.10	17.10	350.00	225.00	75.50	55.50
VII. <i>Processing Cooperatives</i>								
Share Capital Contribution		4.66	5.00	5.00	100.00	80.00	15.00	15.00

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>VIII. Consumer Co-operatives</b>								
1. Managerial Subsidy		4.16	4.50	6.50	44.65	..	12.00	..
2. Share Capital Contribution		31.32	11.50	14.75	105.00	105.00	24.00	25.00
3. Primary Stores—Working Capital Loan		..	..	..	50.00	50.00	12.00	12.00
4. Loan-cum.Subsidy for Purchase of Trucks, Furniture, Fixture etc.		1.27	2.10	2.10	15.00	10.00	4.00	3.00
5. Student Stores		12.16	11.50	11.50	42.10	10.00	12.00	3.00
6. Lead Societies Under Rural Consumer Scheme—Loan-cum Subsidy for Office cum-Godowns		..	..	..	45.00	33.75	4.00	3.75
Total—Consumer Cooperatives		48.91	29.60	34.85	301.75	208.75	68.00	46.75
<b>IX. Audit of Cooperatives</b>								
		..	..	..	5.00	..	1.00	..
<b>X. Co-operative Education</b>								
1. Expansion of Intermediate Co-operative Training College, NCCT, Trivandrum		3.20	5.00	5.00	10.00	..	3.00	..
2. Grant to Circle Cooperative Union for Full Time Secretaries		0.04	2.00	2.00	8.00	..	30.0	..
3. Non-Official Education, Seminars Study Tours and Award of Prizes		2.00	3.00	3.00	9.00	..	3.00	..
Total—Co-operative Education		5.24	10.00	10.00	27.00	..	9.00	..
<b>XI. Research and Training in Co-operation</b>								
1. Junior Personnel Training		1.00	1.00	1.00	9.00	..	2.00	..
2. Higher and Intermediate Personnel Training		0.76	2.00	2.00	10.00	..	2.00	..
3. Junior Personnel Training Centre—Construction of Building		3.00	0.10	0.10	4.00	..	1.00	..
Total: Research and Training		4.76	3.10	3.10	23.00	..	5.00	..
<b>XII. Information and Publicity</b>								
Publication of Periodicals, Journals, Pamphlets, Consolidated Rules/Circulars etc.		0.57	1.00	1.00	5.00	..	1.00	..
<b>XIII. Other Co-operatives/Schemes</b>								
1. Financial Assistance to Hrijans/Girijan Co-operatives		17.19	22.70	22.70	142.00	10.00	20.00	2.00
2. Women's Co-operatives—Financial Assistance		0.45	0.65	0.65	9.55	1.00	3.00	0.50
3. Financial Assistance to Co-operative Hospitals/Dispensaries		2.57	9.70	15.45	60.00	25.00	15.00	12.40
4. Implementation of Common Cadre to Employees of Co-operatives		..	0.05	..	0.05	..	..	..
5. Employees Co-operative—Financial Assistance		0.30	2.20	2.20	8.00	6.00	2.50	1.50
6. Irrigation Co-operatives—Financial Assistance—Scheme Proposed in the Supplementary Annual Plan 1980-81		..	25.00	25.00	100.00	..	25.00	..
7. Financial Assistance to Co-operatives Organised for Promotion of Employment		10.38	12.45	12.45	60.00	45.00	14.50	9.50
Total: Other Co-operatives		30.89	72.75	78.45	379.60	87.50	80.00	25.90
Total: Co-operation		268.52	405.00	406.02	2800.00	1124.25	592.00	247.75

### 5.3 Irrigation.

Though Kerala gets good rainfall, the uneven distribution during the different agricultural seasons and the heavy surface run-offs due to the undulating topography, it is essential to build up irrigation systems to stabilise crop production. Food production in Kerala is hardly 50 per cent of the State's requirements, and therefore irrigation of food crop areas assumes high priority in planning for crop production.

The cultivable area in Kerala is assessed at 23 lakh hectares, of which the economically irrigable wet lands is about 6 lakh hectares. The irrigable garden lands is around 10 lakh hectares. The irrigation potential of Kerala can thus be placed at 16 lakh hectares (net) or 25 lakh hectares (gross). Of this, the area that can be irrigated by major and medium irrigation projects is estimated to be 6 lakh hectares (net) or 14 lakh hectares (gross). As on March 1980, nearly 2 lakh hectares (net) or 3 lakh hectares (gross) has been brought under irrigation with an investment of Rs. 213 crores.

The ten completed projects, viz, Malampuzha, Walayar, Cheerakuzhi, Gayathri, Pothundi, Mangalam, Vazhani, Peechi, Chalakudy and Neyyar have an ayacut of 1.34 lakh hectares and are irrigating a gross area of 1.47 lakh hectares. By March 1980, the eleven on-going projects through partial commissioning of some have added another 1.33 lakh hectares (gross) to the irrigated area in the State. Thus the irrigation potential built up by 1980, stands at 2.8 lakh hectares (gross). It is proposed to complete Pamba, Periyar Valley, Chimoni, Chitturpuzha, Kanhirapuzha, Kuttiadi and Pazhassi irrigation projects, and partially commission Kallada, Muvattupuzha Attappadi and Karapuzha to add during the plan period 2.16 lakh hectares (gross) to the irrigated area. The new schemes Idamalayar, Kuriarkutty-Karappara and Banasurasagar will be partially commissioned to develop 0.12 lakh hectares for irrigation. Thus by the end of 1980-85 the total utilisation of irrigation developed in Kerala by medium and major irrigation schemes will be 5.07 lakh hectares (gross). The total outlay proposed for medium and major irrigation schemes in the Sixth Plan is Rs. 275 crores. Details of the schemes are given below.

#### *On-going Schemes.*

##### 1. *Kallada Irrigation Project.*

The Kallada irrigation project, the biggest multi-purpose project conceived in the State, is estimated to cost Rs. 176 crores and will benefit an area of 61,600 hectares (net) or 92,800 hectares (gross) in Quilon district and in parts of Alleppey and Trivandrum districts. The project comprises a masonry dam 335 metres long with a maximum height of 78.5 metres across Kallada river in Quilon district to form a reservoir, a pick up weir at Ottakkal 4.6 km. down stream from the dam 118 M. long and 9 M. in height a right bank canal 82.08 km. long, a left bank canal 96 km. long both taking off from the pick up weir and a network of canals. Both wet and drylands are to be irrigated by this project. The project was taken up for execution during the year 1961-62. The area

expected to be benefited by the scheme at the end of 1980-85 Plan is 63,300 hectares (gross). The scheme is expected to attract World Bank funds and will be completed by the Seventh Plan Period. The total expenditure incurred on the project till the end of March 1980 is Rs. 34.30 crores.

##### 2. *Pamba Irrigation Project.*

The project comprises a barrage at Maniyar across Kakkad river, having a length of 115.22 M. and a height of 16.76 M. and a network of canals taking off from the barrage. The project was taken up for implementation during 1961-62. The latest assessed cost of the project is Rs. 43 crores. Till March 1980, an amount of Rs. 28 crores was spent on the project to create an irrigation potential of 28,500 hectares (gross) against an ultimate potential of 41,700 hectares (gross). The outlay proposed is to complete the project by 1983-84 and add 13,200 hectares (gross) additionally.

##### 3. *Muvattupuzha Valley Irrigation Project.*

The project envisages the construction of a dam across Thodupuzha river at Malankara. The canal system consists of a right bank canal 30 km. long, left bank canal 41 km. long and a water distribution system. The project estimated to cost Rs. 37.60 crores envisages the utilisation of the tailrace waters of Idukki Hydro Electric Scheme for irrigating 52,200 hectares (gross) of both wet and dry land lying in the three districts of Idukki, Ernakulam and Kottayam. The project was started in 1975 and up to March 1980, an amount of Rs. 4.77 crores had been invested on the project. The outlay provided is to partially commission the project during this plan period and the expected irrigation potential is 8000 hectares (gross). The project is scheduled for completion during the Seventh Plan period.

##### 4. *Periyar Valley Irrigation Project.*

This project envisages construction of a barrage at Boothathankettu across Periyar river and a system of canals and distributories. This was started in 1956 for irrigating an area of 85,600 hectares (gross) of wet lands in Ernakulam district. The project is estimated to cost Rs. 39.71 crores and till the end of March 1980, an amount of Rs. 25.58 crores has been invested, and an irrigation potential of 49,200 hectares (gross) has been developed. The outlay proposed is to complete the project and add an additional irrigation potential of 33,300 hectares (gross) during the Sixth Plan period.

##### 5. *Chimoni Irrigation Project.*

This project envisages supply of water to 26,200 hectares (gross) of Kole lands and its peripheral lands in Trichur district, at an estimated cost of Rs. 14.41 crores. A masonry dam with an earth dam on the right bank across Chimoni river, a tributary of Karuvannur river forms the head works. No new canal system is contemplated. This project was started in 1975, and the expenditure till March 1980 is Rs. 2.77 crores. The outlay proposed is for completing the project during this plan period to bring 24,200 hectares (gross) of wet lands under irrigation.

#### 6. *Chitturpuzha Irrigation Project.*

The project envisages the remodelling of the existing irrigation system in Chitturpuzha for irrigation of wet lands in Chittur taluk of Palghat district. The proposals comprise replacing the Moolathara anicut by a regulator, reconstruction of Thembra-madakku weir, and remodelling and extension of canal systems. The latest estimate for the completion of the project is Rs. 19.83 crores and it is intended to benefit an area of 32,600 hectares (gross). The implementation of the project was started during the Third Five Year Plan period and an amount of Rs. 9.42 crores had been invested till the end of March 1980. The irrigation potential developed so far is 30,900 hectares (gross). The outlay is to develop irrigation facilities to 1700 hectares (gross) during the Sixth Plan period.

#### 7. *Kanhirapuzha Irrigation Project.*

The project is to construct an earthen dam with a central masonry spillway across Kanhirapuzha, to provide irrigation facilities for an area of 21,900 hectares (gross) in the taluks of Mannarghat, Ottapalam and Palghat at a cost of Rs. 36.17 crores. The project was started in 1961-62, and Rs. 16.32 crores has been invested till March 1980. The outlay provided is for completing the project by 1985 and adding 21,900 hectares (gross) to the irrigated area in the State.

#### 8. *Kuttiadi Irrigation Project.*

The project envisages the construction of a masonry dam across Kuttiadi river at Perivannamuzhi, 13 earth saddle dams for a total length of 1844 M. and a canal system. This project is estimated to cost Rs. 38.56 crores, and will provide irrigation facilities to 31,200 hectares (gross) of paddy lands in Kozhikode, Badagara and Qulandy Taluks. It was taken up for execution in 1962. An amount of Rs. 32.92 crores was spent on the project till the end of March 1980 to create an irrigation potential of 20,700 hectares (gross). The proposed outlay is to complete the project by 1981-82. This will develop an additional irrigation potential of 10,500 hectares (gross) in the northern part of Kerala.

#### 9. *Pazhassi Irrigation Project.*

This project is a diversion scheme across Valappattanam river in Cannanore district. The barrage is situated in Kuilur. The canal system is mainly on the left bank comprising 55 km. of main canal and 133 km. of branches. This project would cost Rs. 42 crores and is intended to irrigate 32,300 hectares (gross) of paddy lands of Kuppam, Baliapatam, Anjarakandy, Tellicherry and Mahe. The project was started in 1962 and till March 1980, an amount of Rs. 23.49 crores has been invested to develop irrigation facilities over an area of 3400 hectares (gross). The outlay proposed in the Plan is to complete the project during this plan period and add 28,900 hectares (gross) to the irrigated area.

#### 10. *Attappadi Irrigation Project.*

This project consists of a masonry dam at Chittur across Siruvani river in Attappadi, and a canal system

to irrigate 8050 hectares (gross) in the tribal area of Attappadi in Palghat district. The project is estimated to cost Rs. 16 crores and was started in 1974. Till March 1980, Rs. 2.49 crores has been invested. The outlay proposed is to bring 4000 hectares (gross) under irrigation by the end of the plan period.

#### 11. *Karapuzha Irrigation Project.*

The project consists of a masonry dam across Karapuzha at Vazhavatta with earth flanking dams on either side, main canals, and a network of distributories. The ultimate irrigation potential that can be developed by this project is 9,300 hectares (gross) in South Wynad taluk of Kozhikode district at a cost of Rs. 12 crores. The project was started in 1971 and till the end of March 1980, an amount of Rs. 2.35 crores has been invested. The outlay proposed is to develop 7000 hectares (gross) under irrigation by the end of the plan period.

#### *New Schemes*

##### 1. *Vamanapuram Irrigation Project (1st Stage)*

The first stage of the project envisages the construction of a dam at Valayanki across Kallar, the tributary of Vamanapuram river, and a network of canal system to irrigate 24,250 hectares (gross) of agricultural land in Trivandrum District. The total estimated cost of the project is Rs. 37.12 crores. Till March 1980, the expenditure on the project was Rs. 12 lakhs. The proposed outlay is to carry out the preliminary works on the project.

##### 2. *Idamalayar Irrigation Project.*

This project envisages the utilisation of the tail-race waters of Idamalayar Hydro-electric Project by diverting the water through the barrage of Periyar Valley Irrigation Project at Planchode into a new canal in the right bank of Periyar. The project would irrigate 52,400 hectares (gross) and the estimated cost is Rs. 22.41 crores. Till March 1980, the expenditure was Rs. 18.47 crores. The outlay is mainly to provide for the irrigation component of the hydro-electric project and to advance the completion of the project at least by the Seventh Plan Period. By the end of the Sixth Plan period 8,000 hectares (gross) will be brought under irrigation.

##### 3. *Kuriarkutty—Karappara Irrigation Project*

This project envisages the utilisation of the tail race waters of Kuriarkutty—Karappara Hydro-electric Scheme. The estimated cost of the project is Rs. 26.85 crores. It will provide irrigation facilities to 11,740 hectares (gross) of wet lands, (paddy lands and sugarcane lands) in Palghat district adjacent to Tamil Nadu. The outlay made in the Plan is mainly to provide for the irrigation component of the hydro-electric project and to develop irrigation facilities in 2,000 hectares (gross).

##### 4. *Beyyorepuzha Irrigation Project*

The proposal is to construct a masonry barrage across Beyyorepuzha at Azhiyakode and to direct the flow to irrigate an area of 11,620 hectares (gross) in



Kozhikode and Malappuram districts. The estimated cost of the project is Rs. 10.61 crores. The proposed outlay is to further the progress of implementation of the project and advance it for completion during the Seventh Plan period.

#### 5. Kakkadavu Irrigation Project

This project consists of a reservoir at Kakkadavu across Karingotta river to irrigate an area of 41,760 hectares (gross) in Cannanore district. The estimated cost of the project is Rs. 26 crores. Till March 1980, the investment on the project has been Rs. 29 lakhs. The outlay proposed in the plan is to expedite the implementation of the project.

#### 6. Meenachil Irrigation Project

So far no irrigation project has been taken up in the Meenachil River basin. The irrigation needs of the basin are met by lift and minor irrigation schemes which serve a portion of the area for two cropping seasons. A storage reservoir can be constructed in the basin at Cherripad and an irrigation potential of 10,000 hectares (gross) can be developed at a cost of Rs. 35 crores. The outlay is for preliminary work on the project.

#### 7. Banasurasagar Irrigation Scheme

The project will irrigate an area of about 4,800 hectares (gross) in Wynad. The project area is predominantly inhabited by Harijans and Adivasis.

A dam is to be constructed across Karamanathodu which is a tributary of Panamaram River, which is a major tributary of Kabani river. The project is estimated to cost Rs. 11.37 crores. The expenditure till March 1980, is Rs. 42 lakhs. The outlay made in the Sixth Plan is to bring 2,000 hectares (gross) under irrigation by the end of the plan period.

#### Advance Action on New Schemes

A large number of projects has been identified for taking up advance action. They are Payaswini, Moolamkadam, Aralam, Manthampuzha, Kurulai, Palakuzhy-Achencoil, Kanhirapuzha II stage, etc. For increasing the State's irrigation potential it is essential to invest on these projects during the ensuing plan periods. The outlay provided is to carry out detailed investigation and preliminary works in the above mentioned projects during the Sixth Plan period.

#### Modernisation of Old Projects

It is proposed to rectify the canal system in the old projects and achieve better utilisation of the water storage by reducing losses to the minimum. The Plan outlay is for this purpose.

#### Investigation and Research

To formulate integrated river valley projects in future, it is necessary to carry out hydrological and meteorological studies and other surveys and collect data about the river basins. The outlay made in the Plan is for these purposes.

TABLE 5.15

#### Irrigation—Scheme-wise Outlay

(Rs. in lakhs.)

Sl. No.	Name of the Project/Scheme	1979-80	1980-81		1980-85		1981-82	
		Actuals	Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	

#### MAJOR AND MEDIUM IRRIGATION

##### (i) Major Schemes

##### A. On Going Schemes

1. Kallada	850.73	1420	1250	12,000	12,000	2500	2500
2. Pamba	404.52	400	400	1500	1500	400	400
3. Muvattupuzha	219.57	305	300	1500	1500	300	300
4. Periyar Valley	402.17	200	350	1250	1250	225	225
5. Chimoni	113.68	200	150	1160	1160	150	150
6. Chitturpuzha & Moolathara	134.64 6.47	94	100	340	340	100	100
7. Kanhirapuzha	365.71	350	350	1510	1510	350	350
8. Kuttiadi	371.14	200	400	560	560	160	160
9. Pazhassi	454.29	400	450	1850	1850	450	450

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>(B) New Schemes</b>								
1. Vamanapuram		11.54	36	30	450	450	40	40
2. Idamalayar		2.47	130	90	1830	1830	125	125
3. Kuriarkutty-Karappara		3.49	50	40	420	420	70	70
4. Beyporepuzha		1.29	70	20	200	200	30	30
5. Kakkadavu		20.16	50	30	200	200	30	30
<b>(ii) Medium Schemes</b>								
<b>(A) On Going Schemes</b>								
1. Attappady		110.04	65	55	375	375	55	55
2. Karapuzha		110.75	110	110	375	375	50	50
<b>(B) New Schemes</b>								
1. Meenachil		0.55	10	10	75	75	10	10
2. Banasuragar		30.00	50	5	25	25	5	5
<b>(iii) Advance Action on New Schemes</b>		..	..	..	775	775	150	Nil
<b>(iv) Other Projects (Modernisation)</b>		43.89	50	50	750	750	140	140
<b>(v) Research Survey and Investigation</b>		37.49	40	40	355	Nil	60	Nil.
<b>Total—Irrigation</b>		<b>3694.59</b>	<b>4230</b>	<b>4230</b>	<b>27500</b>	<b>27145</b>	<b>5400</b>	<b>5340</b>

## Flood Control and Anti Sea Erosion

### Flood Control

The State with a high incidence of rainfall concentrated in a few months of the year has been experiencing floods almost every year. Generally floods occur almost simultaneously in all regions of the State accompanied by land slides in the hills, flooding in the plains and erosion and tidal overflow along the sea coast. The victims of such floods are the poor people living in the hill slopes, and along the river banks. The damages caused by floods to agricultural lands, public property, roads, canals, etc. are very significant. Due to deforestation and silting of river beds, the problems of floods are likely to increase in future unless necessary flood control measures are planned and implemented as a time-bound programme. The outlay provided in this plan is mainly to meet the short range requirements of flood control works in the State and to initiate action on a long range plan of flood control.

As on March 1980, about 65 km. of embankments and 7 km. of drainage channels have been constructed. The total area provided with flood protection is 15,725 hectares. The investment so far has been about Rs. 6 crores. During the Sixth Plan period it is proposed to additionally construct embankments drainage channels, etc. to protect 16,725 hectares more.

The long range outline plan for flood control consists of storage reservoirs, embankments, improvements to river channels and inland drainage system groyne and other protection works, diversions and cut-off etc. This would require an investment of over Rs. 70 crores. The short range plan therefore lays emphasis on the completion of on-going works and protection of river basins which are subjected to serious and frequent floods. The scheme for deepening the leading channel to Thottappally Spillway to relieve

the flood problems in Kuttanad area has been given high priority in the Sixth Plan. It is also proposed to complete the work of improving Amayizhanchanthodu to avoid flood in Trivandrum city. Schemes for effecting better flood drainage facilities to low lying areas of Cochin and Calicut are also included in the Plan. Works on a new cut connecting Keeranallur and Kooraparamba rivers, Onampalam cut etc. are to be taken up during the Plan period. Provision for the purchase of a few dredgers for deepening the river mouths of certain rivers and backwaters for quick discharge of flood waters is made. The scheme included in this plan are listed below.

<i>Name of Scheme</i>	<i>Outlay (Rs. crores)</i>
1. Spill-over works	2.00
2. Identified Schemes on Zonal Basis	
(i) Southern Rivers-Karamana, Neyyar, Vamanapuram, Ithikara and Kallada	0.60
(ii) Kuttanad Rivers—Achencoil, Pamba, Manimala and Meenachil	0.50
(iii) Periyar, Chalakudy and Muvattupuzha	0.30
(iv) Karuvannoor and Keecheri Basins	0.25
(v) Bharathapuzha, Tirur Poorapuzha, Kadalundy, Chaliyar, Beypore and Kallai	0.40
(vi) Northern Rivers—Valapattanam, Kuttiadi, Mahe, Tellicherry, Ancharakandy, Payangode, Chandragiri, etc.	0.70

3. *New Schemes*

(i) Deepening and Widening the Leading Channel to Thottappally Spillway and Allied Protection Works	5.00
(ii) Improvements to River Channels Inland Water Ways, Controlling the Opening of Bars and purchase of Dredgers	2.00
(iii) Measures to Relieve Floods in Low Lying Areas of Cities	1.75
4. Other Schemes such as providing Cut-Offs, Inter-connecting Rivers, Raising Embankments, etc.	0.50
5. Preparation of a Master Plan for Flood Control Works	0.50
6. Repairs and Maintenance of Completed Works	0.50
<b>Total</b>	<b>15.00</b>

*Anti Sea Erosion*

The State has a coast line of 560 km. and a large part of this coast line is subjected to severe erosion at several places during the monsoons. Loss of valuable lands and buildings along the coast line and loss of human life have been the outcome. Sometimes the coast line is subjected to tidal overflow and adjoining low lying lands are submerged resulting in damages to paddy lands and dwelling units and pollution of inland fresh water lakes.

It is estimated that a coastline of nearly 320 km. is subjected to erosion which requires protection. Of this, 250 km. of coast line is subjected to severe erosion. Till March 1980, an amount of about Rs. 40

crores has been spent to protect 227 km. of coast line. Work is in progress over a length of 40 km. Out of the 227 km. of coast line protected, about 70 km. requires reformation and repairs. There are 87 spill-over schemes.

The length of coast line requiring protection within the next decade is about 95 km. Besides, the beaches adjacent to the inlets need stabilisation and areas of head-land bay formation need protection. The outlay for anti-sea erosion made in the Plan is for the above mentioned works. The physical targets envisaged during this period is the protection of a length of 85 km. of coast line and reformation and repairs of about 70 km. sea-wall already constructed. The specific schemes and outlays are given below;

<i>Scheme</i>	<i>Ourlay (Rs. crores)</i>
1. Coast where Sea Walls are under construction--spillover Schemes	11.56
2. 45 km. of coast line requiring new rubble sea wall protection	18.54
3. 70 km. of sea wall requiring reformation and repairs	14.00
4. Stabilisation of inlets and protection of coast adjacent to inlets	1.00
5. Protection at Head-land Bay formation by off-shore breakwaters	1.40
<b>Total</b>	<b>46.50</b>

Of the total investment, Rs. 15.50 crores is to be funded from the State Plan. The balance amount of Rs. 31 crores is to be the special assistance from the Government of India since sea-erosion has to be viewed as a national calamity.

TABLE 5.16

**Flood Control and Anti-sea Erosion—Scheme-wise outlay**

(Rs. in lakhs)

Sl. No.	Name of Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	Flood Control	69.819	75.00	75.00	1500.00	1500.00	250.00	250.00
2.	Anti-sea Erosion	576.351	525.00	525.00	1550.00+ *3100.00	1550.00 *3100.00	300.00+ *600.00	300.00+ *600.00
<b>Total: Flood Control and Anti-sea Erosion</b>		<b>646.170</b>	<b>600.00</b>	<b>600.00</b>	<b>3050.00+ *3100.00</b>	<b>3050.00+ *3100.00</b>	<b>550.00+ *600.00</b>	<b>550.00+ 600.00+</b>

\* Special Assistance from Government of India for Anti-sea erosion works.

## Power

Kerala has invested about Rs. 450 crores till March 1980 in the power sector to harness nearly a third of her identified power generation capability and built up a transmission and distribution system which at present is inadequate to the requirements. During the Sixth Plan period high priority will be assigned to strengthening the transmission and distribution system. A total outlay of Rs. 343 crores is proposed in the State Sector while an amount of Rs. 65.85 crores is expected from external sources. Of the total amount of Rs. 408.85 crores, an amount of Rs. 135.35 crores will be for generation schemes, Rs. 106.50 crores for transmission schemes and Rs. 167 crores for distribution and rural electrification schemes. The scheme-wise details are given below:

### Power Generation Schemes

There are nine completed power generation schemes in Kerala which can generate nearly 5000 mkwh of power. Of these two schemes Sabarigiri and Idukki alone, would account for over 70 per cent of the capacity. As on March 1980, there were five ongoing schemes with an energy potential of over 1600 mkwh. Of this Idukki Stage III, Sabarigiri Augmentation, Idamalayar and Kakkad are scheduled for completion during the Sixth Plan period. Owing to resistance from different angles, Silent Valley Scheme may not be completed during the plan period. The generation capability by the end of the plan period will be 1136.5 MW.

With a 10 per cent annual increase in consumption of power in the State, the power consumption would be 4150 mkwh. The plant capacity built up over the plan period, and the energy availability from this would be sufficient to meet the requirements of the State. With the availability of power from Silent Valley which is expected to be commissioned by the seventh plan period, and the share of power from the super thermal plant in the southern region, Kerala State will be able to meet its internal demand for electrical power.

The new schemes Idukki Stage II, lower Periyar and Kuriarkutty-Karappara, if completed earlier, will be useful to meet the power requirements of the other Southern States and thereby the nation. Therefore the expenditure on these schemes will have to be met through additional financial assistance by the Centre. These power projects would add nearly 670 MW to the plant capacity and build up an additional energy potential of nearly 950 mkwh. Advance action on a large number of other schemes like Mananthavady, Pooyankutty, Kallada, Adirappally, Perinjankutty, Pandiyar-Punnappuzha, Peringalkuthu Right Bank, etc. will have to be taken up during the Sixth Plan period, to make these schemes ripe for investments in the ensuing plan periods. A number of other schemes will also have to be investigated for future action.

The total outlay required for the various power projects during 1980-85 would be Rs. 138 crores, of which the outlay from State Plan funds will be Rs. 71.5 crores. The balance investment will have to be met by additional assistance. The schemes included and the programmes for the Sixth Plan, 1980-85 are given below.

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### Continuing Schemes

#### 1. Idamalayar Project

The Idamalayar Project in the Periyar basin envisages construction of (i) a masonry dam 90 M high above the river bed across Idamalayar, (ii) a power tunnel-5.6 M. diameter and 1566 M long terminating in a surge shaft, (iii) a low pressure pipe tunnel 4.6 M diameter and 144 M long and (iv) two penstocks 3.2 M average diameter and 120 M long, leading the water to a power house with two generating units of 37.5MW each. The firm power potential is 36.5 MW (continuous 20 million units per year). The scheme is estimated to cost nearly Rs. 50 crores. An amount of Rs. 21.3 crores has already been invested in the project till March 1980. An outlay of Rs. 12.67 crores is provided in the Sixth Plan to complete the project. The balance requirement has been shown as share from the irrigation sector for the irrigation component of the Project.

#### 2. Iaukki Stage III Hyaro-Electric Scheme

The scheme envisages pooling of more water in the Idukki reservoir by diversion of water from Kallar and Erattayar, tributaries of Perinjankutty river. The project comprises of (i) a masonry gravity dam 12 M high across the Kallar, (ii) an unlined tunnel 5M dia., and 2.75 Km. long to divert the water from Kallar to Erattayar, (iii) 19.5 M high masonry dam across Erattayar and (iv) 3.8 Km. long and 6M dia. unlined tunnel from Erattayar to Idukki. The scheme will yield an additional energy of 376 million Kwh. annually at Idukki and is estimated to cost Rs. 10.55 crores. The investment made on the project till March 1980 is Rs. 7.52 crores. An outlay of Rs. 3.03 crores is provided in the Sixth Plan to complete the scheme by 1981-82.

#### 3. Sabarigiri Augmentation Scheme

The proposals for augmenting generation under Sabarigiri Hydro-Electric Scheme consist of two parts, viz., (i) diverting into Pamba reservoir three small continuous streams Kullar, Gaviar, and Meenar, which new drain away, by constructing diversion weirs, unlined diversion tunnel and channels and (ii) diverting into Kakki reservoir the yield available from the Upper Muzhiyar catchment by constructing a diversion weir and an unlined tunnel. The average annual yield available from the diversion will be 2.7 TMC which when pooled in the Sabarigiri reservoirs will yield 14.5 MW corresponding to 130 million units per annum at the Sabarigiri power house. The scheme is estimated to cost Rs. 3.23 crores of which Rs. 3.13 crores has been invested till March 1980. In the Sixth Plan an outlay of Rs. 0.10 crores is provided to complete the scheme by 1981-82.

#### 4. Sabarigiri VI Unit Replacement

The scheme relates to the replacement of unit VI of the Sabarigiri hydro-electric scheme, which would restore the 50 MW power potential and bring the present power system capability to 1011.5 MW. The estimated cost of replacement is Rs. 4.28 crores, of which Rs. 3.42 crores has already been expended. During the Sixth Plan period an outlay of Rs. 0.86 crores is made to restore the unit by 1980 itself.

### 5. Silent Valley Hyaro-Electric Scheme

The Silent Valley scheme envisages utilisation of the yield of the Upper Kunthipuzha catchment in Bharathapuzha for power generation. The project consists of construction of a dam of 127 M high across Kunthipuzha to impound water to a height 317 M and a water conductor system comprising a circular lined pressure tunnel of 3.3M dia and 4267 M long and a penstock 1.9 M dia. and 2335 M long bifurcating at the power house. The power house will have two generators of 60 MW each in the first stage. In the second stage another penstock will feed two additional generation sets of 60 MW each. With a firm power draft of 8.7 cusecs over 857 M head the power generation will be 60MW corresponding to 522 MU per annum. The water release from the power house will be further utilised for irrigation. The scheme is estimated to cost about Rs. 58 crores. The investments made so far is Rs. 2.39 crores. An outlay of Rs. 17.50 crores has been provided in the Sixth Plan so that the scheme can be completed at least during the Seventh Plan period.

### 6. Kakkad Hyaro-Electric Scheme

The Kakkad Project is a tailrace development of existing Sabarigiri power station in the Pamba basin. The scheme comprises construction of two dams 32 M high, an unlined inter connecting tunnel 2900 M long and a pressure tunnel 7800 M long and a pressure shaft 365 M long to lead the tail race waters of Sabarigiri power station to Kakkad power station. This would add 30 MW of firm power to the existing system. The installed capacity proposed is two generating sets of 25 MW each. The scheme would cost Rs. 20.50 crores and an investment of Rs. 1.51 crores has been made till date. An outlay of Rs. 18.99 crores is provided to complete the project by 1984-85.

#### New Schemes

These new schemes will be taken up only if additional assistance is made available.

#### 1. Idukki—Stage II

This scheme is estimated to cost Rs. 31.68 crores, and envisages installation of three additional units of 130 MW each in the Idukki power house. At the time of completion of the I Stage works of Idukki most of the civil works for the II stage were also completed. The works to be carried out are streamlining the pressure shaft No. II and back filling with concrete and installation of the three additional machines in the space already provided. The scheme is scheduled to be completed by 1984-85 if the Canadian aid is forthcoming.

#### 2. Lower Periyar Hydro-Electric Scheme

This scheme, in Periyar basin, contemplates construction of a 30 M high dam across Periyar above the existing Periyar Valley Irrigation Barrage to intercept the tail flow of the upper station and divert the water through a 12 km. long tunnel and two penstocks 170M long leading to a surface power station having 3 units of 60 MW each. The power potential of the scheme is 66 MW equivalent to 578 MU per annum. The scheme would cost Rs. 59.76 crores. The scheme is to be completed during the Seventh Plan period.

### 3. Kuriarkutty-Karappara Hydro-Electric Scheme

This scheme consists of three dams and three power stations for the utilisation of the waters of Kuriarkutty, Pulikkal and Karappara rivers, all tributories of Chalakudi river, for power generation and irrigation. The firm power availability to the Kerala power system will be 24 MW constituted of installed capacities of 60MW at Kuriarkutty Power Station, 20 MW at Pulikkal Power Station and 15 MW at Karappara Power Station, adding 210 MU of energy per annum to the system. The scheme is estimated to cost Rs. 48.55 crores and is programmed for completion during the Seventh Plan period.

#### Advance action on New Schemes

It is proposed to start advance action on the schemes indicated in Table 5.17

TABLE 5.17

Name of Scheme	Estimated cost (Rs. crores)	Energy potential per annum MKwh.
1. Mananthavady	73.68	730
2. Pooyankutty	400.00	2000
3. Kallada	13.90	65
4. Adirappally	40.00	395
5. Perinjankutty	120.00	1000
6. Pandiyar-Punnappuzha	30.00	260
7. Peringalkuthu Right Bank	20.00	265
Total	697.58	4715

During the Sixth Plan period it is proposed to make initial investments in these schemes for the long-term power development in the State.

#### Survey and Investigation

This plan scheme aims at carrying out extensive investigation work as well as generating hydrological and meteorological data for the preparation of new projects which can be considered for investments in future. Since Kerala has good hydro electric potential, the plan allocation for this scheme is essential for harnessing the potential in future.

#### Transmission

Owing to insufficient investments on transmission and distribution schemes during the early Plan periods, the network of power lines within the State could not be built to the level required to meet the load demand in the State satisfactorily. Though Kerala has at present no dearth of power, prospective consumers have to wait for long periods for getting power connections. At present many applications for new connections are pending with the Electricity Board, some of them dating as far back as 1971. The voltage levels and stability of supply in most of the areas are also far from

satisfactory. The per capita consumption of electricity in the State is lower than the national average. This situation needs to be improved by strengthening and expanding the transmission and distribution system in the State. A transmission plan for the next decade will have to be based on the following additions to the system.

- (i) 220 KV sub-stations: three numbers one at Cannanore with a capacity of 300 MVA, one at north of Trichur with a capacity of 400 MVA and one at Trivandrum with a capacity of 300 MVA.
- (ii) 220 KV lines: Idukki to Trichur, single circuit from Idukki to Lower Periyar and double circuit from Lower Periyar to Trichur; Trichur north to Kozhikode via Silent Valley; Kozhikode to Cannanore (double circuit); Lower Periyar to Kalamassery (single circuit); Sabarigiri to Edamon (double circuit). Edamon to Trivandrum (double circuit) and Idukki to Pallom (single circuit). Further a line from Perinjankutty to Kumili connecting the Sabarigiri-Madurai line at Kumili to improve supply to the southern region.
- (iii) 110/66 KV sub-stations : At Kasargod, Tirur, Kunnankulam, Muvattupuzha, Aroor, Alleppey(south), Palai, Trivandrum (Balaramapuram) and Alathur.
- (iv) 110 KV feeder lines: double circuit lines from Kuttiyadi to Cannanore, Pandiyar-Punnapuzha to Malappuram Idamalayar to Chalakudy and Alwaye, Peringalkuthu Right Bank to Trichur North, Peringalkuthu Right Bank to Chalakudy via Adirappally, and Kakkad to Edappon.
- (v) 110 KV grid lines: Malappuram to Tirur (SC/DC), Trichur (North) to Kozhikode via Kunnankulam and Tirir (SC/DC), Pallom to Alleppey south (DC). Alleppey south to Aroor via Mararikulam (DC), Edamon to Edappon (DC) Kundara to Edamon (DC, second circuit), Cannanore to Mangad, Trivandrum to Balaramapuram (DC), Edappon to Alleppey South (DC), Vaikom to Palai (DC) and Trichur to Palghat via Alathur (DC). A few more links will be required to connect prospective EHT consumers.
- (vi) 66 KV lines: the redundant elements of the old 66 KV network will be reutilised to the fullest extent. New links to new substations and EHT consumers are also required.
- (vii) 400 KV Transmission: since the Central Power Authority is planning for a large network of 400 KV transmission lines for the Southern region, and since the power system is hydro-based, a high security link at 400 KV from the Super Thermal Station at Neyveli (Tamil Nadu) to Trichur (north Station, and connecting up the Trichur Station to the major hydro stations of Idukki, Lower Periyar

and Silent Valley have to be conceived in advance during the Sixth Plan period and work started on the same. The future stations of Perinjankutty and Puyankutty, Peringalkuthu Right Bank and Adirappally will also get connected to this Station.

On the basis of the backlog of work on transmission, and taking into account the need for bringing in better stability and better voltage condition in the grid, schemes have been contemplated for an amount of Rs.106.50 crores during the 1980-85 Plan. It is programmed to complete the construction of 3 numbers of 220 KV sub-stations, 24 numbers of 110 KV sub-stations, 62 numbers of 66 KV sub-stations and 277 Ct. Kms. of 220 KV lines, 1283 Ct. Kms. of 110 KV lines and 1841 Ct. Kms. of 66 KV lines during the 1980-85 Plan period. Provision has also been made to carry out preliminary works on major lines and sub-stations planned for completion during the Seventh Plan also.

#### *Distribution and Rural Electrification*

The deficiencies in the power distribution system in Kerala are inadequate transformer capacity and line capacity, frequent interruptions, poor voltage conditions long waiting period for power connection, high percentage of power losses etc.. The 1980-85 Plan therefore aims at strengthening the distribution system by speedy elimination of the backlog in the distribution work within a period of two to three years and to keep pace with the new demand of the period.

During 1980-85, it is proposed to extend the 11 K.V. lines through 4125 km. the L.T. lines three phase through 6000 km. and single phase through 15000km. The number of distribution transformers will be 4500 of 11 K.V./400 V. About twelve lakh service connection will be provided and two lakhs street lights would be raised. 100 MVA of 11 K.V. capacitors would also be provided. The number of pumpsets energised will be 69,000. Necessary outlay is also made in the Plan for improvement schemes for distribution of electricity in cities and towns.

Though all the revenue villages of the State have been provided with atleast one electrical line passing through the village, it is necessary to extend lines to all the inhabited desoms/karas in view of the size of the villages in terms of area and population and the dispersed settlement pattern in the State. Rural electrification is a very necessary adjunct to the planned development of the rural sector. Rural electrification should be complementary to schemes for installation of pumpsets, rural distribution etc. An outlay of Rs. 12.90 crores has been provided in the Plan for the normal schemes of line extension and Rs.10.63 crores to be mobilised through the Rural Electrification Corporation for rural electrification.

#### *Advance Action Relating to Alternate Sources of Energy*

The crisis prevailing in the sphere of energy and the phenomenal rise in crude oil prices have necessitated the immediate quest for alternate sources of energy based on sun, water, wind, animal and geothermal power. Unless steps are urgently taken to tap alter-

nate sources of energy the plan targets are likely to go awry. Realising this the Government of India have earmarked adequate provision for energy development in the Sixth Plan. The solar, tidal and wind energy resources are continuously being replaced. Direct solar radiation is by far the most abundant everlasting source. However we are yet to learn to use it properly. Tidal energy is derived from the gravitational force of celestial bodies. The potential of human and animal energy input is also quite significant. But utilisation of the various alternate sources of energy calls for a number of in-depth studies before these sources emerge as commercial possibilities. Hence a number of studies

relating to power from wind, ocean currents, fuel alcohol from tapioca etc., will be conducted during the Plan period. A token provision of Rs. 35 lakhs is allotted in the State Sector Plan for taking advance action relating to alternate sources of energy.

#### Survey and Investigation

The scheme contemplates detailed investigation of untapped hydel resources in the State and preparation of detailed Project reports. Survey and investigation programmes are essential for the continued development of the hydro resources of the State for power generation.

TABLE 5.18

## Power—Scheme-wise Outlay

(Rs. in lakhs)

Sl. No.	Name of Scheme/Project	1979-80	1980-81		1980-85		1981-82	
		Actuals (Unaudited)	Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Power</b>								
<b>I. Generation</b>								
(a) <i>Approved and on going Schemes</i>								
1.	Idamalayar	390	500	500	1267	1267	500	500
2.	Idukki III Stage	167	140	140	303	303	133	133
3.	Sabarigiri Augmentation	58	50	50	10	10	— 40	— 40
4.	Sabarigiri VI Unit Replacement	54	86	86	86	86	..	..
5.	Silent Valley	35	250	50	1750	1750	250	250
6.	Kakkad	100	250	200	1899	1899	300	300
(b) <i>New Schemes*</i>								
1.	Idukki II Stage	..	250	50	3168	3168	600	600
2.	Lower Periyar	20	60	60	2405	2405	235	235
3.	Kuriarkutty-Karappara	10	40	40	1012	1012	150	150
(c) (i) <i>Advance action on new Schemes</i> (Mananthavady, Pooyankutty, Kallada, Adirappally, Perinjankutty, Pandiyar-Punnapuzha, Peringalkuthu, H.E. etc.)								
		..	..	..	1200	1200	120	120
(ii) <i>Advance Action relating to Alternate Sources of Energy</i>								
		..	..	..	35	..	12	..
Power Generation Sub-Total		834	1626	1176	6550+ *6585	6550+ *6585	1275+ *985	1275+ *985
II. <i>Survey and Investigation</i>		72	100	100	400	400	75	75
III. <i>Transmission</i>								
1.	220 K.V. lines	..	131	131	1319	1319	180	180
2.	110 K.V. and 66 KV lines	..	427	427	2844	2844	600	600
3.	220 K.V. Sub-stations	..	193	193	1171	1171	148	148
4.	110 K.V. and 66 K.V. Sub-stations	..	709	709	5316	5316	922	922
Transmission Sub-Total		1381	1460	1460	10650	10650	1850	1850
IV. <i>Distribution and Rural Electrification</i>								
1.	Distribution	..	1378	2417	12904	12904	2447	2447
2.	Reduction of losses	..	200	230	1443	1443	253	253
3.	Rural Electrification—Normal	..	100	210	1290	1290	230	230
4.	R.E.C.	..	143	143	1063	1063	170	170
Distribution—Sub Total		1844	1821	3000	16700	16700	3100	3100
Power—Grand Total		4131	5007	5736	34300+ 6685*	34300+ 6585*	6300+ 985*	6300+ 985*

\*To be funded by Government of India outside the State Plan for building up the hydro-power generation capability for the Southern Region/Foreign assistance.

## 5.4 Industry and Minerals

### *Village and Small Industries*

#### 1. *Small Scale Industries*

There are about 16,000 small scale units registered with the State Directorate of Industries and Commerce. Significant progress has been achieved by agro-based, forest-based, marine based and clay-based industries in the State. High growth-oriented industries like engineering and chemical group of industries, have not made much headway in the State. Inadequacy of financial resources, raw material shortage, marketing difficulties and adverse land-man ratio constitute the major constraints in the development of small scale industries in the State. Non-availability of raw materials, both indigenous and imported, in time and in adequate quantities and also at fair prices seriously hamper the growth of small scale industries in the State. Many small units face marketing problems and find it difficult to sell their products. Their meagre resources prevent them from undertaking elaborate publicity and market promotion activities. During the Sixth Plan period no effort will be spared to remove the various difficulties facing the small scale sector. This will enable the State to set up atleast 17,000 new units during the plan period. While making only a limited demand on the scarce capital resources, small scale industries will help to create the much needed employment opportunities in the State. The State has built up most of the infrastructure facilities essential for the development of small units. Also a number of incentives have been offered to the private sector for setting up small units in the State. All these measures, it is hoped, will help to achieve the targets laid down in the Sixth Plan.

A short description of the various schemes proposed under the small scale sector is given below:

#### 1. *Departmental Administration*

For the efficient supervision of the various schemes relating to small scale sector the Departmental Organisation needs considerable strengthening. The district level set up will be District Industries Centres where all services and support required by the small scale and village industries will be provided as a package deal. At the taluk level the set up of the Department needs strengthening and reorganisation for the speedy development of small industry programmes like the Rural Industries Programme and Rural Artisans Programme. The Officers responsible for the implementation of the small industries development programme may have to be sent for training so as to make them aware of the development and technical advancement in the field of small scale industries. The monitoring cell in the Department will have to be further strengthened so as to equip it to monitor the schemes implemented by the District Industries Centres. The achievements of these District Centres will be evaluated periodically against the targets set and remedial measures taken wherever necessary. The Government of India has also pointed out the importance of setting up a full fledged Monitoring Wing in the Directorate. During the plan period the Industrial Co-operatives Wing will also be suitably strengthened. The State Government has recently suggested the formation of a project cell in all development departments in the State with a view to preparing detailed project reports and also a shelf of projects which

could be posed for assistance from financial institutions in India as also international agencies. Accordingly a project cell is proposed to be set up in the Directorate. This cell will initially collect project profiles from all possible sources, codify and distribute feasible projects reports.

#### 2. *District Industries Centres*

District Industries Centres have been set up in all the districts in the State. These centres constitute the main promotional agencies for the development of small scale industries. Owing to the greater emphasis laid on the development of small scale sector during the Sixth Plan period, these centres will have to play a crucial role in the coming years. The plan outlay provided is the State's share of this centrally sponsored scheme. The expenditure required for provision of salary and other allowances to the officers, office expenses rent, taxes etc. will be met from this outlay. Under the new set up in the district, financial assistance to cooperative societies working in the Rural Industries Project Areas, grant assistance, loans for the hire purchase of machinery, factory construction and such other programmes relating to the Rural Industries Projects will also have to be implemented through the District Industries Centres.

#### 3. *Industrial Co-operatives*

##### (i) *Share Participation in District Mini Industrial Co-operative Societies*

The participation of the State Government in the form of share capital assistance is necessary for the District Mini Industrial Estate Co-operative Societies. This will enable them to assist the entrepreneur members in the construction of buildings in the estates, to make available margin money for building construction, machinery etc. and, in case of urgency, to issue bridge loan to them.

##### (ii) *Revitalisation of Industrial Co-operative Societies*

There are about 1200 small scale industrial co-operative societies in the State. A survey to identify the viable, potentially viable and non-viable societies is being undertaken. A large number of potentially viable societies will have to be revitalised by extending necessary financial assistance. At the same time the non-viable societies will have to be liquidated. The provision made in the Plan is for making share capital assistance to co-operatives by the Government.

##### (iii) *Managerial and Technical Assistance*

In order to make the small scale industrial co-operative societies stand on their own assistance by way of managerial grant for a period of four years, grant to meet 50 per cent of the cost of machinery and equipments, 50 per cent of the rent for first two years and an allowance towards wastage of raw materials and towards purchase of furniture are proposed to be given. The outlay is for this purpose.

##### (iv) *Grant Towards Contribution to Reserve Fund*

As a part of the revitalisation programme of industrial co-operative societies, it is proposed to issue



grant towards reserve fund to the industrial co-operatives so that they become eligible to avail of institutional finance towards working capital.

(v) *Survey for Identification of Viable and Potentially Viable Co-operative Societies*

A survey to identify the viable, potentially viable and non-viable societies has been taken up. Follow-up action in the form of revitalisation of potentially viable societies, strengthening of viable ones and liquidation of non-viable ones is necessary. The staff engaged in the identification survey can be utilised for the follow-up action. Inspection and supervision of the co-operatives have also to be tightened and made more effective. Strengthening of the staff will be done after the receipt of the survey report. The outlay provided is for meeting the expenditure towards the above items.

(vi) *Subsidy towards Loss of Interest on Reserve Bank of India Credit to Co-operative Societies*

The scheme of financing small scale industrial co-operatives under the RBI scheme has been in force since 1977-78. The cooperative banks are making available term loans as well as working capital and other loans from their own funds to the small scale industrial cooperatives. The Kerala State Co-operative Bank is also making available term loans to the District Mini Industrial Estate Co-operative Societies for construction of buildings. It is proposed to give interest subsidy in respect of such loans so that the societies may be in a position to avail of the loans at subsidised rate of interest.

(vii) *Refund of Share Value in Engineering Co-operative Societies of Unemployed Engineers*

The membership in the engineering industrial co-operative societies is much in excess of the requirement for employment as per the project report/scheme. Unless the surplus members are paid back their share contribution it may not be possible for the proper and smooth working of these societies. The provision is intended for refund of the share value to the excess members.

(viii) *Soft Loan to Engineering Co-operative Societies of Unemployed Engineers*

In cases where the engineering industrial co-operatives are unable to avail of institutional finance due to heavy loss, lack of net disposable resources, margin and cover etc., it may be necessary to issue working capital loans. The provision made in the Plan is for this purpose.

(ix) *New Schemes Under Industrial Co-operatives including share Capital Assistance, Working Capital Loans, Acquisition of Land, Construction of Work Sheds, Godowns and Subsidy on Excise Duty and Employees State Insurance Expenses*

The absence of an Apex Federation is a major handicap for the industrial cooperatives in the State. It is therefore proposed to organise an Apex Society for the procurement of finished goods and distribution of raw materials required for primary societies. For strengthening the financial structure of societies it is proposed to raise the share value to atleast Rs. 100

per share. The members may not be able to meet this increase in share value. Hence loans are to be advanced to members to complete the share value at a rate not exceeding Rs. 75 per member. Provision is made in the Plan for share capital loan at the rate of Rs. 5000 each for 400 societies. Special working capital loan is also to be provided to societies to revive their working. Assistance to societies by way of 50 per cent loan and 50 per cent grant for acquiring land, construction of offices, work sheds and godowns is also envisaged in the Plan. The small industry cooperative societies are also included under Employees State Insurance Scheme. As most of the societies are working on loss or on nominal profit, it is proposed to give 50 per cent subsidy on ESI contribution. Assistance to societies in special cases to wipe off losses is also proposed. Beedi co-operatives will also be assisted by providing 10 per cent subsidy on excise duty so that the heavy burden of excise duty is slightly relieved.

4. *Women's Industrial Programme*

(i) *Promotional schemes for Women's Industries*

The outlay of Rs. 25 lakhs made in the Plan is meant for provision of certain special incentives for women's industrial units in order to enable women to take active participation in industrial ventures in the State.

(ii) *Share Participation in Women's Industrial Societies*

The intention of this scheme is to enable primary and central vanitha societies to raise funds by extending a Government share proportionate to their collected share.

(iii) *Starting of Production-cum-Training Centres*

It is proposed to give training facilities to young women entrants to small scale industries with a view to abling them to pursue purposeful self employment. The outlay set apart is for starting production cum training centres for women.

5. *Harijan Development and Tribal Programmes*

A mini industrial estate exclusively for the benefit of SC/ST entrepreneurs is being set up at the Thonnakkal harijan colony area in Trivandrum District. The Harijan Welfare Department will also be associated with this programme. During the Plan period it is proposed to give stipends to the SC/ST trainees, in industrial management. Another scheme to be implemented is the provision of interest free loans to harijan entrepreneurs who are engaged in small scale or traditional industries. Such loans will also be available for starting new industries. The loans can be utilised for procuring machinery and tools, purchase of raw materials, payment of wages etc. The maximum amount eligible for an entrepreneur is Rs. 10,000. During the Plan period steps will be taken for the promotion of industries among the tribals. Industries set up in tribal colonies will be given all encouragement. Another scheme envisaged in the Plan is the creation of an alternative centralised organisation for assisting the Harijan families engaged in the production and sale of ratten/bamboo items. The idea is to start a centralised organisation for collection and distribution of raw materials and collection and sale of finished

products and thereby eliminate middlemen from the field. It is proposed to implement the scheme as a pilot project in Trivandrum District. During the plan period it is also proposed to provide management personnel facilities for export of products, vehicle sheds etc., to harijan entrepreneurs. A total outlay of Rs. 200 lakhs is proposed for the above schemes in the plan.

## 6. *Economic Investigation*

### 1. *Setting up of a Documentation Centre*

Latest available data from all sources required for the promotion of small scale industries will be collected and compiled systematically and kept ready for easy reference to cater to the needs of the large number of intending entrepreneurs approaching the Industries Directorate. The plan provision is for setting up a documentation centre at the Directorate.

#### (ii) *Study on the Requirements and Availability of Raw Materials for Small Scale Units*

A thorough study on the requirements and availability of raw materials for the small scale units in the State is proposed to be conducted. The outlay is for this purpose.

#### (iii) *Study of Linkages of District Industries Centres with Other Agencies*

A detailed study of the linkages of District Industries Centre with other departments, agencies etc. is envisaged. The Indian Institute of Management, Bangalore, has offered to study the problem in detail and give a comprehensive proposal of industrial development in the State. The provision is for payment of expenses to the Institute.

#### (iv) *Internal Market Survey*

The plan provision is for the conduct of an internal market survey of the products of small scale units in the State. This will help to find home market for products produced in the small scale sector.

#### (v) *Sectoral Studies on Industries*

The importance of accurate information on the different aspects relating to small scale units has been well recognised. Lack of essential data in this sector has been responsible to a large extent for the state's inability to plan the development in a systematic manner. A sectoral product-wise study of small scale industries will therefore be done during the Sixth Five Year Plan period. Sectoral studies covering about 20 small scale industries such as food products, hosiery and ready-made garments, wood-based industries, paper products, leather products, rubber goods, plastics, chemical products, non-metallic mineral products, metal products, machinery and parts, electrical and electronic items and transport equipment has been programmed. The conduct of such sectoral studies will facilitate the formulation of purposeful programmes of industrial development in the State.

## 7. *Industrial Extension and Publicity*

### (i) *Industrial Information Centre*

It is intended to equip the information centres attached to the Industries Directorate and the eleven District Industries Centres with libraries. Reference books of technical nature will be purchased for these libraries. Publication of the Industries Guide is also proposed.

### (ii) *Aid to Small Industries Associations*

The plan outlay is for giving financial assistance by way of grant against recurring and non-recurring expenses incurred by the district level and state level Small Industries Associations.

### (iii) *Subsidy for Publication of Periodicals, Pamphlets etc. for Entrepreneurial Guidance*

The provision made in the plan is for giving financial assistance to the Small Industries Development and Employment Corporation (SIDEKO) for publication of the monthly magazine 'Vyavasaya Keralam'. It is also proposed to publish a fortnightly news and tender bulletin and an annual number. The work will be entrusted to the Public Relations Wing of the SIDEKO.

### (iv) *Trade Fairs and Exhibitions*

The plan provision of Rs. 45 lakhs is for participation by the Industries Department in various exhibitions in and outside Kerala State. The main objective is to give wide publicity and propaganda to the industrial products of the State and thereby promote their sales.

### (v) *Measures for Export Promotion*

In general small scale units experience difficulty in exporting their products though there is good demand for them in the export market. Market intelligence on these items will have to be gathered for sales promotion and management through trade delegations. Further, in order to boost exports, awards are to be instituted for the best export performance in the small scale sector. A plan outlay of Rs. 25 lakhs has been provided to instil in the small scale entrepreneurs an awareness of the benefits of export promotion schemes. Seminars on export promotion, export oriented demonstrations with the assistance of Export Promotion Councils etc. are also envisaged under measures for export promotion during the plan period.

### (vi) *Subsidy for Advertisement and Publicity and Other Market Support for Small Scale Industry Products*

During the plan period the small scale units will be assisted in their efforts to promote sales of their products. These units will be provided subsidy to meet part of the cost of participation in trade Fairs and Exhibitions and other publicity measures undertaken.

### (vii) *Subsidy for Registration with Export Promotion Councils and Indian Standards Institution*

Small scale units which are facing financial problems in registering with Export Promotion Councils, Commodity Boards and Indian Standards Institution,

will be provided subsidy. The provision of the subsidy will enable the entrepreneurs in setting up of testing laboratories, which is a pre-requisite for ensuring quality. A wider coverage of units is proposed under this scheme.

(viii) *Publicity-cum-Display Van for Ancillary Items*

It is proposed to organise a mobile exhibition of ancillary items required by major industrial units in the State. The provision in the plan is for meeting the fuel charges for the van and other expenses connected with the scheme.

8. *Technical Assistance Programmes*

(i) *Subsidy for Project Reports and Technical know-how*

For the development and application of technology appropriate to Kerala's economic and social conditions special arrangements will be made to make available project reports and technical know-how. It is proposed to subsidise the cost involved. Assistance will also be given for adoption of foreign technology suitable to Kerala conditions.

(ii) *Development of Prototypes in Small Scale Units*

The plan outlay of Rs. 5 lakhs is for providing financial assistance to individuals or small scale units for the development of prototypes or for fabrication of new models or for setting up of pilot projects with a view to promoting local talents and inventive intelligence.

(iii) *Entrepreneurial Development and Training*

It is intended to make a coordinated and concerted effort to stimulate and motivate potential entrepreneurs to take up industrial ventures. Systematic entrepreneurial development programme is necessary to develop talents. The plan provision is for giving facilities on different aspects of training for management and expertise.

(iv) *Modernisation Subsidy for Industrial Units*

Modernisation of obsolete plant and machinery in small scale industries is essential to increase productivity and to make their products competitive in the market. The outlay of Rs. 25 lakhs proposed in the Sixth Plan is for extending financial assistance to small scale units to modernise their plant and machinery.

(v) *Kasargode Development*

This scheme aims at giving financial assistance to entrepreneurs to set up industrial units in the Kasargode area as a part of Kasargode Development Scheme.

(vi) *Industrial Complexes in Municipal Areas*

The object of this plan scheme is to set apart separate areas for establishing industries in municipal areas as development plots. Infrastructure facilities and developmental works will be taken up by the Department and necessary plots will be allotted on hire purchase basis to prospective entrepreneurs.

(vii) *Training and Interest Free Loans for Young Entrepreneurs*

This is a major scheme under small industry development for enthusing young entrepreneurs. According to the scheme it is proposed to give grants to agencies/institutions/organisations coming forward to conduct training camps for entrepreneurs. The participants would be given stipends, interest-free-loan up to Rs. 5000 will also be provided to the entrepreneurs for setting up of industries on successful completion of training. An outlay of Rs. 350 lakhs is provided under this scheme.

(viii) *Industrial Academy*

The proposal in the plan is to establish an Industrial Academy which will undertake to train up a line of young managers capable of analysing and solving the problems faced by the small scale industries in the State. The Academy will also provide advanced technical know-how to young entrepreneurs.

(ix) *Central Tool Room Unit*

In line with the recommendation contained in the Report on Southern Region Tool Room Survey conducted by the Small Industries Service Institute, Trichur, in 1956, one medium type tool room and training centre to cater to the requirement of A and E class type of toolings for all types of industries is proposed to be located at Palghat and another at Ernakulam. Central assistance is expected for this scheme, the total cost of which will be Rs. 121 lakhs. The outlay of Rs. 25 lakhs in the State Plan is the State's share for the scheme.

9. *Marketing Assistance*

(i) *Marketing Organisation for Small Scale Industries*

As the functions of the SIDECO marketing division are limited and as the number of small units is increasing every year it has become quite necessary to set up a marketing organisation in the State. Hence it is proposed to set up a Marketing Corporation exclusively for marketing the small scale industry products within and outside the State. The outlay provided is for the implementation of this major scheme.

(ii) *Trade Centre at Cochin*

The object of this plan scheme is to provide integrated marketing assistance to the small scale industries. Trade centres can be focal points for buyers and sellers with all the supplementary services to promote trade contracts and international trade. Fifty per cent central assistance is available for this scheme which relates to the setting up of a Trade Centre at Cochin.

(iii) *Quality Marketing.*

The object of this plan scheme is to reorganise the present system of quality marking which is confined to eight industrial products only. It is proposed to set up quality marking depots to test sixteen industrial products during the Sixth Plan period. The plan provision of Rs. 25 lakhs under the scheme is for meeting the expenditure on chemicals, equipments,

salary of staff, reference books, furniture and training of personnel.

10. *Assistance to Small Industries Development and Employment Corporation (SIDEKO) and Kerala Financial Corporation*

(i) *Share Participation in SIDEKO.*

In order to strengthen the SIDEKO which is the major organisation in the field of small scale industries, sufficient plan funds have to be provided. The outlay is for share capital contribution to the Corporation by the State Government.

(ii) *Interest Subsidy to Kerala Financial Corporation.*

This scheme is to give subsidy to Kerala Financial Corporation towards the difference in the rate of interest at which loans are issued to small scale units and the usual lending rates of the Corporation. The State has also to make arrear payment to the Corporation under this scheme.

(iii) *Expansion of Ceramics Service Centre.*

The Ceramics Service Centre, Mangattuparamba, is at present managed by the SIDEKO. The provision is for reimbursement of the expenditure incurred by the SIDEKO for running the units and for providing managerial remuneration.

11. *Promotional Programmes.*

(i) *Seed Capital to Entrepreneurs to Start Industries.*

The main objective of this scheme is to assist the entrepreneurs who are unable to raise margin money from their own resources when the financing institutions are willing to help them by giving 70 to 80 per cent of capital requirements. In such cases, generally, fifty per cent of the balance twenty per cent of the margin required will be provided by the State Government. An outlay of Rs. 7 crores is set apart for this scheme in the Sixth Plan.

(ii) *State Investment Subsidy.*

A state investment subsidy of 10 per cent of capital investment will be given to industrial units in all the districts of the State except the three most backward districts of Cannanore, Malappuram and Alleppey where central government subsidy is available. The subsidy will be made available not only to new units but also to those units which propose substantial expansion of production. The State Government subsidy will thus be available to industries which propose diversification, expansion or fresh investment. This scheme is in vogue since 1-4-1979. A total outlay of Rs. 8 crores is provided for this scheme in the Sixth Plan.

(iii) *Revitalisation of Sick Small Scale Units.*

The plan outlay of Rs. 50 lakhs for this scheme is to provide assistance for the revival of sick small scale units. This scheme will be implemented with the help of SIDEKO.

(12) *Other Schemes.*

i. *Educational Grant to Children of Workers*

The plan proposal is to provide educational grants to deserving children of workers in small scale and traditional industries.

(ii) *Intensive Development Project at Amaravila.*

The aim of the scheme is to implement schemes suitable for removing lop-sided growth of industries in the Amaravila Pilot Project area and start new units to remedy the backwardness of the area. The provision is for giving loan and grant assistance for factory construction and expansion and purchase of machinery and equipments for new units, expansion and diversification programmes etc.

(iii) *Industrial Complexes.*

This plan proposal is for establishing industrial complexes in the State. Each complex will have a number of member units and will be complementary to each other having considerable inter-dependence based on particular technological link. Acquisition and development of land, construction of buildings and other package of assistance will be provided to selected entrepreneurs. SIDEKO will be the implementing agency for the scheme.

*Centrally Sponsored Schemes.*

A. *Schemes having 100 per cent Central Assistance*

(i) *Nucleus Cell for Census*

The provision made in the Plan is for conducting a Census of the Small Scale Units in the State. The Census will be sponsored by the Centre and 100 per cent assistance will be available for the scheme.

(ii) *Interest Subsidy to Engineering Entrepreneurs.*

The Government of India has approved a scheme for payment of subsidy to the extent of difference between 7 per cent and the normal rate of interest charged on the loans advanced by financial institutions/banks for acquisition of land, buildings, plant and machinery for setting up of small scale industries by engineering entrepreneurs subject to a maximum of Rs. 20,000 per annum in a single case. The subsidy is available for five years in backward areas, and for three years in other areas. The scheme was extended up to 31-3-1980 and the eligibility period will continue even after the above date till the three year/five year period is over. The provision in the Plan is for the above purpose.

(iii) *Central Investment Subsidy to Industrial Units in Backward Areas*

As part of the measures to ensure balanced regional development Government of India is giving several financial incentives for industries, set up in selected backward districts in the country. The incentives are in addition to the facilities and incentives offered by the State Government. The outlay of

Rs. 750 lakhs made in the Plan is for providing financial assistance to industrial units in the most backward districts of Malappuram, Cannanore and Alleppey by way of 10 to 15 per cent subsidy on their capital investment. The assistance is available for starting new units or for substantial expansion of the existing units.

*B. Schemes having 50 per cent Central assistance.*

(i) *District Industries Centres.*

A total plan outlay of Rs. 12 crores is made in the Plan for the continuance of the District Industries Centres already set up in the State. The State is eligible to get 50 per cent of this outlay from the Centre. The scheme envisages expenditure on direction and administration, financial assistance to co-operative

societies working in the Rural Industries Project areas, grant assistance under Rural Artisans Programme and other development schemes. The outlay includes loan assistance for hire purchase of machinery and factory construction under Rural Industries Projects now merged with District Industries Centres of which a provision of Rs. 120 lakhs is exclusively earmarked to SC/ST entrepreneurs under RIP.

(ii) *Trade Centre at Cochin*

The object of the scheme is to provide integrated marketing assistance to small scale industries and provide a focal point for buyers and sellers with all the supplementary services to promote trade contacts and international trade. Fifty per cent of the total cost of Rs. 13 lakhs for the scheme is expected from the Centre.

TABLE 5.19

**Small Scale Industries—Scheme-wise Outlay**

(Rs. lakhs)

Name of Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
		Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>1. Departmental Administration</b> (including Small Scale industries Organisation, Strengthening of Directorate, Training of Departmental Personnel, Monitoring cell, Co-operative wing and Project Cell)	7.78	16.00	17.00	150.00	..	30.00	..
<b>2. District Industries—Centres</b>	123.64	95.00	124.35	600.00	400.00	125.00	75.00
<b>3. Industrial Co-operatives</b>							
(i) Share Participation in District Mini Industrial Co-operative Societies	..	5.00	5.00	80.00	80.00	10.00	10.00
(ii) Revitalisation of Industrial Co-operative Societies—Share Participation	11.22	..	..	75.00	75.00	10.00	10.00
(iii) Managerial and Technical Assistance	3.30	4.00	4.00	30.00	..	6.00	..
(iv) Grant towards Contribution to Reserve Fund	0.03	0.50	0.50	2.00	..	0.50	..
(v) Survey for Identification of viable and Potentially Viable Co-operative Societies	2.85	1.50	2.85	15.00	..	3.00	..
(vi) Subsidy Towards Loss of Interest on Reserve Bank of India Credit to Co-operative Societies	..	2.00	1.00	10.00	..	0.50	..
(vii) Refund of Share Value in Engineering Co-operative Societies of Unemployed Engineers	..	0.50	0.50	2.00	..	0.50	..
(viii) Soft Loan to Engineering Co-operative Societies of Unemployed Engineers	..	0.02	0.05	5.00	..	0.50	..
(ix) New Schemes Under Industrial Co-operatives including Share Capital Assistance, Working Capital Loans, Acquisition of Land, Construction of Worksheds, Godowns, and Subsidy on Excise Duty and E.S.I. Expenses	..	..	..	100.00	75.00	15.00	15.00
<b>4. Women's Industrial Programmes</b>							
(i) Promotional Scheme for Women's Industries	9.50	3.00	10.00	25.00	..	7.50	..
(ii) Share Participation in Women's Industrial Societies	8.03	1.00	10.00	25.00	25.00	7.50	7.50
(iii) Starting of Production-cum-Training Centre	..	1.50	1.50	8.00	4.00	1.00	0.50

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
5. <i>Harijan Development and Tribal Programmes</i>								
(Including loans to Harijan Entrepreneurs, Training for S.C./S.T. Entrepreneurs, Organisation for Collection of Raw Materials, Industrial Estate for Harijan Entrepreneurs, Tribal Sub Plan)	14.55	23.50	34.70	200.00	50.00	35.00	10.00	
6. <i>Economic Investigation</i>								
(i) Setting Up of Documentation Centre	..	2.00	3.37	15.00	5.00	3.00	1.00	
(ii) Study on the Requirements and Availability of Raw Materials for Small Scale Units	0.20	1.00	4.00	10.00	..	2.50	..	
(iii) Study of Linkages of District Industries Centres with Other Agencies	0.15	0.50	0.50	0.65	..	..	..	
(iv) Internal Market Survey	..	..	..	5.00	..	1.00	..	
(v) Sectoral Studies on Industries	..	..	..	20.00	..	4.00	..	
7. <i>Industrial Extension and Publicity</i>								
(i) Industrial Information Centre	2.40	2.00	2.00	10.00	..	2.00	..	
(ii) Aid to Small Industries Associations	0.63	1.00	1.00	5.00	..	1.00	..	
(iii) Subsidy for Publication of Periodicals, Pamphlets etc for Entrepreneurs Guidance	1.01	1.40	1.40	7.40	..	1.50	..	
(iv) Trade Fairs and Exhibitions	6.68	3.50	6.50	45.00	..	10.00	..	
(v) Measures for Export Promotion	..	4.00	5.50	25.00	..	8.00	..	
(vi) Subsidy for Advertisement and Publicity and Other Market Support for Small Scale Industry Products	..	1.00	1.00	6.60	..	1.40	..	
(vii) Subsidy for Registration with Export Promotion Council and Indian Standard Institution	0.64	1.00	1.50	50.00	..	10.00	..	
(viii) Publicity-cum-Display Van for Ancillary Items	..	1.00	1.00	5.00	5.00	1.00	1.00	
8. <i>Technical Assistance Programmes</i>								
(i) Subsidy for Project Reports and Technical Know How	0.53	1.00	1.00	30.00	..	5.00	..	
(ii) Development of Proto-Types in Small Scale Units	0.48	0.50	0.50	5.00	..	1.00	..	
(iii) Entrepreneurial Development and Training	2.23	2.50	2.50	15.00	..	3.00	..	
(iv) Modernisation Subsidy for industrial Units	0.50	1.00	1.00	25.00	..	5.00	..	
(v) Kasargode Development	5.48	1.50	5.00	25.00	..	5.00	..	
(vi) Industrial Complexes in Municipal Areas	..	1.00	1.00	25.00	25.00	5.00	5.00	
(vii) Training and Interest-Free Loans for Young Entrepreneurs	..	50.00	50.00	350.00	..	50.00	..	
(viii) Industrial Academy	..	5.00	5.00	25.00	25.00	15.00	15.00	
(ix) Central Tool Room Unit	..	..	..	25.00	15.00	5.00	3.00	
9. <i>Marketing Assistance</i>								
(i) Marketing Organisation for Small Scale Industries	..	50.00	50.00	100.00	25.00	20.00	5.00	
(ii) Trade Centre at Cochin	..	2.00	2.00	6.50	..	4.00	..	
(iii) Quality Marking	..	2.00	4.00	25.00	..	5.00	..	
10. <i>Assistance to SIDECO and KFC</i>								
(i) Share Participation in SIDECO	10.00	10.00	10.00	50.00	50.00	10.00	10.00	

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(ii) Interest Subsidy to K.F.C.		20.10	0.10	0.10	40.00	..	10.00	..
(iii) Expansion of Ceramic Service Centre, Mangattuparamba		3.97	1.50	4.00	10.00	5.00	4.00	2.00
11. Promotional Programmes								
(i) Seed Capital to Entrepreneurs to Start Industries		38.15	20.00	48.00	700.00	700.00	100.00	100.00
(ii) State Investment Subsidy		32.43	60.00	80.00	800.00	..	75.00	..
(iii) Revitalisation of Sick Small Scale Units		..	15.00	15.00	50.00	..	15.00	..
12. Other Schemes								
(i) Educational Grant to Children of Workers		..	3.00	3.00	15.00	..	3.00	..
(ii) Intensive Development Project at Amaravila		..	1.00	1.00	2.00	2.00	0.50	0.50
(iii) Industrial Complexes		..	1.00	3.00	25.00	25.00	5.00	5.00
Total—Small Scale Industries		306.64	412.55*	537.83*	3892.68*	1598.01	642.90	275.00

\* Inclusive of outlays for 1980-81 for the schemes share participation in Industrial Co-operative Banks (Rs. 0.01 lakh), Margin Money for Revitalisation of Engineering Co-operative Societies (Rs. 0.02 lakh), Share Participation in Small Scale Industrial Co-operatives (Rs. 5.00 lakhs), Loan Assistance to Women Entrepreneurs (Rs. 1.00 lakh), Share Participation and Loan to Joint Stock Companies (Rs. 2.00 lakhs), Share Contribution to Primary and Central Vanitha Societies (Rs. 1.00 lakh) Aid to Women Industrial Units for participation in Exhibition (Rs. 0.50 lakh) and Organisation of District Level Marketing Depots (Rs. 2.00 lakhs).

#### Industrial Estates.

The industrial estates programme was designed to provide opportunities for self employment especially to the educated youth of the State. Exploitation of local raw materials resources, mobilisation of maximum finance from financial institutions and utilisation of the abundant manpower available in the State are the main points of emphasis of this programme. The major attraction of the programme was the availability of infrastructure facilities for the development of small scale industries in the State.

The following schemes are proposed to be implemented during the plan period 1980-85.

#### (i) Common Facility Service Centre, Changanacherry.

The provision for the Centre is intended for capital investment, purchase of raw materials and stores, payment of wages to workers etc.

#### (ii) Functional Industrial Estate for Leather, Kasargode.

The outlay is to meet the expenditure for the functional industrial estate for leather and leather products at Kasargode.

#### (iii) Providing Additional Facilities in the Existing Development Plots.

Development works such as construction of new roads, improvements to existing roads, providing water supply and electricity facilities, constructing administrative buildings, providing telephones, banking facilities etc. are to be carried out in the existing development plots in the State. The provision is intended for the purpose.

#### (iv) New development Plots including those in Backward Areas.

The outlay is provided for land acquisition for setting up new development plots both in the backward and non-backward districts of the State.

#### (v) Rural Industries Centre, Kadanad.

A rural industries centre is proposed to be set up at Kadanad in Kottayam district in collaboration with the Hindustan Machine Tools, Kalamassery. Various activities such as servicing, trading, manufacturing, repair of tractors, tillers, threshers, sprayers, agricultural pumpsets etc. could be undertaken in the Centre. Provision of services to rural electrification agencies, irrigation and public works department etc. is also envisaged. This centre will be managed by the Kerala Agro Industries Corporation.

#### (vi) Rent subsidy on Industrial Estates.

Sheds in the industrial estates are allotted to unemployed engineers/ technicians and other deserving entrepreneurs for running industrial units on rent free basis for a period of five years. Rent concessions are also allowed to the units in the industrial estate, Kasargod. The provision will be utilised for reimbursement of rent to the SIDECO which is running the industrial estates.

#### (vii) Mini Industrial Estates—Interest Subsidy and Subsidy towards Cost of Construction.

It is intended to provide financial assistance to reduce the interest burden of the entrepreneurs in the mini-industrial estates. Outlay is also provided for giving subsidy towards construction of the mini estates

so as to bring down the rent payable by the entrepreneurs. Subsidy at Rs. 50,000 per estate is given at present towards the construction of the estate.

(viii) *Functional Industrial Estate for Rubber in Malappuram District.*

Though there are large areas of rubber cultivation in Nilambur and Manjeri rubber processing units and other industries have not developed in the area. It is therefore suggested that industrial estates, each covering an area of 10 to 15 acres may be set up with about 20 units each and Common Facility Service Centre providing services of processing machinery and technical guidance. Necessary land may have to be acquired and developed and buildings constructed and allotted to selected entrepreneurs on hire-purchase basis. The outlay is for this purpose.

(ix) *Industrial Estate and Common Facility Service Centre for Fruit Products at Punalur.*

There is scope for setting up fruit processing units at Punalur. To begin with it is proposed to acquire and develop an area of about 2 to 5 acres. The scheme is to set up five or six units with a Common

Facility Service Centre for Fruit Preservation and Processing.

(x) *Functional Industrial Estate and Common Facility Service Centre for low-priced Ceramics at Kottiyam in Quilon District.*

China clay deposits in large quantities are available in and around Kottiyam. There is scope for setting up units for the production of ceramic wares. About 27 acres of land at the Vanchi Clay Mines are available for setting up industrial units. The object is to develop this area under the development plot scheme to be allotted to selected entrepreneurs for setting up units based on China clay. It is also proposed to set up a Common Facility Service Centre for the service of the units.

(xi) *Industrial Estate for Ceramics at Mangattuparamba*

Land is available at the Ceramic Service Centre, Mangattuparamba. It is intended to set up a few industrial units for production of ceramic items. The units are to be allotted to selected entrepreneurs on hire purchase basis.

TABLE 5.20

*Industrial Estates—Scheme-wise Outlay*

Sl.No.	Name of Scheme/Project	Rs. lakhs						
		1979-80	1980-81		1980-85		1981-82	
		Actuals	Approved outlay	Anticipated Expenditure	Proposed outlay	Capital Content	Proposed outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1	Common Facility Service Centre, Changanacherry	0.76	1.00	1.00	6.50	..	1.25	..
2	Functional Industrial Estate for Leather	..	1.00	1.00	25.00	25.00	5.00	5.00
3	Providing Additional Facilities in the Existing Development Plots	5.03	9.00	9.00	50.00	50.00	5.00	5.00
4	New Development Plots including those in Backward Areas	2.02	5.00	45.00	700.00	700.00	75.00	75.00
5	Rural Industries Centre, Kadanad	..	1.00	1.00	13.00	13.00	3.00	3.00
6	Rent Subsidy on Industrial Estates	0.14	0.50	0.50	5.00	..	1.00	..
7	Mini Industrial Estates—Interest Subsidy and Subsidy Towards Cost of Construction	3.57	9.00	9.00	22.00	..	3.00	..
8	Functional Industrial Estate for Rubber in Malappuram District	..	..	..	7.00	6.00	1.50	1.50
9	Industrial Estate and Common Facility Service Centre for Fruit Products at Punalur				5.00	4.00	1.25	1.25
10	Functional Industrial Estate and CFSC for Low Priced Ceramics at Kottiyam in Quilon District				5.00	4.00	1.25	1.25
11	Industrial Estate for Ceramics at Mangattuparamba				5.00	4.00	1.25	1.25
	Total—Industrial Estates	11.52	26.50	66.50	843.50	806.00	98.50	93.25

*Handloom Industry*

Handloom industry provides direct employment to nearly two lakh persons in Kerala. Though the handloom industry could rehabilitate itself to some extent and improve its productive and marketing services as a result of the liberal help extended by the Central and State Governments, there is the continuous threat from the mill sector with its advances in production technology, designs and marketing strategy. In

addition, the problems of soaring prices of raw materials, accumulation of unsold stock, stiff competition from organised mill sector and marketing problems continue to persist in this sector. Regular and continuous employment of handloom weavers could be assured only by adequate and timely supply of raw materials at reasonable prices. The mill sector has the advantage of consuming yarn produced at spindle point without any additional element of handling cost. On the other hand the handloom industry has to pay extra cost for yarn



by way of bundling, packing, transporting, handling etc. At present about 50 per cent of the total requirement of yarn in the handloom sector of Kerala is being met by the spinning mills of other States. Another important problem facing the industry is the occasional glut in the market. The industry in Kerala is facing competition from neighbouring states where the cost of production and, in turn, the selling prices of handloom cloth are much lower mainly owing to the fact that minimum wages have not been fixed for handloom workers of these States. In order to attract consumers, diversification of production, evolution of new types of handloom fabrics and blended fabrics are necessary in the new as well as in the traditional markets.

A total provision of Rs. 1019 lakhs is earmarked for handloom development in the Sixth Plan. Of this an amount of Rs. 59.5 lakhs is for the new schemes. Organisation of more weavers under the co-operative to ensure better wages, improved productivity and easys marketing of their products, enhancement of the annual production of handloom cloth from the existing 89 million metres to 155 million metres by the end of plan period, improvement of the quality of handloom goods and promotion of sales of handloom goods both in domestic and foreign markets will constitute the major objectives of handloom development in the Sixth Plan period. With a view to achieving these objectives the following schemes are proposed for the plan period 1980-85.

#### 1. *Expansion and Organisation of Weavers' Industrial (Factory Type) Co-operative Societies*

This scheme is aimed at bringing more loomless weavers into the co-operative fold. The factory type societies with facilities for working 50 to 100 looms under a common roof have several advantages like continuous employment to weavers, increased productivity and better quality control over the cottage type primary handloom weavers societies. It is therefore proposed to start a few new factory type industrial societies and also to give financial assistance for the expansion of some of the existing societies. An outlay of Rs. 70 lakhs is earmarked in the Plan for this Scheme.

#### 2. *Services of Departmental Personnel*

It is proposed to continue the scheme of providing free services of Departmental Officers as paid Secretaries to the Weavers Co-operative Societies which do not have adequate resources to meet the cost from their own funds. The Plan outlay is for meeting the expenditure towards pay and allowances of the officers so deputed.

#### 3. *Modernisation of Looms*

This scheme will cover programmes such as assistance to handloom weavers societies to modernise the looms of their members by replacement of worn out parts, provision of additional fittings, purchase of accessories and conversion of pitlooms into framelooms. Twenty five per cent of the cost will be borne by the beneficiaries.

#### 4. *Warehouse Loans to Primary Weavers' Co-operative Societies*

The plan provision of Rs. 35 lakhs for this scheme is for issue of loans to primary weavers' co-operative societies for the construction of warehouses and godowns for stocking raw materials and finished products.

#### 5. *Quality Control*

The provision is for meeting the expenditure towards equipments, chemicals etc. required for depots set up with the object of controlling the quality of production in the weavers' societies.

#### 6. *Share Capital Loans to Weavers in Primary Weavers Societies*

In order to help the weavers to fully contribute the value of their shares and thereby increase the borrowing capacity of primary weavers' co-operative societies assistance is provided under this scheme. The plan outlay of Rs. 5 lakhs for the scheme is for loans to the weavers co-operative societies for this purpose. The Central Government will provide 50 per cent matching contribution for this scheme.

#### 7. *Construction of Worksheds for Apex/Regional and Primary Welfare Societies*

Assistance from the National Co-operative Development Corporation (NCDC) is available for the construction of worksheds and for the supply of looms and accessories to the primary weavers' co-operative societies and also for the construction of godowns and show rooms for the Apex Society. The plan provision of Rs. 90 lakhs made under this scheme is the State's contribution towards its implementation.

#### 8. *Expansion of Dye Houses and Establishment of New Ones*

Bleaching and dyeing facilities are essential to produce handloom goods with various colour combinations to suit the changing tastes of consumers. The plan provision is for meeting the expenditure on expansion of existing dye houses and establishment of new ones under the primary weavers co-operative societies.

#### 9. *Training of Weavers*

It is essential to impart training to weavers in advanced techniques of weaving using improved appliances. This will facilitate diversification of production. The plan provision is to meet the expenditure on training including the stipend to trainees.

#### 10. *Training of Employees of Weavers' Co-operative Societies*

The staff employed in the weavers' co-operative will have to be given proper training on efficient working of the societies. The plan provision is for imparting training to the employees in subjects like co-operation, salesmanship etc.

### 11. *Marketing Depots*

This scheme aims at providing financial assistance as tapering grant to primary weavers co-operative societies for opening marketing depots.

### 12. *Handloom Houses*

The plan outlay of Rs. 5 lakhs made for the scheme is for giving assistance to the State Handloom Apex Society for opening new handloom houses within and outside the State.

### 13. *Subsidy for Rebate on Sale of Handloom Cloth*

The accumulation of unsold stock of handloom goods is a major problem facing the handloom industry. Substantial amounts are spent during recent years for granting rebate on sale of handloom cloth and this has helped the primary societies, the Apex Society and Handloom Development Corporation to clear most of their unsold stocks. Government of India assistance is also available for the purpose. The outlay proposed (Rs. 200 lakhs) in the Plan is for the re-imbursment of rebate allowed by the handloom societies and the Handloom Development Corporation on the sale of handloom cloth.

### 14. *Publicity and Propaganda*

Publicity and propaganda are essential for promoting sales of handloom cloth and for attracting the attention of consuming public. The plan outlay of Rs. 35 lakhs is for meeting the expenditure on advertisement through mass media and subsidy for participation of the Primary Weavers' Societies, and Apex Society and the Handloom Development Corporation in exhibitions. It will also include the outlay for taking part in the exhibitions arranged by the Development Commissioner's organisation, Trade Fair Authority etc., both inside and outside the country.

### 15. *Subsidy to Co-operative Banks Against Loss of Interest*

This scheme is for providing subsidy to co-operative banks to recoup the loss of interest incurred by them as a result of making available Reserve Bank of India cash credit to the Apex Society and primary weavers' co-operative societies. An outlay of Rs. 50 lakhs is provided for this scheme.

### 16. *Pilot Centre for Reserve Bank of India Scheme*

The Plan provision is to meet the expenditure on the staff in the Pilot Centres at Trivandrum and Cannanore for the implementation of the Reserve Bank of India Scheme for handloom finance.

### 17. *Grant to State Handloom Weavers' Apex Society*

The provision made in the Plan under this scheme is for giving managerial grant to the State Handloom Weavers' Apex Society.

### 18. *Training of Departmental Personnel*

The Plan outlay is for meeting the expenditure on training given to Departmental Officers in supervisory, co-operative and technical aspects of handloom

industry and business management in various institutions both inside and outside the State.

### 19. *Subsidy for the Cost of Bank Inspectors*

The plan provision of Rs. 5 lakhs is for giving subsidy to the co-operative banks towards the cost of appointing bank inspectors for the implementation of Reserve Bank of India Scheme of handloom finance.

### 20. *Weavers' Common Facility Centre*

The Plan provision of Rs. 10 lakhs is for meeting the expenditure for continuing the common facility service centre at Balaramapuram which is being run by the State Handloom Apex Society and also to set up additional common facility service centres.

### 21. *Share Contribution to Handloom Apex Society*

The Plan outlay of Rs. 40 lakhs is for raising the share capital base of the Handloom Apex Society. Fifty per cent matching contribution by Government of India is also available.

### 22. *Intensive Development Project for Handloom*

Two Intensive Development Projects with a total outlay of Rs. 185 lakhs each were sanctioned to Kerala as Centrally sponsored schemes. The two projects have already started functioning at Cannanore and Trivandrum. The implementation of various schemes like organising factory type weavers' co-operative societies, modernisation of looms of individual weavers, setting up of common facility service centre etc., under the projects are in progress. The scheme now stands transferred to the State sector. An amount of Rs. 216.28 lakhs has already been spent on this scheme. The Plan provision of Rs. 153.50 lakhs is to meet the expenditure required for the completion of the intensive development projects during the Plan period.

### 23. *Revitalisation of Languishing Weavers' Co-operative Societies*

This Plan scheme aims at providing working capital loans to handloom weavers' co-operative societies for revitalisation.

### 24. *Government Participation in the Share Capital of Primary Weavers Co-operative Societies*

In order to bring in more looms into the co-operative fold the share capital base of the primary handloom weavers co-operative societies has to be strengthened. The Plan provision of Rs. 50 lakhs is to meet the expenditure connected with the scheme. A matching assistance is also available from Government of India under this scheme.

### 25. *Mobile Vans and Trucks*

The Plan provision of Rs. 16 lakhs is for issuing grant to the State Apex Society, Handloom Development Corporation, and primary weavers societies for the supply of mobile vans and trucks for delivery and sales of handloom cloth.

26. *Kerala Handloom Development Corporation*

The Plan provision of Rs. 35 lakhs is for share capital contribution by the State Government to the State Handloom Development Corporation. Matching contribution is also anticipated from Government of India.

27. *Renovation of Weavers' Houses*

This Plan scheme is for giving financial assistance for the renovation of weavers' houses. A provision of Rs. 12.5 lakhs is made for this purpose in the Plan.

28. *Managerial Assistance to Primary Handloom Societies*

The scheme is to provide financial assistance towards administrative support to weavers' societies during the Sixth Plan period. Government of India will also make equal matching contribution under this scheme.

29. *Contributory Thrift Fund*

A small percentage of the weavers' wages is deducted as thrift saving by the primary weavers societies. A small contribution is made by Government to the weavers through the primary weavers' societies.

30. *Strengthening of Staff in the Directorate and Sub Offices*

One of the major objectives under handloom development is the co-operatisation of 60 per cent of looms. Implementation of this programme will enhance the workload in the Handloom Directorate and also the District Offices. This will necessitate the strengthening of staff at these offices. The Plan provision of Rs. 10 lakhs is to meet the expenditure on this account.

31. *Training of Scheduled Castes and Scheduled Tribes in Handloom Weaving (Special Component Plan)*

The Plan provision of Rs. 12 lakhs is to meet the cost of training of SC/ST members in handloom weaving. This scheme is part of the special component Plan for Scheduled Castes and Tribes.

32. *Organisation of Handloom Weavers' Co-operative Societies for Scheduled Castes and Scheduled Tribes (Special Component Plan)*

Weavers' industrial co-operative societies exclusively for SC/ST are being organised in all districts of the State. This scheme is also part of the special component Plan for Scheduled Castes. The provision in the Plan (Rs. 30 lakhs) is for financing societies organised by SC/ST.

33. *Award of Scholarships to Children of Weavers*

The Plan provision is to issue stipend to the children of weavers to undergo the Diploma Course in Indian Institute of Handloom Technology at Salem.

34. *Establishment of Market Research, Planning and Monitoring Wing*

Under this scheme it is proposed to continue the existing market research wing in the Handloom

Directorate and to strengthen it to take up the planning and monitoring functions also.

35. *Grant to Write off Bad Debt/Loss of Weak Primary Weavers Co-operative Societies/Central Co-operatives*

This is a scheme sponsored by Government of India to meet the losses incurred by Central Banks due to irrecoverable arrears resulting from lending to weavers' co-operative societies. According to this scheme the loss is to be shared by the Government of India, the State Co-operative Bank and the Central Bank. The outlay provided is the State's share for the scheme.

36. *Assistance to the Kerala State Handloom Weavers Co-operative Society and Handloom Development Corporation to create Yarn Price Fluctuation Fund*

The State Handloom Apex Society and the State Handloom Development Corporation which are responsible for the distribution of yarn to primary weavers' societies and weavers in the private sector often sustain heavy losses due to violent fluctuation in the price of yarn. As a result of this, these agencies could not afford to stock adequate quantity of yarn to ensure continuous flow of raw materials to the weavers even at the time of scarcity. The scheme is to create a fund for subsidising the Apex Society and the Handloom Development Corporation to share such losses.

37. *Creation of Welfare Fund to Weavers*

It is intended to institute a welfare fund for the general uplift of the weavers as a whole in the State. The outlay is for this purpose.

38. *Purchase and Distribution of Looms to Loomless Weavers*

This scheme aims at purchase and distribution of looms to the loomless weavers and replacement of existing worn-out looms. Matching assistance is also available from the Government of India for this scheme.

39. *Award of Prizes to Handloom Fabrics*

In order to encourage the production of new varieties of handloom fabrics, prizes are proposed to be awarded to the weavers' societies.

40. *Interest Subsidy to the Kerala State Handloom Development Corporation*

Working capital finance availed by the Handloom Development Corporation from the commercial banks carry high rates of interest. There has been continuous demand from this institution to provide an element of subsidy to reduce this burden at least to some extent. It is proposed to give subsidy to the Corporation for the purpose during the Plan period.

41. *Establishment of an Institute of Textile Technology (Handloom)*

There is dearth of qualified technical personnel in the handloom sector. It is proposed to establish an Institute of Handloom Textile Technology in the State during the Plan period.

## 42. State Outlay for Institutionally Sponsored Schemes

It is proposed to take up schemes like setting up of ready made garment factories, processing units etc., with World Bank assistance. Also it is proposed to implement certain schemes like opening of showrooms and emporia, setting up of mobile exhibition-cum-sales

units by the Handloom Apex Society and Handloom Development Corporation with IDBI assistance. The NCDC has also approved some new schemes for development of handloom co-operatives. For the above programmes an amount of Rs. 7.50 lakhs is set apart as the State's share.

TABLE—5.21

## Handloom Industry—Scheme-wise Outlay

(Rs. in lakhs)

Name of Scheme/Project	1979-80	1980-81		1980-85		1981-82	
	Actuals	Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Expansion and Organisation of Industrial (factory type) Co-operatives.	7.57	6.00	6.00	70.00	50.00	14.00	10.00
2. Services of Departmental Personnel	0.27	0.50	0.50	2.50	..	0.50	..
3. Modernisation of looms (State share)	4.07	4.00	4.00	15.00	15.00	3.00	3.00
4. Warehouse Loan to Primary Weavers Co-operative Societies	4.08	2.50	2.50	35.00	35.00	7.00	7.00
5. Quality Control	..	0.20	0.20	2.00	..	0.50	..
6. Share Capital Loan to Weavers (State share)	0.94	0.50	0.50	5.00	..	1.00	..
7. Construction of Worksheds/Godown by Apex/Regional & Primary Weavers Society	..	10.00	10.00	90.00	80.00	18.00	15.00
8. Expansion of Dye House and Establishment of New Ones	0.98	1.00	1.00	5.00	3.75	1.00	0.75
9. Training of Weavers	0.58	1.00	1.00	5.00	..	1.00	..
10. Training of Employees of Weavers Co-operative Societies	..	0.05	0.05	2.50	..	0.50	..
11. Marketing Depots	..	0.01	0.01	0.50	..	0.10	..
12. Handloom Houses	..	0.50	0.50	5.00	..	1.00	..
13. Subsidy for payment of rebate on the sale of Handloom Cloth	110.67	40.00	40.00	200.00	..	40.00	..
14. Publicity and Propaganda	1.81	4.00	4.00	35.00	..	7.00	..
15. Subsidy to Co-operative Bank against loss of Interest	12.91	6.00	6.00	50.00	..	12.00	..
16. Pilot Centre for Reserve Bank of India Scheme	..	0.30	0.30	2.00	..	0.50	..
17. Grant to State Handloom Weavers Apex Co-operative Society	..	0.30	0.30	1.00	..	0.25	..
18. Training of Departmental Personnel	0.03	0.15	0.15	0.50	..	0.10	..
19. Subsidy of the Cost of Bank Inspectors	1.54	1.50	1.50	5.00	..	1.00	..
20. Weavers Common Facility Centre	0.44	1.00	1.00	10.00	6.00	2.00	..
21. Share contribution to Handloom Apex Society. (State share)	24.90	7.00	7.00	40.00	20.00	7.00	5.00
22. Intensive Development Project for Handloom	107.11	32.00	32.00	153.50	125.00	40.00	35.00
23. Revitalisation of Languishing Weavers Co-operative Societies	0.10	0.50	0.50	2.50	..	0.50	..
24. Government participation in the share capital of Primary Weavers Co-operative Societies (State share)	8.32	5.00	5.00	50.00	..	9.00	..
25. Mobile Van and Trucks	..	2.00	2.00	16.00	16.00	4.00	4.00
26. Kerala Handloom Development Corporation (State Share)	30.00	7.00	7.00	35.00	30.00	7.00	6.00
27. Renovation of Weavers Houses	1.84	1.17	1.17	12.50	..	2.50	..
28. Managerial Assistance to Primary Handloom Societies (State share)	3.04	3.00	3.00	25.00	..	5.00	..
29. Contributory Thrift Fund	0.57	1.00	1.00	10.00	..	2.00	..

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
30. Strengthening of Staff in the Directorate and Sub Offices	2.00	2.00	2.00	10.00	..	2.00	..
31. Training of SC/ST in Handloom Weaving (Special Component Plan)	0.19	5.00	5.00	12.00	..	3.00	..
32. Organisation of Handloom Weavers Co-operative Society for SC/ST (Special Component Plan)	0.55	15.00	15.00	30.00	25.00	10.00	8.00
33. Award of Scholarships to Children of Weavers	0.06	0.25	0.25	1.00	..	0.25	..
34. Establishment of Market Research, Planning & Monitoring Wing	0.76	1.55	1.55	10.00	..	2.00	..
<i>New Schemes:</i>							
35. Grant to Write off Bad Debt/Loss of Weak Primary Weavers Co-operative Societies Central Coop:	..	1.00	1.00	5.00	..	1.00	..
36. Assistance to the Kerala State Handloom Weavers Co-operative Society and the Handloom Development Corporation to create Yarn Price Fluctuation Fund	..	1.00	1.00	20.00	..	2.00	..
37. Creation of Welfare Fund to Weavers	..	0.50	0.50	5.00	..	1.00	..
38. Purchase and Distribution of Looms to Loomless Weavers (State share)	..	2.00	2.00	10.00	10.00	2.00	2.00
39. Award of Prizes for the Handloom Fabrics	..	..	..	1.00	..	0.25	..
40. Interest subsidy to Kerala State Handloom Development Corporation	..	..	..	10.00	..	2.00	..
41. Establishment of an Institute of Textile Technology (Handloom)	..	..	..	12.00	..	2.00	..
42. State outlay for Institutionally Sponsored (eg. HUDCO, NCDC, IDBI and World Bank) Schemes	0.80	1.01	1.01	7.50	..	2.25	..
Total—Handloom Industry	326.13	167.49	167.49	1019.00	415.75	217.30	95.75

### Powerloom Industry

#### 1. Training to Unemployed Youth in Powerloom Weaving

Training is imparted to the members of the powerloom weaver's Co-operative societies in the State at the Training Centre at Trivandrum. About 100 persons are trained at this Centre annually and a stipend of Rs. 100 p.m. is allowed to the trainees for 3 months. Powerloom complexes are being established in the State with a view to providing employment to the educated unemployed youth. Training facilities have to be provided to the persons who are to be employed in these complexes. The Sixth Plan provision of Rs. 6.85 lakhs is for giving assistance to open training centres attached to the complexes to meet the recurring and non-recurring expenses and also to give stipend to the trainees.

#### 2. Managerial Grant to Powerloom Weavers Co-operative Societies

The outlay of Rs. 7.65 lakhs made in the Plan is for giving managerial grant to the newly organised powerloom weavers' societies as well as existing societies which are not in a position to fully afford the cost of staff.

#### 3. Share participation in the powerloom Weaver's Co-operative Societies

It is proposed to participate in the equity capital of powerloom weaver's societies in order to help them

build up their fixed assets and avail of greater credit facilities. The Plan outlay of Rs. 9.20 lakhs is intended for this purpose.

#### 4. Organisation of Powerloom Weaver's Co-operative Societies

The Plan provision of Rs. 5.30 lakhs is for giving assistance for the purchase of land, construction of buildings, purchase of looms and accessories for the newly organised powerloom weavers co-operative societies.

#### 5. Revival of Dormant Powerloom Weaver's Co-operative Societies

A detailed study is being conducted by an expert team to find out the difficulties faced by the dormant powerloom weavers co-operative societies and to suggest measures to improve the working of these institutions. A plan provision of Rs.5 lakhs is set apart for assisting these societies in their revival.

#### 6. Expansion of Warping and sizing Industrial Co-operative Society.

The plan provision of Rs. 5 lakhs is for giving assistance to the existing warping and sizing industrial co-operative society for modernisation of machinery and expansion of production capacity.

TABLE—5.22

## Powerloom Industry—Scheme-wise Outlay

(Rs. in lakhs)

Name of Scheme/Project	1979-80	1980-81		1980-85		1981-82	
	Actuals	Approved outlays	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Training in Powerloom Weaving	0.10	0.50	0.50	6.85	..	5.70	..
2. Managerial Grant to Powerloom Weavers Co-operative Societies	0.55	0.50	0.50	7.65	..	1.50	..
3. Participation in the Share Capital Structure of Powerloom Weavers Co-operative Societies	1.00	1.00	1.00	9.20	..	6.20	..
4. Organisation of Powerloom Weavers Co-operative Societies	2.53	0.01	0.01	5.30	..	5.30	..
5. Revival of Dormant Powerloom Weavers Co-Operative Societies	..	2.00	2.00	5.00	..	1.00	..
6. Expansion of Warping and Sizing Industrial Co-operative Society	..	1.00	1.00	1.00	1.00	0.30	0.30
Total-Powerloom	4.18	5.01	5.01	35.00	1.00	20.00	0.30

*Khadi and Village Industries*

The Kerala Khadi and Village Industries Board has been implementing programmes relating to Khadi and eighteen other village industries with the financial aid it receives from the Khadi and Village Industries Commission. The State Board is extending financial assistance to Co-operative Societies, institutions registered under the Charitable Societies Act and individuals for the development of khadi and village industries. At present there are about 500 societies and institutions and 3000 village artisans working in this sector. The total number of full time workers engaged in khadi and village industries in the State in 1978-79 stood at 72,214. Also part-time employment was provided to 39,211 persons during the year.

An intensive development programme to provide additional employment to one and a half lakh persons has been launched by the Board. Apart from Khadi, nine village industries are selected for this programme.

These are village pottery, village oil, fibre, lime manufacture, blacksmithy, carpentry, cottage match, cane and bamboo and bee keeping. The Board has initiated its special development programme in several parts of the State. While the normal khadi and village industries programme of the Board will be implemented with the financial assistance of the Khadi and Village Industries Commission, the Board requires State assistance for its special employment programme. A total outlay of Rs. 500 lakhs is required during the plan period for construction of khadi production sheds and for setting up Khadi Bhavans. The financial assistance for the village industries programme to be implemented under the Special Employment Programme will also be met from the Khadi and Village Industries Commission. Hitherto the State Board was getting charkas required for the development of Khadi mainly from outside the State. The Board has already made arrangements for the production of charkas within the State itself. It is expected that the Board would be able to increase the earning capacity of the workers also.

TABLE—5.23

*Khadi and Village Industries—Scheme-wise Outlay*

(Rs. in lakhs).

Name of Scheme/Project	1979-80	1980-81		1980-85		1981-82	
	Actuals	Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Khadi and Village Industries	25.00	50.00	30.00	500.00	..	100.00	..

## Handicrafts

The handicrafts industry in Kerala provides employment to over 40,000 craftsmen. The annual production of handicrafts in the State is of the order of Rs. 4 crores. The major crafts of Kerala include ivory, wood and horn carving, lapidary works, hand embroidery, cane and rattan works, papier mache, coconut shell carving and paddy straw picture making. Some of the crafts provide full time employment while others provide only seasonal employment.

The seasonal nature of employment in the industry is mainly due to the difficulties in marketing the produce. Scarcity of raw materials like wood, ivory and horn has affected the growth in the industry. Many of the craftsmen also stick to the traditional and age old designs which face great difficulty to complete with the ever-changing demands of the market. The craftsmen are quite often exploited by middlemen. Their low earnings have made many of these craftsmen to look for even alternative means of livelihood. The schemes for the Sixth Plan have been drawn up taking into account the problems confronting the industry. The need for strengthening the Handicrafts Corporation is recognised in the Plan. An Artisans Development Corporation is also proposed to be set-up for the promotion of industrial enterprises of village artisans.

The scheme-wise details and outlays proposed under Handicrafts Development are given below:

### 1. Assistance to Co-operatives.

This scheme aims at revitalisation of existing handicraft co-operatives and also organisation of new co-operatives. At present there are 86 working handicraft co-operative societies in the State. These include 12 primary co-operatives and a central society organised in Trichur District in 1974-75 for the revitalisation of lapidary industry. Of the remaining 57 societies, 12 have been organised exclusively for the benefit of the craftsmen belonging to scheduled castes/scheduled tribes. The handicraft co-operative societies provide direct employment to over 6400 craftsmen. The marketing of handicraft products is undertaken by the Kerala State Handicrafts Apex Co-operative Society organised in 1964 at Ernakulam. This Apex Society has at present eight emporia—two at Ernakulam and one each at Trichur, Guruvayoor, Palghat, Calicut, Bangalore and Madras. New emporia are being opened at Kottayam and Bombay so as to have enough outlets for the handicraft items produced in the co-operative sector.

Under the present scheme grant is given to the Handicrafts Apex Co-operative Society and the primary handicraft co-operative societies to meet establishment charges for a Secretary and supervisory technical expert in the initial stages of working. Societies are also eligible for getting lumpsum grant for the purchase of machinery, furniture, tools and equipments, furnishing of emporia, training requirements, publicity etc. During the plan period it is proposed to strengthen the existing handicraft co-operatives and also organise new co-operatives in places where there is concentration of craftsmen. It is also possible to organise co-operatives for taking up non traditional crafts like papier mache, straw picture, coconut shell carving, doll making etc.

by giving training to groups of talented persons. For the above purposes an outlay of Rs. 40 lakhs is allocated in the Plan.

### 2. Kerala State Handicrafts Development Corporation.

The Handicrafts Development Corporation of Kerala Ltd. was organised in 1969 with a view to protecting the craftsmen in the private sector from the exploitation of middlemen. The Corporation buys handicraft products directly from craftsmen offering fair price and sells them through its emporia. The Corporation has two emporia each at Trivandrum and Madras, one each at Ernakulam, Coimbatore, Ooty, Bombay, Delhi and Agra. The State Government have so far taken shares worth Rs. 74.86 lakhs in the Corporation against the present authorised capital of Rs. 100 lakhs. During 1978-79, the All India Handicrafts Board took shares for Rs. 20 lakhs in the Corporation. For improving the sales through the Corporation's emporia it has to increase the stock of handicraft items for which additional working capital is required. To make the Corporation eligible for getting more of working capital its share capital base has to be strengthened and for this purpose the government will provide a capital contribution of Rs. 80 lakhs during the Sixth Plan Period.

### 3. Raw Material Depot for Ivory and Rosewood

The cost of raw materials required by the handicrafts industry in the State has increased many fold during the last few years. In the case of rosewood and ivory the increase is more than ten times. The selling price of handicraft products has not increased proportionately with the result that the average earnings of the craftsmen get reduced. For the continuous growth of the handicrafts sector, it is essential that raw materials are made available to the craftsmen at reasonable prices and in sufficient quantity. To meet this requirement Government has sanctioned opening of a raw material depot at Trivandrum under the Handicrafts Development Corporation and another Depot at Cherpu under the Kerala State Handicrafts Apex Society to cater to the needs of the craftsmen in the co-operative sector. These depots are expected to stock sufficient quantities of raw materials to ensure uninterrupted supply. Since only naturally seasoned wood should be given to craftsmen, the depots will have to stock sufficient quantities of wood. Hence Government sanctioned Rs. 5 lakhs as grant to the Handicrafts Development Corporation of Kerala Ltd. during 1975-76 to be utilised as revolving fund. During March 1979 to March 1980 a similar grant of Rs. 1 lakh every year was sanctioned to the Apex Society. The Handicrafts Development Corporation and the Apex society are the agencies entrusted with the running of the depots on a no-profit-no loss basis and the entire benefit of the scheme is passed on to the craftsmen. The plan provision of Rs. 10 lakhs in the Sixth Plan is to give continued assistance to the Corporation and Apex society.

### 4. Training in Handicrafts

The provision of Rs. 10 lakhs made in the Plan is to meet the advanced training requirements of the craftsmen in the State. There is already a scheme for employing master craftsmen from other states to give specialised training to practising craftsmen in non traditional crafts like papier mache, lacquer ware etc.

The scheme was successfully implemented in the Calicut Pappir Mache Society and the Kilimanoor Handicrafts Co-operative Society to train its members for a period of 12 months. Now the scheme is being implemented in Thodupuzha Handicrafts Co-operative Society. The craftsmen selected by the All India Handicrafts Board are given Rs. 1,000 per mensem. Two more societies will be assisted during 1980-81.

It is also proposed to give advanced training to craftsmen in the co-operative sector to enable them to produce new items. The trainees will be paid stipend during the period of training. Government has already sanctioned such training schemes in the Pinarai Bamboo and Cane Handicrafts Co-operative Society, Cannanore, Polpully Mat Weavers Co-operative Society, Palghat, and Chaithanya Handicrafts Co-operative Society Kottayam. It is proposed to implement such schemes in other selected societies also where such training is required.

5. *Mechanisation and Introduction of Modern Tools and Equipments to Craftsmen at Subsidised Rates.*

In the production of handicraft products, some of the processes involved may not require high skill of the hand. If these processes could be mechanised then the productivity also could be increased. Use of improved tools and equipments also could improve productivity. Under the scheme, 50 per cent of the cost of machinery and improved tools will be given as subsidy to craftsmen subject to a ceiling of Rs. 2,000 per craftsman. An outlay of Rs. 10 lakhs is set apart in the Plan for the scheme.

6. *Old age Pension and Incentive to Individual Craftsmen.*

(a) *Old age Pension*

Old age pension at the rate of Rs. 100 per month is being given to master craftsmen who have contributed to the traditional crafts of Kerala. During 1979-80, 10 craftsmen were awarded pension under this scheme. The scheme is proposed to be continued during the Sixth Plan period.

(b) *Incentive to Individual Craftsmen*

Under this scheme 50 per cent of the cost of tools will be given as subsidy to craftsmen subject to a maximum of Rs. 750 to each. This scheme will also be continued during the plan period.

7. *Share Participation in Primary Handicrafts Societies.*

This scheme was started only in 1978-79. Government can take shares in primary societies upto four times the paid up share capital from members subject to a maximum of Rs. 50,000. This assistance can be utilised for acquisition of fixed assets, more working capital etc. Against a provision of Rs. 2 lakhs an amount of Rs. 4 lakhs was spent on the scheme during 1979-80. Eleven societies were assisted under this scheme. The Sixth Plan provision of Rs. 25 lakhs is for giving continued assistance to selected handicraft co-operative societies.

8. *Industrial Estate for Handicrafts and Handicrafts Complex*

It is proposed to start one industrial estate for handicrafts either at Trivandrum or Trichur. After evaluating the success of the scheme, it can be implemented in the other districts. The proposed estate will cover only the important crafts practised in the area. The scheme can help to provide better and healthy living and working conditions to craftsmen and ultimately improve the quality of production. The Estate is envisaged to provide ancillary services like common facility service centre, raw material depot, marketing assistance, design assistance, improved tools and techniques, finance etc. There can be about 40 to 100 houses (living-cum-work sheds) in the estate. The houses will be allotted to craftsman families who have no land of their own. No rent is proposed to be collected during the first five years since the inception of the scheme.

9. *Kerala State Handicrafts Apex Society*

Kerala State Handicrafts Apex Society was registered in 1964 with Ernakulam as headquarters. Marketing of handicraft products originating in the co-operative sector is the main objective of the apex society. The State Government has already taken shares worth Rs. 8 lakhs in the Society. During 1978-79, the All India Handicrafts Board took shares worth Rs. 2 lakhs. The total paid up share capital of the society is Rs. 12.5 lakhs. The society had a turnover of Rs. 60 lakhs in 1979-80. It has a sales target of Rs. 100 lakhs by 1981-82. To achieve this, it requires further share capital participation from Government.

10. *Incentive to Artisans of Scheduled Castes/Scheduled Tribes for Purchase of Tools and Equipments*

The scheme is to give 100 per cent subsidy to scheduled castes/scheduled tribes craftsmen for purchase of tools and equipments subject to a maximum of Rs. 750 per craftsman. This scheme initiated in 1977-78 is proposed to be continued during the Sixth Plan period.

11. *Subsidy for Raw Materials sold through Raw Material Depots of Handicrafts Corporation and Apex Co-operative Society.*

The State Government has sanctioned a scheme for giving 25 per cent subsidy for raw materials sold to craftsmen through the raw material depots of the Handicrafts Development Corporation of Kerala Ltd. and Kerala State Handicrafts Apex Society to enable craftsmen to get their requirements of raw materials at reasonable rates. This scheme as envisaged at present is restricted to craftsmen covered by the Corporation and the co-operative sector. The provision of Rs. 40 lakhs allocated for the scheme in the Plan is to reimburse the subsidy to the Corporation and the Apex Society.

12. *Craft Museum*

It is proposed to establish a craft museum at Trivandrum where apart from representative collection of traditional handicraft items of Kerala, the museum will have collections from other States of India. The



museum will not only preserve the exquisite and rare pieces of our crafts but will also be a source of inspiration and guidance to the future generation of craftsmen. It is proposed to construct a specially designed building with necessary facilities for displaying the items. The craft museum will be located in the same plot where the new Research-cum-Design Centre will be located.

### 13. *Interest Subsidy*

It is proposed to extend the Reserve Bank of India scheme of finance to handicraft co-operatives also, just as in the case of handloom co-operatives. The finance will be made available to the society at 6½ per cent interest by the district co-operative banks and subsidy will be paid to the banks. The provision is for giving this subsidy to the banks.

### 14. *Revitalisation and Organisation of Handicrafts Co-operatives exclusively for Scheduled Castes/Scheduled Tribes*

The Plan provision of Rs. 12 lakhs is to give Government's share to co-operatives organised exclusively for Scheduled Castes/Scheduled Tribes.

### 15. *Survey of Handicrafts*

The Plan provision is for the conduct of market surveys, spot studies on important crafts and ad hoc surveys.

### 16. *Design, Development and Technical Improvement including Cane and Bamboo*

The Research-cum-Design Centre at Trivandrum at present cover eight crafts viz, ivory, wood, screwpine, dolls, jewellery, bamboo and cane, conch shell and sawdust. The main function of the centre is to evolve new design and new techniques to enable the craftsmen to copy them. It is highly necessary to introduce new items and designs in the market. It is therefore proposed to reorganise and expand the activities of the Centre so that it can play a more effective role in boosting the demand for handicraft products.

### 17. *Propaganda and Publicity*

Every year, one week in the month of December is celebrated as 'All India Handicrafts Week' when special rebates on the sale of handicrafts is given. During this week craftsmen meet, exhibitions etc., are also conducted. The provision is to meet this expenditure and also to meet expenditure on newspaper publicity, assistance to

co-operatives and Handicrafts Development Corporation of Kerala Limited for exhibition and publicity etc..

### 18. *Administration*

The outlay proposed is for toning up the administrative set up for the effective implementation of the handicraft development schemes.

### 19. *Artisans Development Corporation*

It is proposed to set up an Artisans Development Corporation in the State for the promotion of industrial enterprises of the village artisans during the Plan period. The outlay earmarked (Rs. 5 lakhs) is for meeting the initial expenditure required for the project.

### 20. *Setting up of Common Facility Centres*

A Common Facility Service Centre for wood, ivory etc., is working at Trivandrum which is having about 90 craftsmen. It is proposed to increase the facilities available at the Centre and also to increase the number of craftsmen to 250. It is also proposed to start three more fully equipped Common Facility Service Centres, one each at Trivandrum, Trichur and Kasaragode.

### 21. *Documentation*

Kerala is rich in temple carvings, several paintings and folk arts like Theyyam, Pavakoothu and Koodiyattam. It is proposed to document selected temple carvings and folk art figures and also to reproduce these in wood, papier mache etc. This scheme has considerable commercial value because when the figures are commercially reproduced they will have good demand.

### 22. *Market Research*

A systematic development of the State Handicrafts Corporation and the Apex Societies is to a large extent dependent on a study of the market demand for handicraft products. Both these institution should have market research cells. The outlay earmarked is for meeting the expenditure needed for these market research cells.

### 23. *Craftsmen Welfare Scheme*

Under this scheme it is proposed to form guilds of craftsmen and to provide assistance for their activities. It is also proposed to assist the Handicrafts Development Corporation and also the Apex Society to create a Craftsmen Welfare Fund to be used for the welfare of handicraft workers.

TABLE-5.24

## Handicrafts—Schemewise Outlay

(Rs. in lakhs)

Name of Scheme/Project	1979-80		1980-81		1980-85	1981-82	
	Actuals	Approved outlay	Anticipated Expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Assistance to Co-operatives	6.83	3.00	5.00	40.00	..	8.00	..
2. Handicrafts Development Corporation	4.00	4.00	10.00	80.00	80.00	15.00	15.00
3. Raw Material Depot for Ivory and Rosewood etc.	1.00	1.00	1.00	10.00	..	2.00	..
4. Training in Handicrafts	1.42	1.00	1.00	10.00	..	2.00	..
5. Mechanisation and Introduction of Modern Tools and Equipments to Craftsmen on Subsidised Basis	0.81	0.50	1.00	5.00	..	1.00	..
6. Old Age Pension and Incentives to Craftsmen	1.54	0.70	1.00	5.00	..	1.00	..
7. Share Participation in Primary Handicrafts Societies	4.00	2.00	4.00	25.00	25.00	5.00	5.00
8. Industrial Estate for Handicrafts & Handicrafts Complex	..	1.00	10.00	25.00	25.00	5.00	5.00
9. Kerala State Handicrafts Apex Co-operative Society	3.00	1.00	1.00	10.00	10.00	2.00	2.00
10. Incentives to Artisans of S.C./S.T. Purchase of Tools and Equipments	0.99	0.50	1.00	5.00	..	1.00	..
11. Subsidy for Raw Materials sold Through Raw Materials Depot	1.89	4.00	5.00	40.00	..	8.00	..
12. Crafts Museum	..	1.00	5.00	10.00	10.00	2.00	2.00
13. Interest Subsidy	..	1.00	1.00	5.00	..	2.00	..
14. Revitalisation & Organisation of Co-operative Societies Exclusively for S.C./S.T.	..	1.00	1.00	12.00	12.00	5.00	5.00
15. Survey of Handicrafts	..	0.29	0.30	3.00	..	0.50	..
16. Design Development & Technical Improvement Including Bamboo Research Centre	..	1.00	1.00	8.00	6.00	2.00	2.00
17. Propaganda and Publicity	0.70	1.00	1.00	10.00	..	1.30	..
18. Administration	0.17	..	..	2.00	..	0.50	..
19. Artisan Development Corporation	0.55	0.01	0.01	5.00	5.00	1.00	1.00
20. Setting up of Common Facility Service Centre	..	..	..	10.00	10.00	2.00	2.00
21. Documentation and Reproduction of Temple Carving, Folk Crafts etc.	..	..	..	5.00	..	1.00	..
22. Market Research	..	..	..	5.00	..	1.00	..
23. Craftsmen Welfare Fund	..	..	..	5.00	..	1.00	..
Total—Handicrafts	26.90	24.00	49.31	335.00	183.00	69.50	39.00

**Coir Industry**

The State's coir development scheme lays emphasis on bringing the coir workers into the co-operative fold. Though attempts were made since 1959 to organise the workers into co-operatives and to improve their conditions, the desired results could not be achieved for a variety of reasons. The lackness of the foreign markets, competition from synthetic products, displacement of large number of weavers consequent on the closing down of large factories, the entry of middlemen in the co-operatives, exploitation by husk retters and the emergence of merchant exporters contributed to this distress condition in the industry.

Several committees set up by the State as well as the Centre made studies relating to the working of the industry. Comprehensive plans were also drawn up for the reorganisation of the industry. Unless central assistance of a substantial order is forthcoming will be difficult to restructure the industry to the

benefit of nearly 4 lakh workers engaged in the different operations connected with the industry. As the Central assistance is not forthcoming adequately the State Government is making financial investments for the various schemes connected with the restructuring of coir industry. In the Sixth Plan (1980-85) an amount of Rs. 10.70 crores is allotted for coir development programme. The details of the schemes under Coir Development Programme are given below:

(1) *Development of Coir Industry and Husk Control*

A provision of Rs. 60 lakhs is made for meeting expenses towards salary, wages, purchase of vehicles, furniture, rent, travel expenses and other administration charges expected to be incurred in connection with the implementation of the various plan programmes under Coir industry including husk control.

(2) *Interest Subsidy to Primary Co-operative Society*

The State Co-operative Coir Marketing Federation and the viable and potentially viable coir societies

which have switched over to institutional finance have to be given working capital loans at subsidised rates of interest from financing institutions. The plan provision of Rs. 80 lakhs is intended for subsidising the financing banks to make good the loss on interest in extending the financial assistance to coir co-operatives at a concessional rate.

(3) *Opening of Sales Depots*

The provision (Rs. 15 lakhs) is intended for extending financial assistance to manufacturing societies and the Kerala State Co-operative Coir Marketing Federation for opening and running sales depots in and outside the State for marketing the products of coir co-operative societies. The assistance will be provided for the first year for non-recurring expenditure. In respect of recurring expenditure the assistance will be provided for a maximum period of four years.

(4) *Publicity and Propaganda including Trade Exhibitions*

It is necessary to assist coir co-operatives and the Kerala State Coir Corporation in their efforts to promote sales of coir and coir products in and outside the country. These organisations will be subsidised to meet a part of the expenditure for participation in trade fairs and other publicity and sales promotion measures.

(5) *Price Fluctuation Fund*

A provision of Rs. 100 lakhs is made in the Plan as contribution to the Kerala State Co-operative Coir Marketing Federation to augment the price fluctuation fund created by it on the basis of the outright purchases of coir and coir goods made by it from the member societies. This fund will be utilised to meet the possible loss on account of sales made at the time of fluctuations in market price.

(6) *Formation of Coir Projects*

The Plan provision (Rs. 20 lakhs) is intended for expenditure on additional furniture, vehicles etc. for the coir projects through which the coir development scheme is implemented.

(7) *Welfare Measures*

It is proposed to set up nurseries/creches for the benefit of children of coir workers. The cost of construction of buildings, and equipments has to be met and salary and other expenses will have to be subsidised. A provision of Rs. 40 lakhs is made in the Plan for the establishment of few such centres during the period 1980-85.

(8) *Kerala State Coir Corporation—Share Capital Investment*

The Kerala State Coir Corporation, a fully Government owned undertaking, is engaged in production and marketing of coir and coir products. The Corporation is engaged in the setting up of matting project. Other development programmes of the Corporation include starting of coir factories, opening of sales rooms and emporia in metropolitan cities in India, expansion of Beypore Coir Factory and organisation of a Research

and Development Wing. The plan provision of Rs. 100 lakhs is for enhancing the share capital of the Corporation during the Plan period.

(9) *Loans to Kerala State Coir Corporation*

A Plan allotment of Rs. 10 lakhs is made for provision of working capital loans to the Kerala State Coir Corporation.

(10) *Expansion of Coir Co-operatives—Grant-in-aid*

As part of the Coir Development Programme the coir co-operatives in the State are being revitalised. New co-operatives are also being registered. It is necessary to appoint competent managerial personnel to manage the affairs of these societies. This scheme thus aims at extending financial assistance to coir co-operatives to subsidise a part of the cost of managerial personnel for a period of three years on a tapering basis, i.e., 100 per cent in the first year, 66 2/3 per cent in the second year and 33 1/3 per cent in the third year.

(11) *Godowns for Marketing and Primary Societies*

The Plan provision of Rs. 10 lakhs is intended for extending financial assistance by way of grant to coir co-operative societies for the construction of godowns at the rate of 25 per cent of the expenditure.

(12) *Coir Co-operative Societies—Share Capital Participation*

Share participation by Government in Coir Co-operative Societies is made to provide margin money for enhancing their borrowing power. The existing societies and the societies that are to be newly registered during the Plan period are eligible for share participation by Government. A strong equity base is an essential prerequisite for availing institutional finance to the extent necessary. Hence an allotment of Rs. 175 lakhs is made in the Plan for this purpose.

(13) *Loans to Co-operative Societies—Loans for Coir Development*

The provision in the Plan is for giving loans towards need based working capital to the coir co-operative societies. The needs of the potentially viable societies which are not ripe for institutional finance are assessed before providing the loans. An allocation of Rs. 400 lakhs is made in the plan for this purpose.

(14) *Loans for Restructuring of Coir Co-operatives—Godown Construction*

The primary coir co-operatives (including the manufacturing societies and the Kerala State Co-operative Coir Marketing Federation) are eligible for financial assistance by way of loan and subsidy for construction of godowns. The primary societies and Marketing Federation are eligible for the loan at the rate of 75 per cent of the total assistance for each i.e., Rs. 20,000 in the case of primary societies and Rs. 5 lakhs in the case of the Marketing Federation.

TABLE—5.25

## Coir Industry—Schemewise Outlay

(Rs. lakhs)

Name of Scheme	1979-80	1980-81		1980-85		1981-82	
	Actuals	Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Development of Coir Industry and Husk control	5.92	7.50	9.50	60.00	..	10.00	..
2. Interest Subsidy to Primary Co-operative Society	13.97	11.00	15.00	80.00	..	15.00	..
3. Opening of Sales Depots	0.21	4.10	5.10	15.00	10.00	4.00	3.00
4. Publicity and Propaganda including Trade Exhibitions	0.13	3.50	3.50	5.00	..	1.00	..
5. Price Fluctuation Fund	17.03	12.00	15.00	100.00	..	17.00	..
6. Formation of Coir Projects	0.57	2.00	3.00	20.00	..	3.00	..
7. Welfare Measures	5.17	3.00	6.00	40.00	..	7.00	..
8. Kerala State Coir Corporation—Share Capital Investment	..	8.00	8.00	100.00	100.00	8.00	8.00
9. Loans to Kerala State Coir Corporation	12.20	2.40	4.40	10.00	..	2.00	..
10. Expansion of Coir Co-operatives—Grant in Aid	1.50	3.00	3.00	15.00	..	3.00	..
11. Go-downs for Marketing and Primary Societies	0.10	2.50	3.50	10.00	..	2.50	..
12. Coir Co-operative Societies—Share Capital participation	18.00	15.00	30.00	175.00	175.00	30.00	30.00
13. Loans to Co-operative Societies—Loans for Coir Development	57.49	40.00	80.00	400.00	..	70.00	..
14. Loans for Restructuring of Coir Co-operatives—Go-down Construction	4.86	11.00	15.00	40.00	..	7.50	..
Total—Coir Industry	137.15	125.00	200.00	1070.00	285.00	180.00	41.00

*Cashew Industry*

The major problem facing cashew industry is the inadequacy of rawnuts for processing. The total number of workers in the registered cashew factories in Kerala at present is about 1.2 lakhs. The Kerala State Cashew Development Corporation manages 34 factories having over 34,000 workers. The general

problem of raw material shortages affects the working of the Corporation also. As a consequence the workers under the Corporation are able to get employment only about three months in an year. Hence the Corporation is reluctant to acquire new cashew factories. In the Sixth Plan an amount of Rs. 30 lakhs is set apart for share capital participation by the Government in the Corporation.

TABLE 5.25

## Cashew Industry—Scheme-wise Outlay

(Rs. in lakhs)

Name of Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
Cashew Industry	30.00	30.00	30.00	30.00	30.00	..	..

*Bamboo Industry*

The bamboo industry is one of the oldest traditional industries of the State. Over two lakh workers are engaged in the bamboo and reeds industry. Nearly 90 per cent of the bamboo workers are women and children. The formation of the Kerala State Bamboo Corporation with its headquarters at Angamally is one of the important measures initiated by the State Govern-

ment to counter the problems of bamboo workers. This Corporation is entrusted with the responsibility of collection of bamboo and reeds from the forest areas, their distribution to workers and collection and marketing of finished products. At present the activities of the Corporation are localised mostly in and around Angamally. To help bamboo workers in other parts of the State, the activities of the Corporation will have to be expanded. The Corporation has now been made the sole agency directly responsible for the development

of the traditional bamboo industry throughout the State.

The following schemes are included in the plan for 1980-85 for the development of bamboo industry in the State.

### 1. *Strengthening of Capital base of the Bamboo Corporation*

The Kerala State Bamboo Corporation is responsible for maintaining uninterrupted distribution of raw material and marketing of finished products and therefore should have a permanent organisational set up to carry out its operations effectively. The Corporation should have its own administrative block, drying and bundling yards, treatment yards, transportation arrangements, central godowns and other infrastructure facilities at Angamally. Presently the Corporation spends a significant amount by way of rent every year, its own godown capacity being only 2140 M<sup>2</sup>. For the efficient working of the Corporation it is necessary to acquire another 2500 M<sup>2</sup> covered pucca godowns with railway siding. For these various items of investment an amount of Rs. 50 lakhs is provided in the Plan.

### 2. *Opening of Raw Material Depots and Procurement Centres*

A large majority of the traditional workers engaged in the bamboo industry belong to the economically and socially weaker sections of the society. Owing to financial backwardness the bamboo workers will not have sufficient means to stock raw materials and finished products. With the result they are compelled to approach the merchant middlemen and are often exploited by them. In the Angamally-Kalady area alone there are about 20,000 families traditionally engaged in bamboo mat weaving. The Bamboo Corporation has to arrange the equitable distribution of raw materials to the bamboo-reed workers all over the State and the procurement and marketing of finished products. To achieve this objective the Corporation has to establish direct business link with the workers and the consumers through a network of field offices

and sub-centres. The Corporation has at present eight reed collection centres and fifty five reed distribution/mat procurement depots. This is insufficient to meet the requirement of the bamboo workers in the State. It is proposed to extend the activities of the Corporation to other parts of the State where there is a concentration of traditional bamboo workers. One raw material depot and one procurement centre in each district will be set up under the Corporation. To organise these depots it is proposed to place an amount of Rs. 60 lakhs during the plan period at the disposal of the Corporation in the form of a revolving fund. The Corporation, in turn, will have to raise an amount of Rs. 120 lakhs from financial institutions for the successful working of the scheme.

### 3. *Project for Manufacture of Resin-Bonded Bamboo Boards*

The main product of the Bamboo Corporation, viz., bamboo mats, issued mainly as dunnage material. The annual production at present is 80 million sq. ft. of mats. This production is likely to increase further in the coming years, but the consumption of mats is slowly decreasing due to competition from synthetic substitutes. To ensure increased earnings to workers in the industry, it is essential to find new and improved uses for the finished products and also to diversify production. The Corporation has taken up a project for starting commercial production of resin-bonded bamboo boards. This is a competitive substitute for plywoods and finds use in panelling, interior decorations etc. An economically viable unit for producing 5 million sq. ft. resin bonded bamboo boards per annum would require a capital investment of Rs. 120 lakhs. The Corporation intends to set up the project which can commence commercial production by December 1981. A project report is under submission to the Government. A sum of Rs. 60 lakhs is proposed to be invested in the State sector for the project. The required balance amount of Rs. 60 lakhs is proposed to be obtained from financial institutions.

TABLE—5.27

#### *Bamboo Industry—Schemewise Outlay*

Name of Scheme/Project	(Rs. in lakhs)						
	1979-80 Actuals	1980-81		1980-85		1981-82	
(1)	(2)	Approved outlay	Anticipa- ted Expen- diture	Proposed Outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Strengthening of Capital Base of Bamboo Corporation and Provision of Infrastructure Facilities	1.00	1.00	1.00	50.00	50.00	5.00	5.00
2. Opening of Raw Material Depots and Procurement Centres	..	..	..	60.00	30.00	15.00	7.50
3. Project for Manufacture of Resin Bonded Bamboo Boards	..	..	..	60.00	30.00	15.00	7.50
<b>Total—Bamboo Industry</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>170.00</b>	<b>110.00</b>	<b>35.00</b>	<b>20.00</b>

### *Bricks and Tiles Industry*

Bricks and tiles industry in Kerala has to play a vital role in fulfilling the massive programmes of house building activities proposed by the Government and other organisations. Kerala has about 800 hand moulded brick units and about 300 tile units. The industry provides employment to nearly 50,000 persons

in the State. The industry today is beset with numerous problems such as decline in the export market, scarcity and increasing price of raw materials and fuels, disparity in wage rates among tile producing States and high transportation costs. It is therefore necessary to incorporate certain schemes in the Plan for the revival of this industry. The following schemes are suggested for the Plan period 1980-85.

1. *Establishment of process-cum-product Development Centre*

The main objectives behind the setting up of a process-cum-product development centre are provision of testing facilities, analysis of available raw materials, conduct of research to develop new processes etc. The existing technology in the industry is more than a century old. The centre is proposed to be set up under the Small Industries Service Institute, Trichur. The necessary land and infrastructure facilities are expected from the SIDECO.

2. *Assistance to Tile Units*

The tile industry in the State is hampered by obsolete production methods. Hence it is necessary to modernise and diversify production in some selected units by the adoption of improved machinery and technology. The Plan provision of Rs. 3.50 lakhs is for meeting the expenditure towards modernisation and diversification in tile units.

TABLE—5.28

*Bricks and Tiles Industry—Schemewise Outlay*

(Rs. lakhs)

Name of Scheme/Project	1979-80	1980-81		1980-85		1981-82	
	Actuals	Approved outly	Anticipated Expenditure	Proposed Outlay	Capital content	Proposed Outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Establishment of a Process-cum-Product Development Centre		0.10	0.10	0.50	..	0.10	..
2. Assistance to Tile Units		2.00	2.00	3.50	..	0.50	..
3. Introduction of Training Course in Ceramic Technology		0.10	0.10	0.10	..	..	..
Total—Bricks and Tiles		2.20	2.20	4.10	..	0.60	..

*Beedi Industry*

Organisation of beedi workers in Kerala under Co-operatives was started in 1968 when twenty primary beedi societies and one central society were organised, with the financial assistance from the State Government. This action by the Government was necessitated by the closure of prominent beedi factories of Cannanore in November, 1968. Beedies with the brand name "Kerala Dinesh Beedi" were produced by the Co-operatives from 1-3-1969. Today these societies provide employment to nearly 14,000 workers. The central society purchases raw materials like kendu leaves, tobacco, labels and yarn and distribute them to the primaries.

In the Sixth Plan schemes are formulated with a view to assisting the Central Beedi Society at Cannanore by participating in its share capital and the primaries by giving managerial grant and loans for the construction of work sheds. It is also proposed to organise new beedi co-operatives in the State.

A short description of the various plan proposals under beedi industry is given below:—

1. *Share Participation in Central and Primary Beedi Co-operative Societies.*

Kerala Dinesh Beedi Workers' Central Co-operative Society, Cannanore, and the affiliated societies have to be assisted by way of Government share participation

to enable them to acquire more fixed assets and also working funds. A plan provision of Rs. 5 lakhs is made under the scheme.

2. *Managerial Grant to Primary Beedi Co-operative Societies*

The Plan provision of Rs. 5 lakhs is to meet the salary and allowances of departmental officers posted as Secretaries in the Primary Beedi Societies affiliated to the Kerala Dinesh Beedi Central Workers' Co-operative Society.

3. *Financial Assistance for Construction of Work-sheds to Beedi Co-operative Societies*

Most of the beedi workers industrial co-operatives are now working in rented buildings. Loan assistance is proposed to be given to those societies which are having land of their own for construction of factory/work sheds. The Plan provision of Rs. 7 lakhs is for giving such loans.

4. *Setting up of New Beedi Workers' Industrial Co-operatives*

Ten primary beedi workers industrial co-operatives in Trichur, Palghat and Malappuram districts with one Central Society are proposed to be set up during the Plan period. The plan provision of Rs. 20 lakhs is for extending financial assistance to these societies and for meeting spill-over and committed expenses towards Government share contribution, expenditure on staff, loan, grant etc.

TABLE—5.29

## Beedi Industry—Scheme-wise Outlay

(Rs. lakhs)

Name of Scheme/Project	1979-80	1980-81		1980-85		1981-82	
	Actuals	Approved outlay	Anticipated Expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Share Participation in Primary and Central Beedi Societies	1.00	1.00	1.00	5.00	5.00	1.00	1.00
2. Managerial Grant to Primary Beedi Societies	1.50	2.25	2.25	5.00	0.50	2.00	..
3. Financial Assistance to Construction of Work Sheds to Beedi Co-operative Societies	1.00	1.00	1.00	7.00	..	2.00	..
4. Setting up of New Beedi Workers' Industrial Primary & Central Co-operative Societies	2.00	2.00	8.00	20.00	14.40	2.00	1.00
Total—Beedi Industry	5.50	6.25	12.25	37.00	19.90	7.00	2.00

*Medium and Large Industries*

A short description of the schemes proposed to be taken up under medium and large industries in the Sixth Plan is given below:

1. *Kerala Financial Corporation*

The Kerala Financial Corporation plays a significant role in rendering financial assistance to industries in the State. Though the accent is mainly on the development of small scale industries, the Corporation provides assistance to medium scale industrial units also. Ventures like construction of tourist hotels, acquisition of fishing boats, running of service workshops, and acquisition of transport vehicles are also eligible for assistance. Hence it is appropriate to strengthen the capital base of the Corporation by providing more funds so as to enable it to avail of more institutional finance from all India institutions. The Industrial Development Bank of India will provide a matching contribution to Kerala Financial Corporation equal to the share capital contributed by the State Government. An amount of Rs. 200 lakhs is earmarked as State Government capital contribution to the Corporation during the plan period.

2. *Kerala State Industrial Development Corporation*

Kerala State Industrial Development Corporation is engaged in the promotion of large and medium scale industrial units in the State. Financial activities of the Corporation include share capital participation in companies, granting term loans, furnishing guarantees etc. Besides, the Corporation undertakes techno-economic studies, survey of natural resources etc. In 1979, the Corporation prepared a scheme comprising of certain incentives for large and medium units and submitted to the State Government. On the basis of this the Government of Kerala announced a new package of assistance to prospective investors in the State. The Corporation is now doing its best to attract private entrepreneurs from other parts of the country. With this objective in view the Corporation has given shape to a number of projects having economic feasibility and intends to implement them

in the joint sector with the co-operation of private parties. Fifty three new projects are suggested in the Plan proposals for 1980-85, besides expansion of ongoing schemes now being assisted by the Corporation. The Corporation requires an amount of Rs. 20 crores from the State for providing assistance to existing schemes and launching new projects. The various schemes proposed by the Corporation under the Sixth Plan are listed below:

*Existing/Spillover Schemes of KSIDC*1. *Travancore Electro-Chemical Industries Limited*

This company, located at Chingavanam, has sufficient expertise in the manufacture of calcium carbide. It is putting up an expansion unit for the production of 10,000 tonnes of calcium carbide per annum at an estimated cost of Rs. 200 lakhs. The K.S.I.D.C. has sanctioned a loan assistance of Rs. 45 lakhs, of which Rs. 5 lakhs is to be disbursed in 1980-81. An amount of Rs. 3.90 lakhs is also proposed to be given as share capital assistance. Thus an amount of Rs. 8.90 lakhs will be provided to the unit during the Plan period.

2. *South India Wire Ropes Ltd., Edathala*

This company is provided financial assistance by the K.S.I.D.C. for installing certain balancing equipments to expand and diversify its production. An amount of Rs. 1.75 lakhs will be provided to the unit by the Corporation during the plan period.

3. *Travancore Cochin Chemicals Ltd., Udyogamandal*

The Corporation has sanctioned a financial assistance of Rs. 20 lakhs for this company for its scheme relating to production of mercury-free hydrochloric acid. An amount of Rs. 3 lakhs which is pending disbursement will be provided to the unit.

4. *Trichur Cotton Mills, Ltd., Nattika*

The Corporation proposes to give a loan assistance of Rs. 27 lakhs to the Company during the plan period to expand its spindleage capacity. The total cost of this expansion programme is Rs. 65 lakhs.

5. *Chalaky Refractories Limited:*

This company is implementing an expansion cum diversification programme. When the programme is completed in all respects, the Company will have a capacity to manufacture annually 16,800 tonnes of different types of refractory products. The KSIDC is providing loan assistance to the Company. An amount of Rs. 2.5 lakhs will be provided as loan by the Corporation during the plan period.

6. *British Physical Laboratories, Palghat*

This Company has a diversification programme costing about Rs. 60 lakhs for the manufacture of photocopies. The Corporation intends to provide a loan assistance of Rs. 42 lakhs during the plan period to the company for its diversification programme.

7. *Pearlite Wire Products Ltd., Pathirappally*

The Company proposes to augment its capacity for the manufacture of steel wire ropes at a total cost of Rs. 105 lakhs. The Corporation proposes to give a loan assistance of Rs. 10 lakhs for the unit during the plan period.

8. *Vanjinad Leathers*

In order to tone up the operations of this company the Corporation has sanctioned a loan assistance of Rs. 15 lakhs. Of this an amount of Rs. 1.70 lakhs will be provided to the unit in 1980-81. The unit produces finished leathers.

9. *Formalin Products Ltd., Kalavoor*

This new joint-sector company is establishing a 7,500 tonne capacity formaldehyde plant at Kalavoor in Alleppey district, with facilities for manufacturing downstream items like urea formaldehyde resins and hexamine. The KSIDC has both share and loan investments in the Company. The entire scheme involves an outlay of Rs. 110 lakhs. The Corporation intends providing an amount of Rs. 5.90 lakhs for the Company during the plan period.

10. *Balmer Lawrie and Company Limited, Aroor*

This Government of India enterprise aims at manufacturing marine freight containers. It has a licensed capacity of 5,000 numbers per annum. The unit costing Rs. 138 lakhs has reached an advanced stage of construction. The KSIDC has sanctioned a loan assistance of Rs. 47 lakhs and of this Rs. 20 lakhs has already been paid. The balance of Rs. 27 lakhs will be paid to the unit during the Sixth Plan period.

11. *Carbon and Chemicals India Limited, Ambalamedu*

This company promoted by KSIDC is setting up a Rs. 13.5 crore carbon black plant with an annual capacity of 13,700 tonnes per annum at Ambalamedu in Ernakulam District in technical collaboration with a U.S. company. KSIDC has already invested Rs. 77.74 lakhs in the share capital of this joint sector company. Further share capital assistance to the tune of Rs. 45 lakhs will be made by the Corporation in 1980-81.

12. *Midas Rubber Private Limited, Ettumanoor*

This unit will instal additional equipment at a cost of Rs. 45 lakhs. KSIDC will be providing a loan assistance of Rs. 15 lakhs to the Company to expand its capacity for producing rubber compounds.

13. *Kerala Chlorates and Chemicals Ltd., Mavelikara*

The Company registered in the joint sector has set up a plant at Mavelikkara in Alleppey district to manufacture initially 1,000 tonnes of potassium chlorate per annum and an equal quantity of sodium chlorate at a later stage. The total cost of the project is Rs. 90 lakhs. The Company started production of potassium chlorate in April 1980. An amount of Rs. 2.5 lakhs is due for disbursement to the Company by the Corporation.

14. *Wood Systems (India) Private Limited, Thiruvella*

The Corporation is providing share capital as well as loan assistance to this company for setting up a decorative veneer factory with a capacity of 9.75 lakh sq. metres per annum. The cost of the project is estimated at Rs. 57 lakhs. Against its sanction of financial assistance, the Corporation will have to effect balance disbursement of Rs. 13.75 lakhs including share capital (against seed capital assistance of IDBI) of Rs. 2.25 lakhs.

15. *United Veneers Private Limited, Thiruvella*

This new company is setting up a veneer factory at Kaviyoor near Thiruvella with the financial support of KSIDC. The project which is estimated to cost Rs. 55 lakhs will have a capacity to produce 15 lakh sq. metres of decorative veneers per year. The Corporation proposes to give Rs. 10 lakhs as loan to the Company during the plan period. Civil works are in progress and production is expected to commence in 1981.

16. *Hyatkum Exports Limited, Ponnudi*

The Corporation intends to have a share capital investment of Rs. 8 lakhs in this new company registered in the joint sector for setting up a plant for processing and exporting mineral water to the Gulf and other Arab countries. The plant will have a daily capacity to process and manufacture 27,000 bottles of mineral water of 1.5 litre capacity each. The unit is expected to be completed by March 1981.

*New Schemes*1. *Transfusion Fluids*

A new company by name Venad Pharmaceuticals and Chemicals Ltd. has been registered in June 1980 for the manufacture of 9 lakh bottles of transfusion fluids per annum in the joint sector. The cost of this project is estimated at Rs. 40 lakhs. KSIDC is expected to invest Rs. 6 lakhs in this project which is scheduled to be completed during the second half of 1981.

2. *Polyol*

A castroil based polyol plant of 1,000 tonnes per annum capacity is proposed to be established in the joint sector. Indian Space Research Organisation



will provide technology for this purpose, and KSIDC and ISRO have signed an agreement in this regard. This project is estimated to cost Rs. 95 lakhs, of which Rs. 7 lakhs is expected to be provided by KSIDC.

### 3. *Kraft Paper*

KSIDC has examined the scope for establishing a plant for manufacturing kraft paper utilising the studdle straw left off in the paddy fields of Kuttanad etc. A detailed feasibility report has been prepared by a consultancy firm in Bombay and a private party has been identified to set up the project in the joint sector. KSIDC will invest Rs. 15 lakhs in this Rs. 195 lakh project.

### 4. *Mini Paper Plant*

KSIDC proposes to set up a 15 tonnes per day paper plant in the joint sector, for manufacturing kraft, blue match, manifold duplicating copy and air mail papers at an estimated total cost of Rs. 190 lakhs. A private party has been identified and a detailed project report prepared. An amount of Rs. 30 lakhs will be the share of KSIDC.

### 5. *Asbestos Cement Sheets*

KSIDC holds a letter of intent for the manufacture of 36,000 tonnes of asbestos cement sheets per year. The detailed project report has been prepared for the Rs. 245 lakh project to be set up in the joint sector. A private party has been identified. KSIDC will contribute Rs. 21 lakhs for the project.

### 6. *Sanitary Wares*

The detailed project report has been prepared for setting up an economic size plant for manufacturing closets and water cisterns, wash basins, soap dishes etc. in the joint sector. A private party has been identified as co-promoter. The project would cost Rs. 125 lakhs. KSIDC will invest Rs. 10 lakhs in this project.

### 7. *Conveyor Belt*

KSIDC holds a letter of intent for manufacturing annually 6,000 tonnes of conveyor belts of different types including PVC belts. Foreign technical collaboration is envisaged for the project. The estimated cost of the project to be set up in the joint sector is Rs. 24 crores. KSIDC's investment in this project is estimated at Rs. 208 lakhs.

### 8. *Precision Measuring Instruments*

The proposal is to manufacture annually 25,000 vernier instruments, 25,000 micrometres, 10,000 micrometer instruments, 10,000 level and ancillary equipment and 2,000 electronic measuring instruments. KSIDC has received a letter of intent for the project. Technical collaboration with the West German firm has been approved by Government of India. KSIDC's investment in this 4 crore project in the joint sector is expected to be Rs. 36 lakhs.

### 9. *Bone Processing Plant*

Kerala Chemicals and Proteins Ltd., Koratti, in the joint sector proposes to set up a bone processing project as its captive unit. The proposed project is to produce annually 3,960 tonnes of crushed bones,

1,980 tonnes of streamed bone meal etc. and 1,980 tonnes of fat. KSIDC is expected to invest Rs. 8 lakhs in this Rs. one crore project.

### 10. *Fibre Glass Project*

KSIDC holds a letter of intent for setting up a 4,000 tonnes per annum capacity plant in Alleppey district, with foreign technical collaboration. Application for collaboration is under the active consideration of the Government of India. A suitable site for the project has been identified. The project is expected to be completed in phases, the cost of the first phase with a capacity of 3,000 tonnes per annum, being Rs. 870 lakhs. KSIDC will invest Rs. 72 lakhs in this project.

### 11. *Ampicillin Project*

This project as envisaged by KSIDC is to manufacture annually 25 tonnes of ampicillin trihydrate using the technical know-how of Indian Drugs and Pharmaceuticals Limited (IDPL). KSIDC has applied for a letter of intent. The country's demand for ampicillin is partly met by imports which was estimated at 40 tonnes in 1978-79. There is no unit in South India for production of this drug. The cost of the project is estimated at Rs. 195 lakhs. KSIDC's share of investment will be in the order of Rs. 15 lakhs.

### 12. *Chromium Chemicals*

The proposal is that of an existing unit (in the small scale sector) to expand its operations with a view to manufacturing annually 400 tonnes of potassium bichromate, 1,000 tonnes of chromium basic sulphate, 100 tonnes of chromic oxide and 50 tonnes of other chromic pigments. A new company is proposed in the medium sector at a cost of Rs. 98 lakhs. KSIDC's investment will be of the order of Rs. 8 lakhs.

### 13. *Wood Wool Cement Board*

A new company by the name Velton Prefab Elements Ltd. was registered in April 1980 to set up a factory in the joint sector for the manufacture of 4.35 lakh sq. metres of wood wool cement board per annum. Necessary registration and centre's clearance for import equipment have been obtained. Approximate cost of the project is Rs. 107 lakhs. Kerala State Industrial Development Corporation proposes to invest Rs. 8 lakhs in the share capital of the Company.

### 14. *Butenediol*

The proposal is to manufacture annually 2000 tonnes of butenediol, which is required in the manufacture of endosulphan. This product is also used in leather auxiliaries, electroplating chemicals, paper chemicals, especially plastics and intermediates for urethane forms. The project will cost Rs. 530 lakh of which Kerala State Industrial Development Corporation has to invest Rs. 45 lakhs.

### 15. *Pesticides Project*

It is proposed to set up a project for the manufacture of malathion, pentholate and methyl parathion required for field crops. A private party has been identified to promote the project in the joint sector. The estimated cost of this project is Rs. 250 lakhs. Kerala State Industrial Development Corporation will be required to invest about Rs. 21 lakhs in the project.

#### 16. *Pentaerythritol Project*

Kerala State Industrial Development Corporation proposes to manufacture annually 1200 tonnes of pentaerythritol required for the paints and explosives manufacturing industries. Estimated cost of the project is Rs. 150 lakhs. Preparation of a techno-economic feasibility report is being arranged. Kerala State Industrial Development Corporation has to provide Rs. 10 lakhs for this project.

#### 7. *Detonators Project*

The project as proposed by a private party and under the active consideration of Kerala State Industrial Development Corporation is to manufacture 20 million numbers of safety fuses and detonators per annum. The project costing Rs. 90 lakhs is proposed to be completed under a phased programme. Kerala State Industrial Development Corporation will invest Rs. 7 lakhs in the Project.

#### 18. *Vacuum Flask Shells*

Good quality silica sand available in Shertallai region and the comfortable power position of the State offer scope for manufacturing vacuum flask shells. The proposed project is for the manufacture of 10,800 numbers of shells per day. Kerala State Industrial Development Corporation's investment in this Rs. 400 lakh project will be of the order of Rs. 33 lakhs.

#### 19. *Watch Cases (Brass) Project*

Kerala State Industrial Development Corporation proposes to set up a project for the manufacture of watch cases based on second hand import machinery. The Corporation has signed a promotional agreement with a private party to set up the Project in the joint sector. Kerala State Industrial Development Corporation will invest Rs. 17 lakhs in this Rs. 215 lakh project.

#### 20. *Tea Packing Unit*

It is proposed to establish a project in the joint sector for manufacturing 108 million tea bags per year, mostly for export. Kerala State Industrial Development Corporation will invest Rs. 5 lakhs.

#### 21. *Activated Carbon Plant*

Kerala produces large quantities of coconut shells which are not put to use for producing any high valued product. The proposal of Kerala State Industrial Development Corporation is to manufacture superior grade activated carbon, which is currently being imported. The estimated cost of a 1200 tonnes per annum plant is Rs. 450 lakhs. Kerala State Industrial Development Corporation's investment in the project will be to the tune of Rs. 36 lakhs.

#### 22. *Surgical Rubber Goods Project*

The proposal under the active consideration of Kerala State Industrial Development Corporation is to manufacture annually 2.97 lakh numbers of endotracheal tubes (cuffed), 1.33 lakh numbers of endotracheal tubes (plain), 4.09 lakh numbers of ordinary catheters and 3.07 lakh numbers of Ryle's tubes.

The market survey report has already been prepared by a consultancy organisation for the project. Estimated cost of the project is Rs. 260 lakhs. Kerala State Industrial Development Corporation is expected to invest Rs. 21 lakhs in this Project.

#### 23. *Fishing Nets*

With the expanding fishing activity in the State the demand for fishing net is expected to increase considerably in the years to come. A firm in Bombay has offered to give technical know-how for producing fish knitted fabrics from nylon and HDPE. The project envisaged by Kerala State Industrial Development Corporation will have a capacity of 140 tonnes per year. The cost of the project is estimated at Rs. 215 lakhs. Kerala State Industrial Development Corporation's investment in the project will be about Rs. 17 lakhs.

#### 24. *Spices Complex*

The spices grown in Kerala offer considerable scope for setting up an industrial complex for producing spice oils, oleoresins, curry powder, ground spices etc. The Central Food Technological Institute, Mysore has prepared a techno-economic feasibility report for Kerala State Industrial Development Corporation. The Complex envisaged by Kerala State Industrial Development Corporation would cost about Rs. 102 lakhs. The share capital investment of Kerala State Industrial Development Corporation in the Project will be about Rs. 7 lakhs.

#### 25. *Nylon Filament Yarn*

Kerala State Industrial Development Corporation has been working on a proposal for quite some time, for setting up a 2100 tonnes per annum plant, but this project had to be kept in abeyance following Government of India's policy for manufacture of nylon-6. Now that FACT's, proposal for manufacturing caprolactum will possibly get through, the prospects of a caprolactum-based nylon filament yarn manufacturing plant appear to be bright. Kerala State Industrial Development Corporation has applied for a letter of intent for a Rs. 65 crore plant for a capacity of 15000 tonnes per annum in the joint sector. Kerala State Industrial Development Corporation's investment in this project during the Sixth Plan period will be of the order of Rs. 200 lakhs.

#### 26. *Caustic Soda and Poly Vinyl Chloride*

Kerala State Industrial Development Corporation is proposing to set up an integrated unit for the manufacture of caustic soda and PVC. The possibility of having a tie-up arrangement with the Tamil Nadu Industrial Development Corporation for setting up the unit as a joint sector undertaking of the two corporations, is being examined by Kerala State Industrial Development Corporation. Adequate power is available in Kerala, and the essential raw material is available in Tamil Nadu. Kerala State Industrial Development Corporation has already applied for letter of intent for caustic soda. The project would cost Rs. 73 crores. Kerala State Industrial Development Corporation proposes to invest Rs. 163 lakhs during the Plan period in this project.

### 27. *Vinyl Acetate Monomer*

Kerala State Industrial Development Corporation has applied for a letter of intent for setting up a Vinyl Acetate Monomer plant of 5000 tonnes per annum capacity. At present this chemical is imported to a large extent. Since calcium carbide is manufactured by a unit in Kerala, acetylene, the basic raw material for the project, could be obtained from that unit. Estimated cost of the project is Rs. 6 crores. Investment by Kerala State Industrial Development Corporation will be to the extent of Rs. 52 lakhs.

### 28. *Microwave Industrial Heating Equipment*

A new company by the name Microwave Products (India) Ltd. was registered in March 1979 to set up a project for manufacturing annually 160 numbers of microwave industrial heating equipment at an estimated cost of Rs. 110 lakhs. The co-promoter of this project is Eddy Current Controls (India) Ltd., Chalakudy, a joint sector unit of Kerala State Industrial Development Corporation. Investment in the share capital of the new company will be of the order of Rs. 10 lakhs.

### 29. *Printed Circuit Connectors*

O/E/N India Limited proposes to manufacture annually 100 numbers of 33 key boards, 100 numbers of video terminals, 100 numbers of cassette drive, 100 numbers of shoeplug drive and 500 numbers of plinters. A new company has been incorporated for this purpose in the private sector. The cost of the project is estimated at Rs. 54 lakhs. Kerala State Industrial Development Corporation will give loan assistance of Rs. 30 lakhs.

### 30. *Ceramic Fibre Project*

Kerala State Industrial Development Corporation proposes to set up in the joint sector an economic size, 500 tonnes per annum, ceramic fibre plant for which private co-promoter has been identified. The project will cost Rs. 6 crores of which Kerala State Industrial Development Corporation will share Rs. 52 lakhs.

### 31. *Leather Products*

Kerala State Industrial Development Corporation proposes to establish a unit in collaboration with an Italian firm for the manufacture of leather footwear of high quality for export. The capacity of the Rs. one crore project is three lakh pairs of leather footwear. Kerala State Industrial Development Corporation's investment will be of the order of Rs. 9 lakhs.

### 32. *Spun Silk Yarn*

The Kerala Spun Silk Factory Private Limited proposes to instal 900 spindles for producing spun silk yarn from waste silk. Kerala State Industrial Development Corporation is expected to invest Rs. 16 lakhs towards share capital of the company.

### 33. *Mini Paper Plant II*

This is another proposal for setting up a 5000 tonnes per annum paper plant for manufacturing writing and packing paper. The existing demand justifies

another unit of this nature. The cost of this project is estimated at Rs. 220 lakhs. Detailed project report has been prepared. Kerala State Industrial Development Corporation proposes to invest Rs. 19 lakhs in the project.

### 34. *Graphite Products*

Kerala State Industrial Development Corporation has done considerable work in formulating a project based on the graphite ores occurring in certain regions of Ernakulam-Idukki districts. The proposal is to put up a plant to utilise mainly the graphite ores available at Nagapuzha (near Thodupuzha) to manufacture annually 600 tonnes of graphite crucibles, 675 tonnes of graphite flakes and 600 tonnes of graphite powder. The estimated cost of the project is Rs. 250 lakhs. Kerala State Industrial Development Corporation will invest Rs. 20 lakhs in this Project.

### 35. *Watch Jewels*

The proposal is to manufacture annually six million numbers of six different types of watch jewels which are largely in demand in the country. The approximate cost of the Project is Rs. 45 lakhs. Kerala State Industrial Development Corporation proposes to invest Rs. 6 lakhs in this project.

### 36. *Wood Based Units*

An export-oriented unit for making annually about Rs. 250 lakhs worth of items like shutter frames for doors and windows, furniture components and other speciality items, is proposed in the joint sector. The cost of the project is estimated at Rs. 110 lakhs. Kerala State Industrial Development Corporation's share will be of the order of Rs. 9 lakhs.

### 37. *Cocoa Processing Plant*

The proposal of the Corporation is to set up a factory for processing annually 2,000 tonnes of cocoa beans and produce 1,600 tonnes of cocoa liquor, using imported technical know-how. Collaboration with a German Company has been sought. The Project envisages export of cocoa liquor initially. The estimated cost of the project is Rs. 250 lakhs. Kerala State Industrial Development Corporation's investment in this project will be of the order of Rs. 21 lakhs.

### 38. *Lactic Acid Plant*

At present there is only one unit manufacturing lactic acid in the country. This chemical has wide applications in leather, food and pharmaceutical industries. The proposal of the Corporation is to set up a plant for manufacturing annually 300 tonnes of lactic acid using molasses as the main raw material. The cost of the project is estimated at Rs. 80 lakhs and of this Kerala State Industrial Development Corporation will invest Rs. 7 lakhs.

### 39. *Watch Cases Unit*

Stainless steel watch cases are an import substitution and have an assured market. The proposal of Kerala State Industrial Development Corporation is to import second hand machinery for manufacturing this item at the rate of 1.44 million numbers per year. The

cost of the project is estimated at Rs. 300 lakhs. Kerala State Industrial Development Corporation is to invest Rs. 26 lakhs in this project.

#### 40. *Rice Bran Oil Project*

The Corporation has done preliminary work, including assessment of raw material availability for setting up a unit for producing rice bran oil. The capacity of the project will be 30 tonnes per day. Kerala State Industrial Development Corporation's investment in this Rs. 80 lakh project will be Rs. 6 lakhs.

#### 41. *Benzaldehyde Plant*

The proposal is to manufacture chlorine free benzaldehyde which is widely used in perfumery industries and also as an intermediate in pharmaceutical industry. The cost of an economic size plant with a capacity of 500 tonnes per annum will work out to Rs. 65 lakhs. Kerala State Industrial Development Corporation will invest Rs. 8 lakhs in this project.

#### 42. *Phenol Formaldehyde Project*

The Corporation is working on a project for manufacturing phenol formaldehyde moulding powder. The capacity of the project will be 500 tonnes per annum. Kerala State Industrial Development Corporation's investment in this Rs. 40 lakh project will be Rs. 6 lakhs.

#### 43. *Vitamin C Project*

Vitamin C is now being imported through the State Trading Corporation in order to meet the demand in the country. There is considerable scope for setting up a project in Kerala, of 100 tonnes capacity per annum. The cost of the project is estimated at Rs. 407 lakhs. Kerala State Industrial Development Corporation's share in the investment of the project will be Rs. 34 lakhs.

#### 44. *L. P. G. Cylinders*

The increasing use of cooking gas in the place of conventional fuels for cooking purposes creates considerable demand for L. P. G. cylinders not only for new consumers but also for replacement purposes. Kerala State Industrial Development Corporation is working on a proposal of a private party to manufacture 60,000 numbers of L.P.G. Cylinders per year. The cost of the scheme would be about Rs. 65 lakhs. Kerala State Industrial Development Corporation's investment in this joint sector project as envisaged, would be about Rs. 6 lakhs.

#### 45. *Dimethyl Teraphthalate (DMT) Plant*

The proposed expansion scheme of Cochin Refineries Limited for processing the Bombay High crude and the Aromatic Project based on the Cochin Refineries feed stock will lay the path clear for promoting a DMT plant of 59,000 tonnes capacity per annum. The project will cost Rs. 65 crores. Kerala State Industrial Development Corporation has applied for a letter of intent. During the Sixth Plan period Kerala State Industrial Development Corporation has to invest Rs. 200 lakhs in this project.

#### 46. *Chemical Intermediates*

Kerala State Industrial Development Corporation proposes to set up a project for the manufacture of 300 tonnes of novaldamine, 100 tonnes of diethyle malanate and 100 tonnes of methyl formate per annum. Steps are being taken to implement the project in the joint sector. The cost of the project is estimated at Rs. 200 lakhs. Investment of Kerala State Industrial Development Corporation in this project will be Rs. 16 lakhs.

#### 47. *Newsprint project*

The proposal of a private party, which is under active consideration of the Corporation is to set up a 120 tonnes per day newsprint project based on imported raw material. Estimated cost of the project is Rs. 25 crores. Kerala State Industrial Development Corporation's investment in this project during the plan period would be of the order of Rs. 85 lakhs.

#### 48. *Titanium Metal Project*

Apart from the ilmenite sand based products envisaged by the expansion programme of the State-owned Kerala Minerals and Metals Limited at Chavara, there is considerable scope for setting up a project in the joint sector for producing titanium metal. Kerala State Industrial Development Corporation is formulating the scheme for the manufacture of 500 tonnes of titanium metal per year. Kerala State Industrial Development Corporation is expected to invest Rs. 78 lakhs in this Rs. 8 crore project.

#### 49. *High Tension Insulators*

There is considerable demand for high tension insulators for the state electricity boards, and with the implementation of the proposed schemes for power generation in Kerala, additional demand for HT insulators is expected to be generated. The project proposed by Kerala State Industrial Development Corporation involves foreign technical collaboration and negotiations are in progress. A plant with 25,000 tonnes per annum capacity will cost Rs. 500 lakhs. Kerala State Industrial Development Corporation is to invest Rs. 25 lakhs in this project, during the plan period.

#### 50. *Platten Presses*

There has been a continuous increase of small scale printing presses in Kerala in the recent periods. There is scope for establishing an industrial unit for making platten presses required by the small scale printing units. Kerala State Industrial Development Corporation is working on a project with a capacity of 200 numbers of such presses per year. It is expected to cost Rs. 250 lakhs. The Corporation's investment in the project is expected to be Rs. 15 lakhs during the Sixth Plan Period.

#### 51. *Midget Electrodes*

The drycell manufacturing industry requires large number of midget electrodes (carbon rods) and the present production in the country is not adequate to meet the increasing requirement of this item. Kerala State Industrial Development Corporation proposes to set up a medium scale unit, with an approximate cost of Rs. 120 lakhs to produce annually 200 million numbers of such electrodes. Kerala State Industrial Development Corporation will invest Rs. 11 lakhs in the project.

52. *Phytochemicals*

Medicinal herbs such as rauwolfina serpentina, datura, diozera, vinca rosea etc. eminently suited for the development of phyto chemicals, are available on the high-ranges of Kerala. Kerala State Industrial Development Corporation has made preliminary studies on various aspects of collection and organised cultivation of such plants with a view to develop phytochemicals. The project as envisaged by Kerala State Industrial Development Corporation consists of the plants, one for organised cultivation of medicinal plants and the other for producing phytochemicals. The scheme would cost about Rs. 100 lakhs. Kerala State Industrial Development Corporation's investment in the project will be Rs. 9 lakhs.

53. *Automobile Ancillaries*

It is proposed to set up two projects for manufacturing automobile ancillaries, one for mechanical items, and the other, for electrical items. The project for mechanical items only is considered during the plan period. The proposal is to manufacture items like propeller shafts, axle shafts and synchromesh cones (for gear box). The cost of the project is estimated at Rs. 200 lakhs of which Kerala State Industrial Development Corporation is expected to invest Rs. 16 lakhs.

*Other Corporations**Kerala State Textile Corporation*

The Kerala State Textile Corporation seeks to diversify its activities during the plan period 1980-85 by modernising the four textile mills entrusted to it and also by establishing a knitting complex, processing house, central testing laboratory, an elastic project and powerloom complex. It also proposes to start five new spinning mills one each in Trivandrum, Cannanore, Palghat, Alleppey and Kottayam districts. The project wise state sector outlay provided for the Plan Period is given below:

	<i>Rs. lakhs</i>
Modernisation of existing mills	150.00
Knitting Complex	48.00
Processing House	8.00
Central Testing Laboratory	12.00
Powerloom Complex (Under Repartriates Scheme)	10.00
Elastic Project	20.00
Expansion of Warping and Sizing Unit	12.00
Spinning Mill in Trivandrum district	240.00
Spinning Mill in Cannanore District	270.00
Spinning Mills in Palghat, Alleppey and Kottayam Districts	430.00
Total	1200.00

*Kerala Forest Development Corporation Limited*

The Kerala Forest Development Corporation has initiated schemes for the manufacture of Plywood and Veneers, Wooden fixtures and setting up a Wood industry Complex at Nilambur. For the implementation of these schemes during the Sixth Plan Period an amount of Rs. 200 lakhs is allotted in the Plan.

*Kerala State Electronics Development Corporation*

The Corporation started functioning in 1973 as a fully owned Government company. It has twelve associate/subsidiary companies in various districts of Kerala. Keltron group of companies manufacture a wide range of electronic components, equipment and systems. Its product range includes aluminium electrolytic capacitors, piezo-electric crystals, carbon film resistors, colour TV delay lines, ceramic capacitors, TV receivers and systems, calculators, business machines etc and other digital electronic products, voltage stabilizers, electromagnetic counters and special equipment and systems for Defence. The Corporation has also set up a result-oriented Electronic Research and Development Centre, a Testing and Development Centre, a Materials Development Centre and Central Tool Room for the over all benefit of the electronic industry in the State.

As part of its diversification programme to enter into more sophisticated areas in electronics the Corporation has already taken up a number of projects such as control instrumentation systems, micro processor based systems etc and plans to set up new projects in the communication area, besides manufacture of some of the basic raw materials and components. During the Sixth Plan Period apart from the diversification/expansion programmes in the projects directly undertaken by the Corporation, several expansion schemes in the subsidiary/associate companies have also been proposed. Total financial requirement for all the projects envisaged by the Corporation during the Plan period 1980-85 is Rs. 5740 lakhs. The State Government proposes to contribute Rs. 2000 lakhs as share capital contribution to the Corporation during the plan period.

*Kerala State Film Development Corporation*

This Corporation was formed in 1975 for the overall development of Malayalam film industry and for the effective utilisation of the medium of cinema to meet the needs of education and mass communication. For the achievement of these goals the State has to establish a foothold in the fields of production, distribution and exhibition of films. The Schemes of the Corporation like construction of Studio and construction of theatres are well underway and in the Sixth Plan Period it is proposed to complete most of the items of work taken up. The proposals of the Corporation are indicated below:

(i) *Studio Project*

The Scheme envisages construction of a Studio complex in which there would be recording theatres, laboratory and editing rooms, studio floors, rest house and dormitories and also a city office with a preview theatre attached to it. There would also be outdoor film shooting units complete with camera, lights, van etc. It is proposed to implement this Project in two stages. The first stage envisages establishment of one recording theatre, one laboratory, twelve editing rooms, one studio floor, one rest house and a dormitory, city office and outdoor film shooting units. The first stage has almost been completed. The total outlay for the first stage of the project is estimated to be Rs. 420 lakhs of which Rs. 361 lakhs would have been spent by the

end of 1980-81. The studio complex is located at Thriuvallam (11 Km. from Trivandrum) in a 75 acre plot. In the second stage of the Complex (1981-84) it is proposed to add an open floor for film shooting, and additional recording theatre, staff quarters, shopping centre, an additional guest house and a school for acting. The total estimated outlay for the second stage is Rs. 195 lakhs. The Corporation requires as share capital contribution from the State Government an amount of Rs. 254 lakhs for the completion of the first and second stage works relating to the Studio Complex.

(ii) *Theatre Project*

The Corporation intends to create proper facilities for exhibition of films in the State through the construction of good theatres and by exhibiting quality films. During the Sixth Plan period it will construct 12 theatres at an estimated total cost of Rs. 250 lakhs. Of this an amount of Rs. 126 lakhs will be given by the State as contribution to share capital of the Corporation. Altogether an amount of Rs. 380 lakhs will thus be provided as State's contribution.

*Kerala State Industrial Products Trading Corporation Ltd.*

The Kerala State Industrial Products Trading Corporation was incorporated in 1976 for organising the sale of some products of Government Companies. The State Government appointed the Corporation as the sole selling agent for the products of the Travancore Titanium Products Limited. The Corporation is also engaged in the sale of white cement and cement paints produced by Travancore Cements. It intends to take up more items for sales. An amount of Rs. 1 lakh will be provided as share capital to the Corporation during the Plan period.

*The Plantation Corporation of Kerala Ltd.,*

The Plantation Corporation of Kerala Ltd. is the leading public sector undertaking in plantation industry in the State. The Corporation was set up in 1962 with its headquarters at Kottayam. The major objectives of the Corporation are increasing the production of plantation crops and creating additional employment in rural areas. The Corporation is now engaged in the cultivation of rubber and cashew on a large scale. The proposals of the Corporation for the five year period 1980-85 are given below:

(i) *Rubber Plantations*

The Plantation Corporation owns seven rubber estates located in the districts of Cannanore, Kozhikode, Trichur, Ernakulam and Quilon. The total extent of rubber plantations of the Corporation is about 7,500 hectares. During 1980-81 the Corporation is expected to bring under rubber cultivation a total area of 210 hectares 170 hectares in the Tannithode Estate in Quilon district and 40 hectares in the Alakode Estate in Cannanore district. But owing to the difficulties in getting the land for the plantation the Corporation will not be able to achieve this target. However it is proposed to bring a total area of 850 hectares of additional land during the plan period 1980-85 under rubber cultivation. The Corporation has also to maintain the immature rubber trees planted during the years 1976-77, 1977-78 and 1978-79. The scheme relating to rubber plantations will entail an expenditure of Rs. 90 lakhs. This outlay is proposed in the Plan for 1980-85.

(ii) *Cashew Cultivation*

The Plantation Corporation of Kerala owns three cashew estates and the extent of area in these estates is 4,800 hectares. The Corporation has taken up cashew cultivation on a large scale with World Bank assistance under the Kerala Agricultural Development Programme (KADP)

(a) *Maintenance of Immature Cashew Plantations and New Plantations*

For maintaining the immature Cashew Plantations in the existing areas and also for raising new plantations in an area of 478 hectares under an approved scheme, the Plantation Corporation would require an outlay of Rs. 130 lakhs during the Plan period.

(b) *New Cashew Plantations Project (Multi-State)*

The Corporation has a scheme for raising new Cashew Plantations (Multi-State) in a total area of 2275 hectares in Malappuram, Palghat and Cannanore districts. The anticipated expenditure for this scheme is Rs. 180 lakhs.

*Kerala Agro Industries Corporation*

The Corporation is engaged in the promotion of agro-based industrial units in the State. The Kerala Agro Machinery Corporation and Meat Products of India Ltd., are the wholly owned subsidiary corporations of the Kerala Agro Industries Corporation. During the Sixth Plan period the Corporation proposes setting up a few new units besides continuing the operations in its subsidiary corporations. Kerala Agro Machinery Corporation is manufacturing power tillers and other allied agricultural implements which are mainly used by middle class farmers. This Corporation proposes to boost up the production of power tillers and enhance the present target of 1000 numbers to 3000 numbers by 1984-85. As a diversification programme, the Corporation has taken two projects viz; manufacture of diesel engine and mini truck. For the diesel engine project M/s Kubota Ltd., Japan, has agreed to extend technical knowhow. In order to enable the Corporation take up its projects during the Plan period an amount of Rs. 35 lakhs will be provided in the Plan as State's share.

Meat Products of India Limited, another subsidiary of the Agro Industries Corporation, is now engaged in the renovation/replacement of the old machinery in the refrigeration plant at Koothattukulam, development of the campus and construction of livestock farms including completion of the 100 sow units and broiler farm, and expansion of large animal slaughter plant in order to increase the capacity to slaughter 25 cattle per day. The State Government proposes to invest Rs. 75 lakhs in this Company during the Sixth Plan Period.

The Agro Industries Corporation is setting up a fruit processing unit at Punalur. This Project will ensure the processing and marketing of the pineapple now being grown in the State. Investment of the State Government in this Project during the plan period will be Rs. 25 lakhs.

Other projects envisaged by the Corporation to be implemented during the Sixth Five Year Plan Period are cocoa processing unit, pesticides formulation plant, mechanical compost plant, Kraft paper manufacturing unit and an agro industrial complex. The Corporation estimates that these projects would cost over Rs. 15 crores. The State proposes to invest an amount of Rs. 65 lakhs by way of share capital in the Sixth Plan for taking initial steps required in setting up these new projects.

#### *State Farming Corporation of Kerala*

The main objective of this Corporation, which was incorporated in 1972 as a fully Government owned company is to cultivate sugarcane and make it available to the sugar factories of the State. It started cultivation of sugarcane in Shendurni and Nilakkal farms and other areas from 1972. Not long afterwards the Corporation found that sugarcane cultivation is uneconomical. The major reason for the loss is non-payment of dues to this Corporation by Mannam Sugar Mills. The Government of Kerala, after a critical review of the financial position of the Corporation, directed it to diversify its activities by raising crops like rubber, cocoa, coconut, cashew etc., depending on the suitability of the area, in order to make it a viable unit. In pursuance of this Government direction, the Corporation drew up a scheme to raise perennial crops in the permanent farms available with the Corporation. The suitability of the cash crops that could be raised in the farms of the Corporation has been studied by a team of experts from Kerala Agricultural University. The Scheme to be implemented during the Sixth Plan period envisages the raising of rubber in 1600 hectares, and cashew in 300 hectares. Besides these, rehabilitation of cashew plantations in 500 hectares and other crops in 252 hectares is also included in the scheme. Besides Government assistance, the Corporation expects institutional finance for the implementation of the scheme. The State Government proposes to contribute Rs. 75 lakhs to the Corporation during the Plan period.

#### *Industrial Areas*

##### *Industrial Development Areas*

The concept of industrial development areas has gained considerable importance. The availability of suitable areas with necessary infrastructure facilities for the establishment of industrial units not only helps to attract more industries but also enables their dispersal. It is suggested that suitable areas are acquired and developed especially in backward districts. During the Plan period it is proposed to set up a separate agency to acquire land, develop infrastructure and allot to medium and large scale industries. Since the land-man ratio in Kerala tends to be too low, it is all the more important to earmark and develop suitable land for all types of industries. The advantage of a separate agency is that it can raise institutional finance for infrastructure development. A provision of Rs. 500 lakhs is made in the Plan for this scheme.

#### *Departmental Enterprises*

##### *Kerala State Industrial Enterprises*

The Kerala State Industrial Enterprises is a holding company having control and management over the

following subsidiary companies which are fully owned by the Government.

1. Trivandrum Rubber Works Limited.
2. The Kerala Ceramics Limited, Kundara
3. Travancroe Plywood Industries, Punalur
4. Kerala Electrical and Allied Engineering Company, Mamala.
5. Kerala Soaps and Oils Limited, Calicut.
6. Kerala State Drugs and Pharmaceuticals Limited, Alleppey.
7. Kerala Detergents and Chemicals Limited, Malappuram.
8. Kerala Clays and Ceramic Products, Limited, Cannanore.

Besides expansion schemes, several diversification and new schemes are proposed by the subsidiary Companies for implementation during the Plan period. However, only those Schemes which would make a significant impact on the working efficiency and economic viability of these units are considered for inclusion in the Plan. The Holding Company suggests the following schemes for which an amount of Rs. 1200 lakhs for their subsidiaries is proposed towards share capital by the State.

##### (i) *Trivandrum Rubber Works Limited.*

This unit has a scheme for the manufacture of foam rubber lubricators for the use of Indian Railways. The foreign collaboration agreement with M/s. Premier Manufacturing Company U.S.A. has been signed by both the parties. The company expects to produce 2.5 lakh numbers of journal lubricators per annum. Another project for which work has been initiated by the company is the scooter type project. This project has been indentified with a view to diversify into more profitable products utilising the banbury capacity with additions of balancing equipment. A project report submitted by Polymer Consultancy Services is under study. The production capacity envisaged is 75,000 scooter tyres and tubes.

The Company also proposes to produce high pressure hoses and speciality rubber sheets. At present it manufactures only plain rubber hoses of limited length which has only a restricted market. Therefore manufacture of continuous length braided hoses and metal wire braided hoses for high pressure duty will be taken up. Specialised rubber sheets like oil resistant sheets electrical quality sheets, micro cellular sheets etc. will also be taken up. For this purpose M/s. Escon Consultants, Calcutta, have been asked to prepare a project report.

In addition to the above Projects a few diversification/expansion schemes such as installation of another banbury machine and rim unit expansion will be taken up during the Plan Period.

##### (ii) *Kerala Ceramics Limited*

Two modernisation and expansion schemes envisaged by the company are (i) the rationalisation of Kaolin Division and (ii) expansion of Porcelain Division. At present hardly 6000 tonnes of Kaolin per annum is produced in the Kaolin Division against a licensed

capacity of 18,000 tonnes per annum. This is mainly due to limitation of plant capacity at various stages. Work is in progress to increase the production from 500 tonnes per month to 750 tonnes per month. Thus the capacity will increase by 3000 tonnes per annum. This increase will be achieved by parallel actions for acquisition of new mines, mechanisation of mines and providing balancing equipment for processing. Steps have been taken for acquiring new mines in the nearby area and for purchase of new earth moving machinery.

Under the scheme, expansion of porcelain division, the company proposes to expand plant capacity by 1750 tonnes per annum. For the preparation of detailed project report and updating of machinery and production techniques M/s. Sumitomo Corporation, Tokyo, Japan have been identified as technical consultants. As part of expansion programme of the porcelain division, the company is also considering the feasibility of setting up an insulator project.

(iii) *Travancore Plywood Industries*

This Company has already incurred considerable financial investment in implementing its scheme for the manufacture of decorative veneer. All the imported and indigenous machinery for the decorative veneer project have arrived at site. The capacity of the veneer plant will be 2.5 lakh cubic metres per annum. The Company has obtained a letter of indent for the manufacture of particle boards. The capacity of the proposed project will be 12,000 M<sup>3</sup> per annum.

(iv) *Kerala Electrical and Allied Engineering Company Ltd*

This Government-owned company is taking active steps for the revival and development of its switch gear division at Mamala at a total cost of Rs. 20 lakhs. M/s. Jyothi consultants have started work on the study of 8 Amps, 12 Amps, 20 Amps and 40 Amps contractors and starters and the production is scheduled to be stabilised by April 1981. The manufacture of higher ranges (80 Amps, 125 Amps and 250 Amps) is also to be simultaneously taken up and stabilised.

The Kundara division of the company proposes to take up two schemes during the Sixth Plan period viz. manufacture of alternators for general purpose and modernisation of foundry. The alternator section is now increasing its licensed capacity from 600 per annum to 1200 per annum. Besides this, the company will take up the development of alternators for commercial applications. This will involve investment on additional plant and machinery, acquisition of know-how etc. Kundara Division has at present only an old foundry having a production capacity of about 200 tonnes per annum. It has become necessary to conceive an optimum size modern foundry with electric furnace to meet the increasing demand on the existing foundry. Hence a foundry having 1200 tonnes per annum capacity is proposed to be set up by the company. For the diversification of the Olavakkot Division of the company it is proposed to take up the manufacture of carbon film resistors.

(v) *Kerala Soaps and Oils Limited*

This company proposes to raise soap production capacity from 4,300 tonnes to 9,000 tonnes by installation of balancing equipment and to integrate the fish oil hydro-generation plant with the existing unit. The company also intends to take up a project for splitting fatty acid to meet the increasing production plans for soap. The project will also enable the company to achieve economies of scale with regard to production and sale of soaps.

(vi) *Kerala State Drugs and Pharmaceuticals Limited*

The Kerala State Drugs and Pharmaceuticals is the only public sector drug manufacturing concern in the State. This company intends to accelerate the development of two of its on-going schemes viz. Vitamin 'A' project and Aspirin project, and also to set up five new projects during the plan period. The project for the manufacture of 'Vitamin A' from lemongrass oil is under active implementation and all efforts are being made to commission the project by the end of 1981. The Aspirin Project is for the manufacture of salicylic acid, aspirin and sodium salicylate. Foreign collaboration agreement with M/s. Tenneco Chemicals, U.S.A. has been signed and the project report prepared by M/s. Kinetics Technology of India is awaiting Government's approval.

The company also intends setting up of a Research and Development Centre to do research on drugs, the main emphasis being natural medicinal plants. As a first step a proposal has been submitted to the Department of Science and Technology, Government of India for central assistance for an R and D project on lemongrass oil and the improvement of processes.

*Kerala State Detergents and Chemicals Limited,*

The first phase of the existing detergent plant in the company has been in regular production since May 1979. The second phase is under active implementation and is expected to be commissioned by April 1981. The Plan outlay is for the completion of this project.

*Kerala Clays and Ceramic Products Limited*

The glazed tile project and the stoneware project are on-going schemes of this company. The company proposes to take over the Super Clays and Minerals Company (Private) Limited. The project for the manufacture of glazed wall floor tiles has been under consideration, for sometime now. The project profile of 1978 needs updating. Since the Project was initiated with the idea of takeover of Super Clays and Minerals Mining Company (Private) Limited, the project will also depend on the decision regarding the take over. Stoneware Pipe Project is for manufacture of stoneware pipes using interior clay available in Cannanore District. This project is also linked with the take over of Super Clays Company.

The state sector outlays earmarked for the various schemes under Kerala State Industrial Enterprises are provided in Table 5.30



TABLE 5.30

<b>Kerala State Industrial Enterprises Limited</b>			
<i>Scheme-wise State Sector Outlay</i>			
(Rs. in lakhs)			
Name of Scheme	State Sector Outlay		
	1980-'85	1981-'82	
(1)	(2)	(3)	
<b>1. Trivandrum Rubber Works Limited</b>		..	
(a) Journal Lubricating pad	10	5	
(b) Scooter Tyre Project	20	10	
(c) High Pressure Hoses and Speciality Rubber Sheets	12	5	
(d) Rim Expansion and New Banbury	30	10	
Sub Total	72	30	
<b>2. Kerala ceamics Limited</b>			
(a) Rationalisation of Kaolin Division	68	18	
(b) Expansion of Porcelain Division	100	25	
Sub Total	168	43	
<b>3. Travancore Plywood Industries Ltd.</b>			
(a) Decorative Veneer Project	10	10	
(b) Particle Board Project	127	25	
Sub Total	137	35	
<b>4. Kerala Electrical &amp; Allied Engineering Company Ltd.</b>			
(a) Development of Switchgear Division (Mamala)	10	10	
(b) Alternators for General Purposes (Kundara)	20	5	
(c) Modernisation of Foundry (Kundara)	40	10	
(d) Carbon Film Resistor Project, Other Electronic Equipments and Air Circuit Breakers (Olavakkot)	40	12	
Sub Total	110	37	
<b>5. Kerala Soaps &amp; Oils Limited</b>			
(a) Expansion of Hydrogenation Capacity and production Capacity	32	20	
(b) Fatty Acid Splitting Plant	140	..	
Sub Total	172	20	

	(1)	(2)	(3)
<i>Kerala State Drugs &amp; Pharmaceuticals Limited.</i>			
(a) Vitamin 'A' Project		100	..
(b) Aspirin Project		170	40
(c) Research and Development		25	10
Sub Total		295	50
<b>7. Kerala State Detergents &amp; Chemicals Limited.</b>			
Detergent Plant 10,000 TPA			
		74	56
Sub Total		74	56
<b>8. Kerala Clays &amp; Ceramic Products Ltd.</b>			
(a) Glazed Tile Project		160	50
(b) Stoneware Project		12	6
Sub Total		172	56
Total		1200	327

*The Kerala Minerals and Metals Ltd*

The establishment of a titanium dioxide pigment unit and a mineral separation unit are the two schemes which are being implemented by the Company. It also envisages the setting up of a titanium sponge plant.

The project for setting up a plant with capacity for manufacture of 22,000 tonnes of titanium dioxide is under advanced stage of implementation. The total cost of the project is Rs. 65 crores. A consortium of all-India financial institutions comprising the Industrial Development Bank of India, Industrial Finance Corporation of India, Life Insurance Corporation of India, The State Bank of India, and the State Bank of Travancore has agreed to provide term loan assistance of Rs. 45 crores while the equity capital to be provided by the State Government is Rs. 20 crores. Till the end of 1979-80 an amount of Rs. 14.28 crores has been disbursed by the State Government for this project. An amount of Rs. 2.72 crores will be utilised from the budget provision (of Rs. 4.02 crores for Kerala Minerals and Metals Limited) for 1980-81. The balance amount of Rs. 3 crores needed for the pigment project will be met from the budget provision for 1981-82.

Nearly 200 acres of land has been acquired for the project at Chavara in Quilon District. Site levelling, fencing and construction of roads have almost been completed. The construction of buildings is in progress. Orders have been placed for most of the equipments. The construction of railway siding from Karunagappally Station to the site as also construction of railway lines within the plant area is in progress. The financial commitments so far made for the pigment project exceeds Rs. 45 crores. The total expenditure expected during 1980-81 is Rs. 36.28 crores. The anticipated expenditure for 1981-82 is Rs. 18.86 crores. The pigment plant is scheduled to commence production by early 1982.

The other project in which the Company has made progress is the mineral separation unit. The Government has sanctioned in 1974 the Company's proposal to increase the capacity of its mineral separation plant from 25,000 tonnes of ilmenite per year to 2,00,000 tonnes per year. A project report for this unit was prepared by the Company's consultants, Australian Mineral Development Corporation. The Company subsequently decided to take up immediately the expansion of capacity to only 1,00,000 tonnes of ilmenite per year and the project report was prepared accordingly. A total expenditure of Rs. 47 lakhs has already been incurred for the preparation of project report, modernisation of certain equipments, consultancy charges pre-operation expenses etc. Purchase of certain second hand equipments is also under negotiation. The total cost of mineral separation unit is Rs. 9 crores made up of Rs. 2.8 crores equity capital and Rs. 6.2 crores of term loan. An amount of Rs. 1.3 crores will be incurred from the Budget provision for 1980-81. The project will need an amount of Rs. 1 crore in 1981-82 and Rs. 0.50 crore in 1982-83 as State's share.

Another project envisaged under the Titanium Complex at Chivara is the titanium sponge plant. Titanium sponge is required for the manufacture of titanium metal which is required by defence and space departments as also chemical industries. There is however acute scarcity of the metal in international market. Kerala Minerals and Metals Limited has applied for a letter of intent for a titanium sponge plant with an annual capacity of 2,000 tonnes per year. The Company has certain advantages in putting up the titanium sponge plant. The starting material for titanium sponge is titanium tetrachloride which is an intermediate product in the manufacture of pigment in the pigment plant being put up by the Company. There is some spare capacity for titanium tetrachloride and therefore the Kerala Minerals and Metals Ltd, will be able to put up the titanium sponge plant with the minimum capital cost. The Company is taking steps for the preparation of the feasibility report for the project. Mishra Dhadhu Nigam (MIDHANI), a unit under the Defence Ministry of the Government of India, has expressed its willingness to join Kerala Minerals and Metals Limited in putting up the project. MIDHANI has already commissioned a unit for the conversion of titanium sponge into metal. They are now importing titanium sponge. It is expected that after completing the feasibility study and tying up the required collaborations for the technology, the work on the project can be started by 1983-84. The total capital cost for a sponge plant of 2000 tonnes per annum capacity is roughly estimated at Rs. 25 crores. The equity requirement by the State Government will be of the order of Rs. 7 crores. For the Sixth Plan an amount of Rs. 1.50 crores is set apart for this Scheme.

For the different projects of the Kerala Minerals and Metals Limited a total amount of Rs. 10 crores is set apart in the Sixth Plan. The amount required in 1981-82 is Rs. 4 crores.

#### *Sitaram Textiles Limited*

Sitaram Textiles Limited was incorporated in 1975 with a view to modernising the erstwhile Sitaram Spinning and Weaving Mills. This textile unit licenced

to instal 25,000 spindles, started production with 12,500 spindles in May, 1978. It is now in the process of installing the remaining 12,500 spindles. The modernisation programme includes also the setting up of a new processing unit and provision of preparatory and weaving facilities. For the modernisation programme the Company expects soft loan assistance from the Industrial Development Bank of India. The Company requires a share capital assistance of Rs. 35 lakhs from the State Government during the Sixth Plan period for its plan programmes.

#### *Steel Industrials Kerala Ltd*

The Steel Industrials Kerala Ltd. set up by the Government of Kerala in 1975, proposes to establish the following steel based industries during the Sixth Plan period for which letters of intent/DGTD registration have been obtained.

- (i) Structural Fabrication Unit at Shertallai;
- (ii) Steel Forge Plant at Trichur
- (iii) Ship Breaking unit at Beypore;
- (iv) Integrated Castings Unit at Shertallai.

The Structural Fabrication unit at Shertallai planned to process such structures as will be required for steel mills, chemical factories, cement factories, ore handling conveyors, power stations, overhead cranes, water treatment plants for pressure vessels, heat exchangers and other sophisticated structures. A mini structural fabrication unit with an investment of Rs. 25 lakhs has already started commercial production in April 1980. The proposed unit will have a capacity to process 6,000 tonnes of structurals per annum. The proposed outlay on this project during the Plan period is estimated at Rs. 300 lakhs. Of this, the State Government's share will be Rs. 120 lakhs.

The Steel Forge Unit is being implemented at Athani in Trichur District with a capital investment of Rs. 750 lakhs. M/s. India Forge and Drop Stampings Limited, Madras a reputed forging unit in the country have been appointed as technical consultants for the Project. Action has been initiated for placement of orders for machinery. The unit will produce sophisticated medium and heavy weight forgings of high quality using a 10 tonne Air Drop Forging Hammer imported from abroad. State's share in the investment on this project will be in the order of Rs. 300 lakhs.

The Ship Breaking Unit has a capacity to break four ships of about 20000I.DT in an year initially which is expected to increase further in subsequent years. The import of re-rollable scrap in the form of old ships for breaking has been canalised through the Metal Scrap Trade Corporation. Capital outlay proposed during the plan period on this project is Rs. 150 lakhs. An amount of Rs. 60 lakhs is provided in the Sixth Plan as State's share.

A Market Survey and Project cum Feasibility Report has been prepared by M/s. Setly Associates, a reputed consultant in the country for castings for setting up an Integrated castings Unit at Shertallai. The comprehensive proposal has been submitted to Government for sanction. When the Unit is implemented

it will be capable of producing annually 10,000 tonnes of Automotive castings, 4000 tonnes of S. G. Iron castings, 1000 tonnes of Malleable castings and 400 tonnes of miscellaneous steel castings. Capital investment of this project is estimated at Rs. 1305 lakhs. An amount of Rs. 520 lakhs has been provided in the Plan for 1980-85.

For the four projects of the Steel Industrials Kerala Limited, share capital contribution of Rs. 1000 lakhs is proposed by the State.

#### *Malabar Cements Limited.*

Malabar Cements Limited was registered as a public limited company on 11-4-1978 for the purpose of establishing a Cement Plant of 1200 tonnes per day capacity. The project will utilise the abundant limestone deposits at Walayar in Palghat District. The Company has prepared a long-term plan for mining through the Indian Bureau of Mines and a Detailed Project Report for establishing a port-land Cement Plant by Messers Holtec Engineers Private Limited, a reputed firm of consultants in cement industry. Holtec Engineers Private Limited has also been entrusted with the responsibilities for detailed supervision, erection, commissioning and guaranteeing output of this Plant.

The Malabar Cements Company has approached the Industrial Development Bank of India and other financial institutions for the maximum amount of finance for establishing the Unit. The total investment for the project is estimated at Rs. 33.5 crores. Of this an amount of Rs. 7.5 crores will be the share capital participation by the State Government. The balance investment of Rs. 26 crores will be shared by the Industrial Development Bank of India (Rs. 12.5 crores), Industrial Finance Corporation of India (Rs. 3.00 crores), Industrial Credit and Investment Corporation of India (Rs. 2.0 crores), Life Insurance Corporation of India (Rs. 1.0 crore) and Commercial Banks—(Rs. 7.5 crores). The State Government have already made some investment out of its share of assistance for the project. The State will have to provide an amount of Rs. 4.35 crores during the Sixth Plan period—Rs. 2.35 crores in 1980-81 and Rs. 2 crores in 1981-82. The financial institutions are expected to extend their full share of assistance during the Plan period 1980-85. This will enable the undertaking at Walayar to commence commercial production by the end of 1981-82.

The investment outlay anticipated by the Company in 1980-81 is Rs. 21.35 crores of which Kerala Government's share will be Rs. 2.35 crores. The anticipated full assistance from financial institutions like IDBI, IFCI, ICICI, and LIC will also become available for investment during the year. An amount of Rs. 50 lakhs alone is expected from Commercial Banks. In 1981-82 a total financial investment of Rs. 9 crores (Rs. 2 crores as share capital from the State Government and Rs. 7 crores as term loan from Commercial Banks) is expected to be made on the Project.

Considerable headway has been made at the project site in regard to provision of infrastructure facilities like power supply, railway siding, water supply, approach roads etc. By the end of 1980-81 it is expected to complete the first and second phases of railway siding, 75 per cent of civil works, 60 per cent of water supply works and 75 per cent of mines development works. Orders for all long lead items of machinery have already

been placed and delivery of 80 per cent of the items expected by the close of 1980-81. By the end of 1981-82 all works are expected to be completed and commercial production started.

#### *Manufacture of Asbestos Cement Pressure Pipes*

To support the rural water supply schemes being taken up by the State Government, the Preon pipe Factory was asked to explore the possibility of setting up a project for the manufacture of Asbestos Cement Pressure Pipes. The Company has completed preliminary investigations and is engaged in promoting a factory for manufacture of this item. Detailed Project Report is being prepared by the Kerala Industrial and Technical Consultancy Organisation. The cost of the Project as indicated in the preliminary report of KITCO will be of the order of Rs. 750 lakhs. Provision of Rs. 200 lakhs is made in the plan towards share contribution.

#### *Scooters Kerala Ltd.*

This company is engaged in the manufacture of two-wheeler transport vehicles, by assembling components obtaining from Scooters India Ltd. on work and labour basis including cost of paint and other consumables. The Company proposes to expand its productive capacity and set up its own marketing division. An outlay of Rs. 149 lakhs is provided in the Plan as State's share.

#### *Kerala Automobiles Limited.*

Kerala Automobiles Limited, a Government owned Company registered in 1978, has an authorised capital of Rs. 200 lakhs. The Company proposes to manufacture 10,000 three wheelers (175 c.c.) per year with the technical collaboration of Messers Automobile Products of India Ltd. for which the necessary industrial licence has been obtained from the Government of India. The product mix of the Company consists of autorickshaws, delivery vans, pick up vans etc. The total estimated cost of the project is Rs. 546.48 lakhs. Messers Tata Economic Consultancy Service, Bombay has been entrusted with the job of conducting a market survey for the product on an all-India basis.

The unit will require an amount of Rs. 188.12 lakhs for its activities during the years 1980-81 and 1981-82 from the State Government. This outlay will be adjusted against the State's share capital contributions of Rs. 200 lakhs during the plan period. In addition to the State's equity capital of Rs. 200 lakhs, an amount of Rs. 10 lakhs is expected as capital subsidy from the State Government. Also term loans to the tune of Rs. 225 lakhs is anticipated by the unit.

The Project will be implemented in two stages the first stage covering the period September 1982 to August 1985 when the number of units to be manufactured will go up from 1,800 to 4,000 and the second stage covering the period September 1985 to August 1988 at the end of which 8,000 units will be manufactured

The Company has taken possession of 8 acres of land for the project and the Detailed Project Report has been completed. It expects the approval of the DPR by the Government during 1980-81 itself. Construction of factory building, power station, registered office etc. will also be undertaken during the year. Some items of machinery will also be acquired.

A total expenditure of Rs. 108.55 lakhs is anticipated in 1981-82. Of this the State's share will be Rs. 57 lakhs. The major items of expenditure during the year will be construction of factory building and registered office and acquisition of plant and machinery.

#### *Travancore Titanium Products Limited.*

The plan provision is for optimising production of titanium dioxide in this unit. There is need for establishing balancing equipments to optimise production, the present production being much below the rated capacity. The Company will also tap its internal resources for this purpose. It is also taking initial steps to set up a waste acid recovery plant which can treat the wastes profitably to recover the sulphur content and produce sulphuric acid for reuse in the industrial unit.

#### *Travancore Cochin Chemicals Ltd.*

Travancore Cochin Chemicals Limited proposes to set up liquid sulphur dioxide plant, thionyl chloride plant, PVC resin plant, caustic fusion plant and a hydrogen cylindring plant. Besides, the company envisages modernisation of its old caustic soda plant. These schemes would involve large scale capital investment. Most of the proposed schemes are expected to be financed through term loans from financial institutions. A provision of Rs. 40 lakhs is made in the Plan towards strengthening the capital base of the Company.

#### *Transformers and Electricals Kerala Ltd.*

The company is currently implementing its fourth stage expansion scheme. Under this scheme the expansion of capacity of transformers from 3,000MVA to 6,000 MVA, and taking up of manufacture of SF-6 gas circuit breakers is proposed. The programme is expected to be completed by 1982-83. A plan provision of Rs. 5 lakhs is made as State's contribution to the share capital of the Company.

#### *Traco Cable Company Ltd.*

Traco Cable Company has initiated action for the manufacture of 5,000 LKM of jelly filled cables which are in great demand in the posts and Telegraphs Department. The total capital cost of the project excluding working capital requirement has been estimated at Rs. 940 lakhs. Certain items of work like the purchase of land and its development, construction of factory buildings and other infrastructure facilities will be taken up during the current year. Indigenous machinery required will be procured and installed in 1981-82. An amount of Rs. 280 lakhs is allocated in the Plan as share capital contribution to the Company for the plan period. The balance of capital requirements will be met from financial institutions.

#### *The Chalakudy Refractories Ltd.*

The Chalakudy Refractories Ltd. is undertaking an expansion programme to tone up its operations. To place its working on a sounder footing and to enable it to generate profits, it will be necessary to incur additional capital expenditure during the Sixth Plan period. The Company will require an outlay of Rs. 171 lakhs during the plan period for installation of equipments like tunnel kiln (costing Rs. 100 lakhs), gas producer etc. and also for the construction of an administrative block and residential quarters.

#### *Pallathra Bricks and Tiles Ltd.*

The State Government holds 98 per cent of the share capital for this company. Against an authorised paid up capital of Rs. 1 crore, the Company has a capital of Rs. 25 lakhs. The Company is at present engaged in the manufacture of sand lime bricks required for construction purposes. One of the reasons for the poor performance of the Company in the past is the shortage of internal facilities such as sand storing shed, lime processing shed etc. and certain important equipments/devices required for production purposes. These facilities costing Rs. 5 lakhs have to be provided in the unit during the Sixth Plan period.

#### *United Electrical Industries.*

The Company is now producing wide range of electronic components, plastic film capacitors and carbon film resistors. It is proposed to step up the production of meters to the full capacity of 3,24,000 meters. This would involve a total investment of Rs. 80 lakhs. With this investment the turnover from meters is expected to increase from the present level of Rs. 156 lakhs to Rs. 385 lakhs in 1984. An outlay of Rs. 80 lakhs is provided in the Plan, Rs. 60 lakhs as equity and Rs. 20 lakhs as loan, for this project.

#### *Travancore Cements Limited*

This company proposes to take up an expansion scheme for increasing white cement production to the licensed capacity of 50,800 tonnes per annum. Currently the production is only about 35,000 tonnes per annum. Total capital outlay for the proposed project is estimated at Rs. 200 lakhs. A provision of Rs. 5 lakhs is provided in the plan towards strengthening the capital base of the company.

#### *Travancore Sugars and Chemicals*

The proposal is to set up a distillery unit, the cost of which is estimated at Rs. 20 lakhs. A provision of Rs. 1 lakh is made in the plan towards share capital so that the company can avail of necessary institutional finance for the project.

#### *Other Schemes*

##### *Management Development Centre*

A centre for Management Development was set up in 1979 to provide training in various disciplines of industrial management to the management personnel of the public and private sector enterprises. The centre is organising training programmes on a regular basis. The activities of the Centre are proposed to be expanded considerably during Plan period. For this purpose a provision of Rs. 25 lakhs is made in the Plan.

##### *ENCOS—Taking Over and Revival*

According to the Engineering Technicians Co-operative Societies (Acquisition and Transfer of Undertakings) Act, 1977 (Act 20 of 1977) all the undertakings of the societies under ENCOS stand transferred to and vested in the State Government. Funds are required for discharging the financial liabilities and obligations cast on the Government under the above section of the Act. It is also necessary to meet the

current liabilities such as Provident Fund dues, payment of salaries etc. to the skeleton staff of ENCOS units and head office. Hence an outlay of Rs. 3 lakhs is provided in the Plan for this purpose.

#### *Mannam Sugar Mills Co-operative Limited*

An amount of Rs. 1 lakh is provided in the Plan for the unit to initiate action for the rehabilitation of the unit.

#### *Co-operative Spinning Mills at Quilon and Malappuram*

Steps have already been taken to establish two spinning mills having 25,000 spindles each, in the co-operative sector, one at Quilon and another at Malappuram. Works on the projects are nearing completion and the Mill at Malappuram has started commercial production of cotton yarn in March, 1980. This mill now proposes to instal 5,000 more spindles during the Plan period. The provision of Rs. 250 lakhs made in the Plan is for strengthening the capital base of these mills.

#### *Cannanore Co-operative Spinning Mills*

This mill has taken up active steps to modernise its existing unit and instal additional spindles. The spindle capacity of the Mill at present is 28,000. It is proposed to instal 22,000 additional spindles in five stages. Total outlay for the proposed schemes during the Plan period is Rs. 470 lakhs. Of this Rs. 229 lakhs is expected from the State Government, Rs. 114 lakhs as equity and Rs. 115 lakhs as loan.

#### *Co-operative Sugars, Chittur*

An amount of Rs. 3 lakhs has been provided in the plan towards strengthening the capital base of the Company in order to enable it to avail of institutional finance for its future programmes.

#### *Foam Mattings India Ltd.*

Foam Mattings (India) has been incorporated in 1978 as a Government owned company with a capacity to manufacture 3.6 million sq. metres of rubber backed coir mattings per year. The Company envisages setting up of a matting factory and diversification of its product line by starting a Brown Fibre Unit, P.V.C. Backed Tufted Carpet unit and a Needle Felt Coir Carpet unit. Active steps have been taken for the establishment of the matting factory. It is planned to erect 24 modern handlooms for the manufacture of 4 metre wide mattings. Total cost of these schemes is estimated at Rs. 522 lakhs. The Company expects financial assistance from IDBI, IFCI and ICICI. An amount of Rs. 200 lakhs is proposed as State sector outlay in the Plan.

#### *Special Refractory Project*

The Kerala State Industrial Development Corporation holds a letter of intent for manufacturing 12,000 tonnes of special refractory products, required mostly by steel industry. The proposal is to set up the project in technical collaboration with a Soviet firm and with the engineering assistance of MECON. KSIDC's application for technical collaboration is under consideration of the Government of India. The project is estimated to cost Rs. 14 crores. The State Government will have to provide Rs. 255 lakhs towards share capital contribution for the project.

#### *White Cement Project*

Detailed surveys conducted by the State have revealed the occurrence of large deposits of lime shell in the Payyannur region of Cannanore district. The possibility of establishing a white cement manufacturing plant is under investigation and in this context the Corporation has appointed a consultancy firm to study the feasibility of mining the deposits. A 50 tonne per day cement plant may cost about Rs. 350 lakhs. Provision for investment to the tune of Rs. 62 lakhs is made in the Plan.

#### *Aluminium Smelter*

The Geological Survey of India has estimated the bauxite reserves in Kerala at 9 million tonnes, of which 7 million tonnes are in Nileswar region of Cannanore district. Kerala is also in an advantageous position in respect of power generation. The KSIDC has engaged Messers HINDALCO to do a techno-economic feasibility report on aluminium smelter based on the Nileswar bauxite deposits. There is a net work of units in the State consuming aluminium metal in its various forms but are often handicapped by shortage of the metal. The project might cost about Rs. 50 crores, but a major portion of the investment will spill over to the subsequent plan period. However an amount of Rs. 510 lakhs is proposed as State sector investment on this project during the Sixth Plan period.

#### *Abattoir Project*

Considerable emphasis is being laid by the Government of India on the reorganisation and modernisation of slaughter houses as also on the establishment of carcass utilisation plants in different States. A major recommendation of a study group constituted by the State Government to go into the question of improvement of slaughter house operations is the setting up of a few modern slaughter houses in selected centres to produce wholesome meat for human consumption. By-products utilisation plant can also be set up on a phased manner. The Kerala State Industrial Development Corporation has a proposal to set up a modern slaughter house (abattoir) in one of three cities of Kerala to start with, so as to process daily 800 large cattle and 7000-8000 small cattle. The Corporation has applied for a letter of intent and has also started negotiation with Indian as well as foreign firms for technical assistance. The scheme contemplated by the Corporation will include also facilities for collaboration and preservation of by-products and for their further utilisation. A major portion of the meat produced in the proposed abattoir will be exported. This scheme proposed in the State sector will cost about Rs. 12 crores. The approximate investment by the State in the project will be Rs. 200 lakhs.

#### *State Investment Subsidy*

Under the package of incentives announced in April 1979 the State Government will provide 10 percent of capital subsidy needed by the new industrial units set up in the State. For the provision of investment subsidy to large and medium industrial units that will be set up during the Sixth Plan period an amount of Rs. 700 lakhs is set apart in the Plan.

*Interest-free Sales Tax Loan*

This scheme aims at giving reimbursement of sales tax paid by large and medium units as loans to these units for a period of three years based on proper certificates from sales tax authorities. An amount of Rs. 200 lakhs is allocated for this scheme in the Plan.

*Feasibility Reports/Project Reports*

A major incentive to large and medium units announced in April 1979 is that 50 percent of the cost of preparation of feasibility/project reports will be borne by the Government. The Kerala State Industrial Development Corporation is operating this scheme. An outlay of Rs. 25 lakhs is earmarked for this scheme in the Plan.

TABLE 5.31

**Medium and Large Industries - Scheme-wise Outlay**

(Rs. in lakhs)

Name of Scheme	1979-80		1980-81		1980-85		1981-82	
	Actuals	Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
<b>A. State Financial Corporation</b>								
1. Kerala Financial Corporation	5.00	15.00	15.00	200.00	200.00	50.00	50.00	
<b>B. State Industrial Development Corporation</b>								
2. Kerala State Industrial Development Corporation	130.00	135.00	135.00	2000.00	2000.00	160.00	160.00	
<b>C. Other Corporations</b>								
3. Kerala State Textile Corporation	32.71	130.00	130.00	1200.00	1200.00	377.00	377.00	
4. Kerala Forest Development Corporation	10.00	10.00	10.00	200.00	200.00	25.00	25.00	
5. Kerala State Electronics Development Corporation	393.00	450.00	450.00	2000.00	2000.00	500.00	500.00	
6. Kerala State Film Development Corporation	80.00	80.00	80.00	380.00	380.00	147.00	147.00	
7. Kerala State Industrial Products Trading Corporation	3.00	..	..	1.00	1.00	0.20	0.20	
8. Plantation Corporation of Kerala	20.00	15.00	15.00	400.00	400.00	75.00	75.00	
9. Kerala Agro Industries Corporation	25.00	10.00	10.00	200.00	200.00	30.00	30.00	
10. State Farming Corporation of Kerala	81.22	25.00	25.00	75.00	75.00	25.00	25.00	
Sub Total (C)	644.93	720.00	720.00	4456.00	4456.00	1179.20	1179.20	
<b>D. Industrial Areas</b>								
11. Industrial Development Areas	10.00	20.00	20.00	500.00	500.00	100.00	100.00	
<b>E. Departmental Enterprises</b>								
12. Kerala State Industrial Enterprises	80.00	225.00	225.00	1200.00	1200.00	327.00	327.00	
13. Kerala Minerals & Metals Ltd.	573.00	422.00	422.00	1000.00	1000.00	400.00	400.00	
14. Sitaram Textiles Ltd.	15.00	35.00	22.57	35.00	35.00	..	..	
15. Steel Industrials Kerala Ltd.	45.00	255.00	255.00	1000.00	1000.00	400.00	400.00	
16. Malabar Cements Ltd.	300.00	235.00	235.00	435.00	435.00	200.00	200.00	
17. Manufacture of Asbestos Cement Pressure Pipes	..	..	..	200.00	200.00	25.00	25.00	
18. Scooters Kerala Ltd.	..	1.00	1.00	149.00	31.75	15.00	15.00	
19. Kerala Automobiles Ltd.	5.88	20.00	20.00	200.00	200.00	57.00	57.00	
20. Travancore Titanium Products	..	10.00	10.00	50.00	50.00	10.00	10.00	
21. Travancore Cochin Chemicals	10.00	40.00	40.00	40.00	40.00	..	..	
22. Transformers & Electricals Kerala	..	5.00	5.00	5.00	5.00	..	..	
23. Traco Cable Company	8.00	35.00	35.00	280.00	280.00	50.00	50.00	
24. Chalakudy Refractories	5.00	5.00	5.00	171.00	171.00	16.00	16.00	
25. Pallathra Bricks & Tiles Ltd.	1.00	1.00	1.00	5.00	5.00	1.00	1.00	
26. United Electrical Industries	14.59	22.00	22.00	80.00	60.00	20.00	15.00	
27. Travancore Cements Ltd.	..	5.00	5.00	5.00	5.00	..	..	
28. Travancore Sugars & Chemicals	..	..	..	1.00	1.00	0.30	0.30	
Sub Total (E)	1057.47	1316.00	1303.57	4856.00	4718.75	1521.30	1516.30	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>F. Others</i>							
29. Management Development Centre	1.00	5.00	5.00	25.00	25.00	5.00	5.00
30. ENCOS—Revival & Taking over	3.00	2.00	2.00	4.00	4.00	1.00	1.00
31. Mannam Sugar Mills Co-operatives	8.00	1.00	1.00	1.50	1.50	..	..
32. Starting of New Co-operative Spinning Mills (Quilon & Malappuram)	266.10	20.00	20.00	250.00	250.00	25.00	25.00
33. Cannanore Co-operative Spinning Mills	5.00	15.00	15.00	229.00	114.00	25.00	25.00
34. Chittur Co-operative Sugars	..	2.00	2.00	3.00	3.00	..	..
35. Foam Mattings India Ltd.	1.00	20.00	20.00	200.00	200.00	22.00	22.00
36. Special Refractory Project	..	2.00	2.00	255.00	255.00	5.00	5.00
37. White Cement Project	..	1.00	1.00	62.00	62.00	2.00	2.00
38. Aluminium Smelter	..	1.00	1.00	510.00	510.00	3.00	3.00
39. Abottoir Project	..	2.00	2.00	200.00	200.00	2.00	2.00
40. State Investment Subsidy for Large and Medium Industries	..	40.00	40.00	700.00	700.00	75.00	75.00
41. Sales Tax Loan	..	20.00	20.00	200.00	..	50.00	..
42. Preparation of Feasibility Reports	..	..	..	25.00	..	5.00	..
Sub Total (F)	285.35	154.00	154.00	2689.50	2349.50	220.00	165.00
Total—Medium and Large Industries	2132.75*	2360.00*	2347.57*	14701.50*	14224.25*	3230.50	3170.50

\* The outlay includes provision for the schemes:

- (1) Petrochemical Project
- (2) Kerala Industrial and Technical Consultancy Organisation
- (3) Loss on the Liquidation of the Travancore Enamel Industries, Kundara
- (4) Metal Industries, Shoranur and
- (5) New Project for precision measuring instruments.

### Central Sector Schemes

Considering the industrial backwardness of Kerala, the Centre should locate a number of major industrial units in Kerala during the Sixth Five Year Plan period. The centre is justified in giving a special treatment to Kerala in the matter of central sector investment in view of the acute problem of unemployment prevailing in the State. The degree of development reached in infrastructure facilities like cheap power, educated and skilled Personnel and a good transport system also justify a larger central sector investment in industries. The State has already suggested several industrial projects for the consideration of the Centre. A short description of some of the prospective central sector units is given below:

#### 1. Caprolactum Plant

There is considerable scope for setting up a caprolactum plant in view of its importance in creating a network of employment oriented schemes in the medium and small scale sector. Caprolactum is the basic raw material for the manufacture of nylon 6 which itself is required for making fishing nets, tyre cords, nylon filament yarn etc. The Fertilisers and Chemicals Travancore Ltd., has a proposal to establish a caprolactum plant as part of their diversification programme FACT's proposal is to establish a 50,000 tonnes per annum caprolactum plant. This proposal holds the key to revive the overall operations of the company. The Project would involve a total investment of Rs. 150 crores.

#### 2. Aromatic Complex

The proposal is to set up an industrial complex based on the aromatic rich naphtha from Cochin Refineries Limited to extract annually 71,000 tonnes of benzene, 39,500 tonnes of paraxylene and 5,000 tonne of orthoxylene. With the implementation of the Proposed fluid catalytic cracking unit of Cochin Refineries Limited, adequate quantity of naphtha for the proposed aromatic complex will be available. The project has a special relevance to the economy of the State mainly because of its efficiency in generating a network of down stream projects. The Cochin area holds several infrastructural advantages for sustaining the project. The Kerala State Industrial Development Corporation has applied for a letter of intent which is expected to be favourably considered by the Central Government. The proposed aromatic complex is expected to cost Rs. 79 crores.

#### 3. A Unit of Indian Drugs and Pharmaceuticals Ltd.

The Indian Drugs and Pharmaceuticals Ltd., may consider the inclusion in their Sixth Plan Programmes a scheme for setting up an unit in Kerala. A synthetic drug manufacturing unit can be set up in the State at a cost of about Rs. 10 crores. This would considerably influence the growth of drugs industry in the State.

#### 4. A Unit of Hindustan Antibiotics Limited

It is suggested that the Hindustan Antibiotics Limited may set up either an anti-biotics or a formulation plant in Kerala. While meeting part of

the increasing demand for anti-biotics and other drugs in the country, it will also encourage the industrial development of Kerala. A Central Sector investment of Rs. 25 crores will be required in the Sixth Plan for this unit.

#### 5. *Ordnance Factory*

The Central Industrial Organisations and Departments can considerably help to bring about more of central investment in the industrially backward Kerala State. The Ministry of Defence, for example, can think of setting up an ordnance factory in Kerala as part of their programme to enhance defence production. An amount of Rs. 10 crores is suggested as central sector outlay for an ordnance factory to be set up in Kerala during the plan period.

#### 6. *Wagon Factory*

The State Government has all along been pleading with the Central Government for setting up a Railway Wagon Factory in Kerala taking into consideration the various facilities available in the State. Suitable sites for such a factory are available especially in the Palghat district. Therefore during the Sixth Plan period a large scale Wagon Factory for the production of railway wagons is expected to be set up in the State. Investment of the order of Rs. 50 crores will be required for this purpose.

#### 7. *Phenol and Acetone*

The Hindustan Organic Chemicals Limited proposes to set up a phenol plant at Cochin at an estimated cost of Rs. 53 crores. This plant is expected to have a capacity to manufacture annually 40,000 tonnes of phenol and 24,640 tonnes of acetone.

#### 8. *Fluidised Catalytic Cracker Unit*

It is proposed to set up a Fluidised Catalytic Cracker Unit in the Cochin Refineries Limited at an estimated cost of Rs. 35 crores. The Cochin Refineries Limited is taking steps to implement this scheme.

#### 9. *Other Projects*

In addition to the above projects, several other units are likely to come up under the Central Sector during the Sixth Plan period. Expansion of some of the existing Central Sector Projects is also envisaged.

The Modern Bakeries (India) Ltd., is considering the establishment of a plant for processing cocoa beans with a daily production capacity of 5 to 10 tonnes of cocoa butter and cocoa powder in Edappally, Cochin, during the Plan period. The know how for manufacture of cocoa mass is being obtained from the Central Food Technological Research Institute, Mysore. Foreign technology will have to be obtained for production of cocoa butter and cocoa powder. The total cost of the project will be of the order of Rs. 50 lakhs.

The Indian Telephone Industries Limited, Palghat, has drawn up expansion schemes costing Rs. 11.16 crores during the Sixth Plan period. For the continuing schemes of the unit an amount of Rs. 20 lakhs will be needed during 1980-85. In addition the industry has phase II and phase III expansion schemes. The phase II expansion scheme aims at production of 60,000 lines per annum by 1983-84. The Palghat unit of ITI was set up in 1974 to manufacture small electronic exchanges of capacities ranging from 25 lines to 100 lines of PAXs, PABXs and SAXs. The present capacity of the Palghat Unit is 10,000 lines per annum in single shift and 17,500 lines in two shifts. During the Sixth Plan period, the unit is to be expanded to manufacture 60,000 lines of electronic exchanges per annum. The estimated capital requirement for this phase of expansion is Rs. 96 lakhs.

Under the Phase III expansion programme the Palghat Unit is further proposed to be expanded to manufacture 30,000 lines of digital trunk automatic exchanges (TAXs), 50,000 lines of electronic rural automatic exchanges (RAXs) and 40,000 lines of small medium electronic exchanges (PABXs/PAXs). In terms of effort, this is expected to be 1.5 lakhs equivalent lines and the entire phase III expansion is scheduled between 1981-82 and 1984-85. This expansion will involve an investment of about Rs. 10 crores. This capacity is proposed to be set up with foreign technical collaboration. The additional manpower requirement for phase III expansion is anticipated to be about 1,000. The investments proposed for the two expansion schemes are to be financed on a debt equity ratio of 2:1 for Phase II and 1.5:1 for Phase III. The investments proposed are covered by Central Sector investment.

The Cochin Shipyard Limited has also drawn up expansion schemes which will necessitate a total investment of about Rs. 56 crores during the Sixth Plan period, 1980-85. The estimated cost of expansion of dock and shops and creation of other facilities is Rs. 47 crores. For the expansion of the Repair Quay (Quay-1) an amount of Rs. 5 crores will be needed. A scheme for constructing 500 houses for housing the employees of the shipyard and barracks for the Central Industrial Security Force personnel will cost about Rs. 4 crores. All these expansion schemes of the Cochin Shipyard will help to provide permanent direct employment to 3200 persons and temporary employment to 2600 persons.

The work relating to the Kerala Newsprint Project, a unit of the Hindustan Paper Corporation Limited, is in progress and the unit is in the final stages of implementation. The Project is expected to be Commissioned by the middle of 1981. Already a total investment of Rs. 110 crores is made on the Project and during 1981-82, a total amount of Rs. 25 crores will be spent. This Project will generate direct employment of the order of 2,000 for skilled, semi-skilled and unskilled personnel.



TABLE 5.32

Central Sector Industrial Projects—Investment and Employment Potential

Name of Project	Production Capacity	Location (District)	Central Sector Investment (Rs. crores)	Employment Potential
(1)	(2)	(3)	(4)	(5)
1. Caprolactum Plant (FACT)	50,000 TPA	Ernakulam	150.0	600
2. Aromatic Complex—Benzene, Orthoxylene, Paraxylene	1,15,500 TPA	Ernakulam	79.0	500
3. A Unit of IDPL (Synthetic-drugs)	..	Trichur	10.0	250
4. A Unit of HAL (Antibiotics Formulation)	..	Alleppey	25.00	300
5. Ordnance Factory (Ministry of Defence)	..	Quilon	10.0	500
6. Wagon Factory (Indian Railways)	..	Palghat	50.0	2000
7. Phenol & Acetone (Project of Hindustan Organic Chemicals)				
(a) Phenol	40,000 TPA	Ernakulam	53.0	500
(b) Acetone	24,640 TPA			
8. Fluidized Catalytic Cracker Unit (Cochin Refineries Limited)	..	Ernakulam	35.0	50
9. Cocoa Processing Plant—Modern Bakeries	2500 TPA	Ernakulam	0.5	75
10. Indian Telephone Industries (Phase II and Phase III expansion)	..	Palghat	11.2	1050
11. Cochin Shipyard	..	Ernakulam	56.0	3200
12. Kerala Newsprint Project	80,000 TPA	Kostayam	25.0	2000
Total			504.7	11025

### Mineral Development

The schemes under Mineral Development are drawn up with a view to strengthen the operations of the State Department of Mining and Geology. A total outlay of Rs. 217 lakhs is proposed for the various schemes under mineral development. This outlay is inclusive of the provision for the UNDP aided Kerala Mineral Exploration and Development Project. The scheme-wise details are given below:

#### 1. Strengthening the working of the Department of Mining and Geology

As a first step towards intensification of detailed mineral investigation for important known minerals like clays, silica sand, limeshell, bauxite, graphite and base metals and to gather information on the industrial utilisation of these minerals which would include pilot plant trials, bench scale studies, feasibility studies, preparation of mine plans etc., it would be essential to streamline and strengthen the Department. To achieve this the strength and quality of the technical as well as ministerial staff in the Department will have to be improved. The Department will also be provided with laboratory equipments, drilling equipments, vehicles etc. under this scheme.

#### 2. Preparation of feasibility Reports for Minerals

The available information with regard to important known mineral deposits in the State such as clays, silica sand, beach sands, limeshell, iron ore, bauxite and graphite from the point of view of their industrial utilisation is highly inadequate. Therefore, during the Sixth Plan period, it is proposed to prepare feasibility reports for the utilisation of the minerals like bauxite

graphite, clays and silica sand. Bauxite of fair grade analysis between 40 per cent and 50 per cent has been located in Kumbla and Nileswar in Cannanore District. The State Government intends taking effective steps for utilising these ores. The Kerala State Industrial Development Corporation has had preliminary discussions with HINDALCO on this subject. In order to conduct pilot plant trials and for preparation of reports an amount of Rs. 1 lakh will be needed.

Several graphite deposits have been identified in the State as a result of preliminary explorations. Detailed geological exploration of some of these deposits is being arranged through the Mineral Exploration Corporation Limited. Beneficiation and pilot plant studies have to be conducted before deciding upon the economic utilisation of the graphite deposits in the State.

Large resources of clays both of the sedimentary and residual types are located in several areas of the State. The total reserves of China clay is estimated at 72 million tonnes, fire clay at 9.95 million tonnes and ball clay of 1.67 million tonnes. These clay resources offer good scope for establishing washing units and units for the manufacture of stone wares, terracotta, ceramic-ware and refractory products in the State. The suitability of the clays for various industries has to be determined by carrying out physical tests, chemical analysis and furnace tests before the preparation of feasibility reports with the aid of the Central Glass and Ceramic Research Institute.

Large deposits of silica sand are available in the State, especially in the Shertallai area of Alleppey district. These deposits could be utilised for the manu-

facture of high quality decolourised glass wares, high grade crystal glasses, decorated ware and sheet glass. A feasibility report on silica sand will help to assess its suitability for various industries.

### 3. Mineral Development

It is necessary to exercise Governmental control on exploitation, conservation, marketing and utilisation of the valuable mineral resources of the State. With this objective in view, special units will be created for gemstones, limeshell, silica sand and dimension stones. These units will be nuclei for future development corporation till the performance of such units demand such change over and the required reliability on the reserves position has been established through geological exploration.

### 4. Setting up of Field Organisations for Enforcement of Mines and Minerals Act

The provisions of Mines and Minerals (Regulation and Development) Act and rules made thereunder are to be implemented and enforced effectively to prevent clandestine mining of minerals which is of utmost importance to the State in avoiding leakage of revenue by way of royalty, rent etc., on minerals. The present set up in the Department of Mining and Geology is not adequate to ensure the implementation

of this work. Hence in order to undertake this task along with the routine activities of the Department, it is proposed to create a unit in each district of the State comprising a Geologist and necessary supporting administrative staff.

### 5. Kerala Mineral Exploration and Development Project (UNDP Project)

The Kerala Mineral Exploration and Development Project established with the assistance of United Nations Development Programme in the State, envisages the exploitation and evaluation of known and partially known deposits of iron ore, graphite, mica etc., and conduct of a general exploratory survey of other possible deposits over an area of 14500 sq. km. in the north and south Kerala. The project budget originally covered a UNDP assistance of 1.54 million dollars. The project started in April 1977 had an original State Government outlay of Rs. 32.5 lakhs for its activities for the 45 months period from April 1977 to December 1980. Based on subsequent realistic appraisals the Government of Kerala have agreed to the UNDP proposal for revising the UNDP assistance from 1.54 million dollars to 2.18 million dollars. The revision entails the extension of the Project activities up to July 1981. The plan outlay is for meeting the State's financial commitment on the Project during 1980-81 and 1981-82.

TABLE 5.33

#### Mineral Development—Scheme-wise Outlay

(Rs. lakhs)

Sl. No.	Name of Scheme	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital content	Proposed Outlay	Capital content
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Geological survey							
	UNDP Mineral Exploration Survey	9.62	10.00	22.13	37.00	10.00	27.00	10.00
2.	Department of Mining and Geology-							
	(i) Strengthening the Department	5.10	12.00	12.00	91.00	13.50	14.50	3.50
	(ii) Preparation of Feasibility Reports	..	1.00	1.00	8.00	..	1.00	..
	(iii) Mineral Development	..	..	..	57.50	30.00	8.00	5.00
	(iv) Setting up of field organisations for enforcement of Mines and Minerals Act	..	2.00	2.00	23.50	4.00	5.00	1.50
	Total—Mineral Development	14.72	25.00	37.13	217.00	57.50	55.50	20.00

### 5.5. Transport and Communications

#### Ports and Shipping

The significance of minor ports in the State's transport system has been gradually waning over the past two decades. The total traffic handled by the 14 intermediate and minor ports in the State has come down to as low as two lakh tonnes from about 7 lakh tonnes in 1956-57. Calicut, Alleppey and Neendakara are the intermediate ports in the State. The minor ports are Kasargode, Beypore, Ponnani, Azhikkal, Cannanore, Tellicherry, Badagara, Munambom, Quiton, Trivandrum and Vizhinjam. The transport of cargo to ships at the minor ports is done by lighters of small capacity

which can only be berthed alongside the open piers. This increases the number of handlings at the minor ports. These ports also lack amenities for the supply of fuel, oil, fresh water etc. to ships. The development of road traffic has made the diversion of cargo to the major port of Cochin easier. Road transport has also increased significantly its share of the coastal traffic.

The new functions which the minor ports are called upon to discharge will necessitate a shift in the emphasis from the old roadstead ports and open piers to the development of sheltered harbours for small crafts like coastal steamers of 2000-4000 tonnes capacity, self propelled cargo barges, mechanised sailing vessels and medium to large offshore fishing vessels. Most

of the harbour sites are situated at river estuaries. The entrances of these river estuaries are restricted by the presence of a shallow bar over which the depth varies between 1.5 to 2.5 metres. By the construction of suitable breakwaters and with moderate maintenance-dredging, it may be possible to economically maintain depth of 4 to 6 metres of water at these river entrances. Traffic through these harbours can be revived by introducing vessels of 3 to 4.5 metres draft which can operate coastal services. A programme for gradual mechanisation of sailing vessels may also be undertaken to help the traditional seafarers to continue their profession. The off-shore fishing vessels have draft between 3 to 4.5 metres only and it is possible to accommodate these vessels also in the harbours, thereby bringing additional returns on the capital invested.

The various programmes contemplated under ports and shipping during the Sixth Plan period are indicated below:—

#### A. Ports and Pilotage

##### 1. Development of Minor Ports

Cochin is the only major harbour in the State which can admit ships at all times of the year. It is therefore proposed to develop four cargo harbours, two in the south of Cochin and two in the north. The harbours proposed for development during the plan period are Vizhinjam and Neendakara in the south and Beypore and Azhikkal in the north. A total outlay of Rs. 410 lakhs is proposed for development of minor ports during the Sixth Plan period.

##### (i) Vizhinjam Cargo Harbour

Vizhinjam harbour was initially planned as a fishery harbour. This harbour however is blessed with adequate natural depth and therefore has ample potential for development as a cargo harbour. The cargo anticipated comprise foodgrains, coal, salt, chemicals, building materials like bricks and granite stones and materials for road making. The anticipated annual cargo is 2.5 lakh tonnes. A rough estimate of the cost of development of harbour facilities in this port is placed at Rs. 250 lakhs. Detailed investigation for this scheme is yet to be undertaken. Investigation and preparation of detailed designs for the harbour have to be taken up. The fishing harbour project has also to be completed. Hence only a provision of Rs. 5 lakhs is made for investigation, planning and preliminary works.

##### (ii) Neendakara Cargo Harbour

In 1959 the Intermediate Port Development Committee of the Government of India recommended the development of Neendakara as a lighterage port for handling the traditional traffic of cashew and ilmenite of the nearby roadstead ports of Quilon and Koilthottam. The construction of breakwaters at Neendakara was started in 1963 and continued till 1967 when the Government stopped the work on the advice of the then Development Adviser, ports. This was done with a view to examining the possibility of developing Neendakara as an all weather port for catering to vessels up to 30 ft. draft. To finalise the plan of the cargo harbour it was also necessary to finalise the layout

of the fishing harbour of Neendakara for which greater priority was given considering the large potential for fishery development. A revised project for the development of cargo harbour has been finalised and the report submitted to Government in June 1978. Schemes such as construction of quays, transit shed etc. costing Rs. 82 lakhs is being considered by Government for according sanction. Construction of a transit shed costing Rs. 8 lakhs is nearing completion. The outlay of Rs. 85 lakhs made in the Sixth Plan is to complete items of work like the construction of a quay with depth 6.5 m., transit shed etc.

##### (iii) Beypore Cargo Harbour

Numerous proposals were made to develop the Beypore port and finally a decision was taken to develop the port for the use of sailing vessels of draft up to 4.5m. A scheme costing Rs. 111.96 lakhs has already been approved by the Government of India and an estimate has been sanctioned by the State Government for the implementation of the scheme. The scheme included mainly the dredging at the approach channel with 6.0 m depth in the sea and 5.5 m depth inside the basin with a turning circle of 200 m. diameter. Further, model studies conducted at Central Water and Power Research Station have proved that the construction of two breakwaters are absolutely necessary for the stability of the approach channel. The present wharf at Beypore can be used only for the vessels having a maximum draft of 3m. This is not sufficient to accommodate the sailing vessels and coastal steamers of 4.5 m draft. Therefore, a wharf suitable for these vessels has to be provided. There are only two transit sheds each of 500 tonne capacity and this is quite insufficient and hence two more transit sheds are necessary. Construction of a coastal road connecting Calicut-Beypore ports is also envisaged. In order to improve the existing facilities and also to expand the operations in this port, various items of works have to be undertaken. An outlay of Rs. 300 lakhs is provided in the Plan to complete all these items of work at Beypore.

##### (iv) Azhikkal Cargo Harbour

Azhikkal port, situated at the mouth of Valappattanam river, has only a wharf 42.67 metre long and 12 metre wide. Only one vessel can be berthed at a time here. The objective of the proposed scheme in the Sixth Plan is to provide the necessary harbour facilities for the lighterage operations and complete terminal facilities for the lighters and small coastal steamers. Priority is given to dredging works so as to improve the depths on the approach channel at the bar area. An amount of Rs. 20 lakhs is provided in the Plan for taking up essential dredging and other items of work to develop this port to cater vessels upto 5.5 m. draft.

#### 2. Investigation, Planning and Engineering Studies

Investigation works in respect of certain ports are already in progress. The investigation works in respect of the other selected ports will have to be taken up during the five year period 1980-85. An outlay of Rs. 20 lakhs is earmarked in the Plan for this purpose.

### 3. Construction and Repairs

#### (a) Purchase of Supplementary Equipments for Ports

The total outlay in the State's Fifth Plan for this scheme was Rs. 65 lakhs. No expenditure however was incurred during the Plan period and purchase of the equipments proposed could not be effected. The main reason for non use of plan funds on this account was that the design for the hopper barges and pipe lines could not be finalised. Now proposals have been forwarded to Government for purchase of three barges for Alleppey port. It is also proposed to purchase a few more barges and tugs for Valiyathura, Neendakara and Beypore ports. A Plan provision of Rs. 150 lakhs is made under this item.

#### (ii) Capital Repairs and Major Additions to Piers and Other Structures

The piers at Tellichery, Alleppey, Calicut and Trivandrum are quite old and in order to keep them in working condition it has become necessary to undertake regular capital repairs. For the piers at Alleppey the renewal of superstructure was undertaken in the Fifth Plan period in a progressive manner. During the Plan period 1980-85 the renewal of poles and balance portion of work will be undertaken. At Calicut also the renewal of superstructure has to be undertaken periodically. The godowns at all the minor ports need repairs. The approach roads to the ports and internal roads also need capital repairs. The wharf surfaces need resurfacing. A total provision of Rs. 75 lakhs is proposed for the repairs of piers and other structures during the Plan period.

#### (iii) Capital Repairs and Major Additions for Equipments and Floating Crafts

Major repairs like replacement of engine, renewal of hull etc. are contemplated under this provision. Repairs of tugs, barges and trawlers have been arranged with the Cochin Shipyard. Most of the departmental crafts are very old and therefore need annual repairs and overhauling so as to put them into use for shipping operations. An outlay of Rs. 30 lakhs is proposed in the Plan for all these items of works.

### 4. Dredging and Surveying

#### (i) Dredging Unit

An outlay of Rs. 235 lakhs is provided to purchase a dredger since the present dredging capacity of the State is quite inadequate. The establishment charges of the unit will also be met from this outlay.

#### (ii) Capital Dredging at Minor Ports

Replacement of floating pipeline is necessary to keep the dredgers operational throughout the year. Minor and major repairs to various machinery, pipeline etc. have also to be undertaken. A floating workshop with the minimum of essential machinery fitted partly on Meena-Kerala and partly on a floating craft with a view to improving the efficiency of dredging is envisaged. Purchase of vehicles is also necessary to meet the requirement of transportation. Provision is also to be made for fuel, oil, replacing in ordinary equipments etc.

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for the dredgers and tugs. A total outlay of Rs. 170 lakhs is made for meeting the above expenditure.

#### (iii) Tugs for Surveying and Dredging Operations

It is proposed to procure a powerful tug for CSD. Meena to provide protection for the dredger from bad weather while in dredging area and also to lowout pipelines and 'changadam' and for shifting anchors. A provision of Rs. 65 lakhs is made for the purpose in the Plan.

### 5. Other Items of Expenditure

#### (i) Housing for Port Staff

There is acute shortage of housing for the staff engaged in the development activities of the ports and the port management. An outlay of Rs. 13.50 lakhs is proposed for the staff quarters to be provided in the various ports of the State.

#### (ii) Establishment of Central Workshop Stores Organisation

At present there are no workshops worth the name attached to any of the ports capable of undertaking the repair works and maintenance of the departmental floating crafts. Hence it is proposed to set up two workshops, one at Beypore and the other at Neendakara during the Plan period. An outlay of Rs. 15 lakhs is provided to purchase machinery and equipments for the workshops, establishment charges etc.

#### (iii) Provision of Steel Cargo Barges at Neendakara

A provision of Rs. 15 lakhs is made in the Plan for the supply of three steel cargo barges for Neendakara Port. It is proposed to entrust this work to Cochin Shipyard.

#### (iv) Purchase of a Refrigerated Barge for Neendakara Port

The construction of the refrigerated barge costing Rs. 12.44 lakhs has been completed. The vessel is to be taken delivery during 1980-81 after registration formalities are over. A provision of Rs. 2 lakhs is provided for settling the balance payments.

#### (v) Lighterage Port at Neendakara

The provision made in the Plan (Rs. 1.5 lakhs) is for making payments to the works already carried out.

#### (vi) Search and Rescue Organisation

With the increased fishing activities consequent on the introduction of mechanised fishing vessels, the number of accidents causing loss of life and property has also increased alarmingly. In order to attend to the distress calls of the fishermen promptly it is proposed to set up a search and rescue organisation under port wing during the Sixth Plan period. Action has already been initiated to procure one rescue tug and one speed launch as a first step for setting up such an organisation. An outlay of Rs. 85 lakhs has been proposed for 1980-85.

#### (vii) Establishment of Vizhinjam/Kovalam Port

Kovalam/Vizhinjam has been declared a port under the provisions of the Indian Ports Act. Skeleton

staff has already been appointed to the port. Preliminary arrangements will have to be made to commence shipping operations at the Port. Provision of Rs. 8 lakhs made in the plan is for meeting the establishment charges of the staff of the Ports.

(viii) *Survey Unit for Pre-dredging and Post-dredging Surveys*

When a dredging work is to be carried out pre-dredging and post-dredging surveys have to be undertaken. It is proposed to establish a separate survey unit to conduct such surveys for which an outlay of Rs. 3 lakhs is provided in the Plan.

(ix) *Extension of Office Buildings*

Since adequate space and amenities are not available in the existing buildings for the staff attached to the two field units of the Hydrographic Survey Wing at Quilon and Beypore it is proposed to construct extension wing and carry out certain modification to the existing buildings.

(x) *Purchase of Electronic Equipments for Surveying and Dredging Operations*

It is proposed to purchase essential electronic equipments on board dredger CSD Meena-Kerala, CSD Neendakara, Grab Dredger, Tug Plysteel and other

vessels for providing communication facilities between the vessels and shore. Trans receiver set, Radio positioning equipments for dredging etc. are also necessary. A provision of Rs. 25 lakhs is made in the Plan for purchasing the required electronic equipments.

B. *Shipping*

1. *Kerala Institute of Nautical, Studies, Vizhinjam*

It is proposed to develop the maritime training centre established at Vizhinjam into a full pledged one during the Plan period. The first batch of the seamen has already completed the training course at the Institute. The training envisages free boarding and lodging. It is proposed to take up the construction of a hostel building for the trainees. A provision of Rs. 20 lakhs is made for the Plan period 1980-85 for the Institute.

2. *Kerala State Maritime Development Corporation*

The objective is to establish a maritime corporation with a view to reviving the coastal trade through the minor ports of Kerala. The draft project report prepared by M/s. Engineers India Ltd. is now under examination by Government. An outlay of Rs. 5 lakhs is proposed in the Plan to meet the initial expenditure required in connection with the scheme.

TABLE 5.34

**Ports and Shipping—Scheme-wise Outlay**

(Rs. in lakhs)

Sl. No.	Name of Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>1. Development of Minor Ports:</b>								
(i)	Vizhinjam Cargo Harbour	..	..	..	5.00	5.00	..	..
(ii)	Neendakara Cargo Harbour	3.43	..	8.00	85.00	85.00	15.00	15.00
(iii)	Beypore Cargo Harbour	18.56	..	24.99	300.00	300.00	40.00	40.00
(iv)	Azhikkal Cargo Harbour	..	..	2.00	20.00	20.00	3.00	3.00
2.	Investigation, Planning Engineering Studies and Survey	3.77	4.50	4.50	20.00	..	5.00	..
<b>3. Construction and Repairs:</b>								
(i)	Purchase of Supplementary Equipments for Ports	0.02	5.00	17.50	150.00	150.00	25.00	25.00
(ii)	Capital Repairs and Major Additions to Piers and Other Structures	12.44	5.00	16.00	75.00	75.00	15.00	15.00
(iii)	Capital Repairs and Major Additions for Equipments and Floating Crafts	17.85	5.00	20.00	30.00	30.00	3.00	3.00
<b>4. Dredging and Surveying:</b>								
(i)	Dredging Unit	5.32	9.50	9.50	235.00	200.00	8.00	..
(ii)	Capital Dredging at Minor Ports	28.92	20.00	61.88	170.00	170.00	29.00	29.00
(iii)	Tugs for Surveying and Dredging Operations	..	5.00	5.00	65.00	65.00	20.00	20.00

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>5. Other Items of Expenditure:</b>								
(i) Housing for Port Staff		1.07	2.00	2.00	13.50	13.50	4.00	4.00
(ii) Establishment of Central Workshop Stores Organisation ..			2.00	..	15.00	3.00	5.00	3.00
(iii) Provision of Steel Cargo Barges at Neendakara		..	1.00	..	15.00	15.00	1.00	1.00
(iv) Purchase of a Refrigerated Barge for Neendakara Port		2.41	..	2.00	2.00	2.00	..	..
(v) Lighterage Port at Neendakara		0.83	1.50	1.50	1.50	1.50	..	..
(vi) Seamen's Welfare—Search and Rescue Organisation in the Port Wing		..	..	25.00	85.00	85.00	35.00	35.00
(vii) Establishment of Vizhinjam and Kovalam Port		..	0.50	0.50	8.00	..	1.00	..
(viii) Survey unit for Pre-dredging and Post-dredging Surveys		..	..	..	3.00	..	1.00	..
(ix) Extension of Office Buildings		..	..	..	2.00	2.00	1.00	1.00
(x) Purchase of Electronic Equipments for Survey and Dredging Operations		..	..	..	25.00	25.00	5.00	5.00
Sub-Total—Ports		94.62	96.00	200.37	1325.00	1247.00	216.00	199.00
<b>(b) Shipping</b>								
1. Training and Education (Kerala Institute of Nautical Studies, Vizhinjam)		2.13	3.00	5.00	20.00	10.00	3.00	2.00
2. Kerala State Maritime Development Corporation		..	1.00	1.00	5.00	5.00	1.00	1.00
Sub-Total—Shipping		2.13	4.00	6.00	25.00	15.00	4.00	3.00
Total—Ports and Shipping		96.75	100.00*	206.37	1350.00	1262.00	220.00	202.00

\* Includes provision given in the Budget for Dredging at Azhikkode (Rs. 0.01 lakh).

### Roads and Bridges

The poor condition of the roads, the increasing trends in the passenger and goods transport through roads and the accelerated pace of development envisaged in the different sectors of the State's economy constitute adequate justification for higher investment on road development programmes. A start has been made in the earlier plans to improve the condition of the existing road network. Spillover works should therefore be given top priority as the completion of these will yield quicker results.

The Scheme-wise details and the financial requirements for the Sixth Plan period are given below:

#### 1. State Highways

There are 32 State Highways having a total length of 2,028 km. of roads. Substantial improvement is needed in these vital roadways. The outlay earmarked in the Plan is for the development and improvement of about 900 km. of State Highways and for construction of bridges on the Highways. An amount of Rs. 500 lakhs will be utilised for the improvement of the M.C. road (240 kms.) pending its conversion into National Highway. The provision also includes an amount of Rs. 175 lakhs towards the cost of construction of parallel service roads of National Highways and land acquisition charges for the bypasses which come within the municipal limits and are executed by the National Highway Wing of Kerala Public Works Department.

#### 2. Major and Other District Roads

The State Public Works Department maintains 5544 kms. of major district roads and 7,049 kms. of other district roads. Most of these roads need widening and improvement as they do not conform to the Public Works Department standards. An outlay of Rs. 2000 lakhs is provided for improvement and development of about 5600 kms. of the existing major and other district roads and construction of bridges and culverts.

#### 3. Rural Roads

##### (Minimum Needs Programme)

Rural roads comprising classified village roads and some of the other district roads serve as feeders linking villages with each other as well as with the nearest district roads, State or National Highways, Railway Stations, Market Centres etc. Development of rural roads received encouragement during the Fifth Plan period as a part of the Minimum Needs Programme with the object of linking all villages having a population of 1500 and above with an all weather road. As the entire area of the Kerala State is more or less evenly populated, almost all the places are connected either by Public Works Department roads or roads maintained by other agencies like Panchayat, Forest, NES Blocks etc.

The total length of rural roads in the State including Panchayat roads is approximately 70,000 km.

Out of this, the State Public Works Department is maintaining only 1948 km. and the rest is under the control of agencies like Panchayats, C.D. Blocks etc. There is no regular maintenance of these roads. The concerned Panchayats are not able to maintain them properly due to lack of funds. Standard of existing rural roads is very poor. Most of these are earthen roads with insufficient width. There is already bus traffic in about 4000 km. of these roads.

The outlay of Rs. 2200 lakhs provided in the Sixth Plan is to take over and improve the roads in which there is already bus traffic on a priority basis. The State Public Works Department is expected to take over and improve and develop about 4000 km. of roads during the plan period.

#### 4. Machinery and Equipments

Most of existing machinery items and equipments available with the State Public Works Department are old and some of them even worn out. This causes considerable delay in the execution of works. Hence repairs and replacements are urgently required. During the Sixth Plan period it is proposed to purchase equipments such as rollers, road pavers, concrete mixers, tar boilers, bitumin conveyers etc. for which an outlay of Rs. 100 lakhs is earmarked.

#### 5. Planning, Research, Survey and Investigation

The Kerala Highway Research Institute is engaged in research and technical studies for the economic use of road construction materials and adoption of modern techniques in road engineering. During the Plan period an outlay of Rs. 200 lakhs is set apart for equipping the laboratories of the Institute and completing its expansion programme and for investigation and planning connected with roads and bridges.

#### 6. Railway Safety Works

For the construction of approach embankments to overbridges and other works connected with railway level crossings in State Highways, Major and Other District Roads and Village Roads, an outlay of Rs. 100 lakhs is earmarked for 1980-85.

#### 7. Other Schemes

##### (i) Opening of Hill Highway

There is only meagre communication facilities in the forest regions in the eastern part of the western ghats. If a hill highway is opened along the western ghats, the vast potential wealth available in our forests can be fully and efficiently tapped and the hill produce can be transported and marketed easily. The works proposed under this scheme are the construction of a hill highway running north to south by improving the existing roads, providing missing links, improving the existing cross roads which branch off from the proposed hill highway and constructing of new link roads in order to open up inaccessible forest areas. The total length of the proposed hill highway is 912 kms. About a third of this length has to be formed as new roads, while the remaining two-thirds of the length either exists as a village road or as a forest track. The approximate cost of construction of this hill highway will be Rs. 105

crores. It is proposed to complete this road project under a phased programme. An Investigation Cell for the hill highway is necessary. World Bank assistance is also being sought for this project. At least one division with full complement of subordinate staff is required for this scheme. Besides one circle, three divisions will also be necessary for implementing the works. A sum of Rs. 500 lakhs is earmarked to commence the preliminary works during the Sixth Plan period.

##### (ii) Improvements of the Roads in the Three Cities of Trivandrum, Cochin and Calicut

The roads within the city limits of Trivandrum, Cochin and Calicut need considerable improvement in order to carry even the present day traffic. These roads need, not only strengthening, but also widening and other improvement works. An outlay of Rs. 200 lakhs is proposed for such improvement works during the Plan period.

##### (iii) Improvement of Town and Municipal Roads

The existing roads within the town limits in most of the towns in Kerala need urgent improvement, so as to regulate the traffic and reduce the number of accidents. The Sixth Five Year Plan envisages a phased programme of improvement of roads in some of the major towns like Quilon, Alleppey, Kottayam, Trichur, Palghat, Calicut, etc. An outlay of Rs. 100 lakhs is allotted for this scheme in the Sixth Plan.

##### (iv) Improvement of Roads of Industrial Importance

A sum of Rs. 15 lakhs is set apart in the Plan for improvement of the roads leading to industrial belts.

##### (v) Improvement and Opening of New Roads in the Harijan Settlements and Tribal Areas

The approximate total area of tribal habitation in the State is about 10,000 sq.kms. While the average road length in the State is about 219 kms per 100 sq.kms. of area, in tribal areas it is less than 10 kms. per 100 sq. km. of area. The deficiency in communication facility in tribal areas and scheduled caste settlements is proposed to be made good by providing roads connects ing tribal and scheduled caste settlements with schools, market places, hospitals, dispensaries etc. This is one of the major schemes of development specially adopted to the needs and conditions of tribal areas and scheduled scastes settlements. A sum of Rs. 1100 lakhs is proposed in the Plan for such works.

##### (vi) Rubberisation of Roads

It has been found that rubberised bituminous road surfacings have a longer life under normal conditions. In tough conditions, such as on gradients, bus stops and roundabouts, on shifting foundations and in tropical conditions they show special advantages. It is proposed to try out, on an experimental basis, the use of rubberised bituminous for surfacing 5 to 10 kms. of road length in all district headquarters. An outlay of Rs. 100 lakhs is proposed for the five year period 1980-85 under this scheme.

(vii) *Access to Islands*

There are many islands along the Kerala coast which remain undeveloped due to lack of proper communication facilities. It is necessary to connect all these islands by constructing bridges. The total estimated requirement for connecting up all the islands is about Rs. 25 crores. This programme will be taken up in a phased manner. A provision of Rs. 50 lakhs is made for commencement of preliminary works during the Sixth Plan period.

(viii) *Improving Accident Prone Spots in the Highways and Other Roads in the State*

There are many accident prone spots in the highways and other roads of the State. To improve the geometrics of the roads on such locations and create proper environment for safe driving an amount of Rs. 50 lakhs is earmarked in the Plan.

(ix) *Special Repairs and Maintenance to Rectify Flood/Cyclon Damages*

Natural calamities by flood and cyclones are unexpected happenings. This affects very much the

roads and bridges. To rectify such flood/cyclone damages to the roads and bridges a provision of Rs. 185 lakhs is made in the Plan.

(x) *Roads of Economic Importance*

For taking up roads of economic importance during the Sixth Plan period an outlay of Rs. 75 lakhs is made in the Plan. For this scheme, matching central assistance will become available. The Scheme will be executed by the National Highway Wing of Kerala State. Improvements to Trivandrum-Kovalam road is also included under this Scheme.

(xi) *Roads in Backward Hilly Areas*

The whole length of the eastern side of the State is hilly area. This hilly region still remain backward in many respects. The communication facilities in the hilly area are proposed to be developed by constructing new roads, improving the existing village roads and other hill tracks. This will help the hilly roads to be connected to the proposed hill highways and major and other district roads. An outlay of Rs. 900 lakhs is provided for this scheme in the Sixth Plan period.

TABLE 5.35

## Roads and Bridges—Scheme-wise Outlay

(Rs. in lakhs)

Sl. No.	Name of Scheme/Project	1979-80 Expenditure	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	State Highways							
(i)	Public Works Department	71.07	190.05	200.00	1700.00	1700.00	310.00	310.00
(ii)	National Highway Wing	9.61	10.00	30.00	175.00	175.00	40.00	40.00
2.	District and Other Roads	236.31	221.23	250.00	2000.00	2000.00	400.00	400.00
3.	Rural Roads* (Minimum Needs Programme)	393.07	375.88	450.00	2200.00	2200.00	400.00	400.00
4.	Mechinery and Equipments	..	..	12.00	100.00	100.00	15.00	15.00
5.	Planning, Research, Survey and Investigation	23.59	25.00	25.00	200.00	100.00	40.00	20.00
6.	Railway Safety Works	4.08	5.00	10.00	100.00	100.00	15.00	15.00
7.	Other Schemes							
(i)	Hill Highways	..	18.79	25.00	500.00	500.00	50.00	50.00
(ii)	Improvement of Roads in Cities of Trivandrum, Cochin and Calicut	19.73	30.01	30.00	200.00	200.00	36.00	36.00
(iii)	Improvement of Town and Municipal Roads	2.53	10.93	11.00	100.00	100.00	15.00	15.00
(iv)	Roads of Industrial Importance	3.13	1.21	..	15.00	15.00	4.00	4.00
(v)	Roads in Harijan Settlements and Tribal Areas							
(a)	Special Component Plan	100.69	130.03	135.00	1000.00	1000.00	175.00	175.00
(b)	Tribal Sub-Plan	..	..	..	100.00	100.00	25.00	25.00
(iv)	Rubberisation of Roads	6.85	8.00	8.00	100.00	100.00	15.00	15.00
(vii)	Providing Access to Islands	..	7.29	8.00	50.00	50.00	10.00	10.00
(viii)	Improvement of Accident Prone Spots in Highway and other Roads	3.09	5.58	6.00	50.00	50.00	10.00	10.00
(ix)	Special Repairs and Maintenance to rectify Flood/Cyclon Damages	106.48	..	..	185.00	185.00	20.00	20.00
(x)	Roads of Economic Importance	..	1.00	1.00	75.00	75.00	5.00	5.00
(xi)	Roads in Backward Hilly Areas	..	300.00	300.00	900.00	900.00	300.00	300.00
	<b>Total—Roads and Bridges</b>	<b>980.23</b>	<b>1340.00</b>	<b>1501.00</b>	<b>9750.00</b>	<b>9650.00</b>	<b>1885.00</b>	<b>1865.00</b>

\*The Scheme village roads implemented through C.J.J. Blocks has been transferred to the Head of Development "Community Development".



### Road Transport

Kerala State Road Transport Corporation which is jointly owned by the State Government and the Southern Railway on behalf of the Government of India offers passenger transport services in the public sector. It caters to about a third of the total passenger traffic by road in the State. At the time of formation of the Corporation in March 1965 the undertaking was operating 901 buses along 553 routes. At the end of March 1980 the number of buses owned by the Corporation increased to 3038. During 1979-80 about 7064 lakh passengers made use of the services of the Corporation. The gross kilometres operated during this period was 2242 lakh kilometres.

During the Sixth Five Year Plan period (1980-85) the Corporation proposes to invest a total amount of

about Rs. 50 crores for its developmental activities. About 1800 buses are proposed to be commissioned during the Sixth Plan period. Out of this 1100 buses will be used for replacement purposes and the balance 700 buses for operating additional services in the existing routes. Five hundred and ninety eight additional schedules are proposed to be operated with this 700 buses. At the end of the Plan period, however, the Corporation will still have 800 buses aged above 10 years. For the creation of necessary infrastructural facilities an outlay of Rs. 8.75 crores is earmarked. It is also proposed to introduce trolley buses in Trivandrum city area. The State Government share of Sixth Plan outlay for the Corporation's development activities is Rs. 33 crores. This outlay includes an amount of Rs. 1 crore set apart for the introduction of trolley bus service in Trivandrum City.

TABLE 5.36

#### Road Transport—Schemewise Outlay

Name of Scheme/Project	1979-80 Expenditure	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Assistance to Transport Service	300.00	250.00	250.00	3300.00	3300.00	600.00	600.00
Training and Research							
Training Institute							
Land and Buildings							
Acquisition of Fleet							
Workshop Facilities							
State Contribution to K.S.R.T.C.							
<b>Total—Road Transport</b>	<b>300.00</b>	<b>250.00</b>	<b>250.00</b>	<b>3300.00</b>	<b>3300.00</b>	<b>600.00</b>	<b>600.00</b>

### Water Transport

The agencies responsible for the development of water transport in the State are the State Public Works Department, the State Water Transport Department, the Kerala Inland Navigation Corporation and the Kerala State Road Transport Corporation. The first one is in charge of the repair and construction of inland canals. The other three agencies deal with the traffic operations, goods as well as passenger. It is necessary to consider the integration of these agencies for efficiency and economy. Already some thoughts have been bestowed on the takeover of the ferry services of the Road Transport Corporation at Cochin by the newly created Kerala Inland Navigation Corporation. As a first step this integration should be effected without much delay. In the second phase the responsibility of goods and passenger traffic operation should be vested in a single organisation. Though this is the ultimate goal to be achieved during the Sixth Plan period, the plan proposals are now drawn separately for the Kerala Inland Navigation Corporation, the State Water Transport Department and the Public Works Department.

The scheme wise details and the outlays provided for the Plan period are given below:

#### 1. Assistance to Transport Services—Kerala Inland Navigation Corporation.

The main objective of the Kerala Inland Navigation Corporation with its headquarters at Ernakulam is to develop and promote cargo transport by waterways. Large quantities of industrial raw materials like Sulphur, Rock Phosphate, etc. required by the industrial units located at Alwaye and Ambalamugal are presently being transported through trucks. Navigation canals like the Champakara canal have been recently commissioned for diverting this cargo to water transport. For the development of intra-district movement of bulk cargo, the Corporation programmes to acquire four 250-300 tonne power barges. Two small 100 tonne barges are also proposed to be constructed for the movement of food-grains, fuel oil, steel sections, etc. from Cochin to various district headquarters and vice-versa. An outlay of Rs. 42 lakhs is proposed for the development of cargo transport.

With the introduction of two services in Cochin area, the Corporation has already entered the field of passenger transport. During the plan period it is proposed to take over the ferry services now conducted by the Kerala State Road Transport Corporation at Cochin. For augmentation of services in the routes now operated by Road Transport Corporation three large size boats will be constructed for which an outlay of Rs. 15 lakhs is proposed. An outlay of Rs. 41 lakhs is envisaged for payment to KSRTC for acquisition of the present passenger jetties and connected buildings, machinery and workshop and towards the value of boats. Construction of 10 fibre glass speed boats for supplementing short distance ferry services, medium size boats for augmenting long distance heavy traffic passenger services and construction of jetties, etc. are also envisaged in the plan for which a provision of Rs. 86 lakhs is made.

Welfare projects in aid of Thoni Thozhilalies are also proposed in the plan. Ten steel dump barges of 50 tonne capacity will be constructed for supplying to the Co-operative Societies of Thoni Thozhilalies on reasonable rent. Two 32 ft. Tug boats are also proposed to be constructed for operating these dump barges which will be given to Thozhilalies on hire purchase basis. A workshop with the required wood working machinery for undertaking repair of thonies and boats and at slipway are proposed to be constructed at Thevara. The welfare projects are estimated to cost Rs. 46 lakhs.

The provision made in the Plan is for giving assistance to the Corporation by way of share capital contribution.

## 2. *Training and Research—Traffic Studies, Establishment of Hydrographic Survey Unit etc.*

The last traffic survey of the State's inland waterways was carried out in 1967 by the National Council of Applied Economic Research. Since then the traffic pattern has changed considerably and therefore a fresh survey has to be conducted now. A permanent organisation to monitor the physical conditions of the canal system has also to be established during the five year plan period. An outlay of Rs. 40 lakhs is provided in the Plan for the above items of work which will be executed by the Public Works Department

## 3. *Lands and Buildings—Terminal Facilities for State Water Transport Department*

The various jetty offices now used by the State Water Transport Department are not owned by the Department. Some of them are owned by the Irrigation Wing of the Public Works Department. The transfer of these buildings to the State Water Transport Department is being considered by the Government. The provision made in the Plan is for the acquisition of jetties in places like Alleppey, Kottayam, Vaikom, Changanacherry, Muhamma, Quilon and Cochin now owned by the P.W.D. and also for the construction and improvement of jetties and other terminal facilities. It also includes an amount of Rs. 5 lakhs for taking up additional items of work such as parcel office, car shed, slipway in the dock and repair sections at the headquarters building at Alleppey.

## 4. *Acquisition of Fleet—Augmentation of Ferry Services State Water Transport Department.*

The State Water Transport Department has already initiated a scheme for procuring 20 new boats for the augmentation of the ferry services of the Department. Of this, 4 boats have been constructed, 4 boats are under construction and tenders have been invited for 6 new boats. The remaining 6 boats are also proposed to be constructed immediately. In addition to these boats, 20 new boats costing Rs. 40 lakhs are also proposed to be constructed during the plan period to replace the old boats and to have one spare boat for each of the stations. For the speedy conveyance of passengers, three or four fibre glass boats are also proposed to be constructed during the plan period. A total provision of Rs. 85 lakhs is made in the Plan for the augmentation of passenger services of the State Water Transport Department.

## 5. *Workshop Facilities.*

The State Water Transport Department owns a workshop at Alleppey which requires considerable improvement. Mini workshops are also proposed by the Department at Quilon, Kottayam, Changanacherry and Ernakulam. The outlay provided in the Plan is for the construction of additional workshops, improvement to the existing workshop and for the procurement of machinery and equipments.

## 6. *Other Schemes*

### (i) *Inland Canal Schemes (Public Works Department)*

Kerala's 1,900 kilometres of inland canals have considerable potential for both passenger and goods transport. The main canal viz. the west Coast Canal has a length of 555 km. In addition there are feeder canals connecting the central longitudinal strip of Kerala to this canal. Among these canals are the important water routes from Cochin to Ambalamugal where F.A.C.T. Cochin Division has the new fertiliser factory and that from Cochin to Udyogamandal (near Alwaye) where a number of big industries (mainly chemicals) have been established.

Inland Water Transport schemes executed by the Public Works Department falls under two categories viz. Central Sector schemes and State Sector schemes. Central Sector schemes are taken up with central assistance in the form of loans. Till 1979-80, the mode of assistance by the Centre for the schemes was 100 per cent loan. From 1980-81 onwards the pattern has been changed to 50 per cent loan assistance from the Centre and the remaining from State funds. Major schemes for the improvement and construction of the main inland water transport canal system are taken up under this sector with the prior approval of the Government of India. Construction of foot bridges across existing canals, petty improvements to existing canals like provision of side protection, de-silting shallow portions to facilitate easy plying of country and motor boats, construction of jetties and improvements to terminal facilities are the works usually taken up under the State Sector schemes.

(a) *Central Sector Schemes*

The Central Government had approved 37 schemes of which 28 schemes have already been completed. Of the remaining 9 schemes, 7 have spilled over from Third Plan and two from Fourth Plan. The Government of India stopped central assistance for the Third Plan Schemes and these 7 spill over schemes were transferred to State Sector from 1977-78 onwards. One of the major Third Plan Schemes still remaining incomplete is the Badagara Mahe canal. The two Fourth plan spill over schemes to be completed are the Champakara canal and the Neendakara-Cheriyazhikkal canal. The programmes for development under Central Sector are indicated below:

*Champakara Canal*

The total length of the waterway connecting the Industrial region at Ambalamugal with Cochin Port will be 20 km. The waterway will be 37 m. wide in the first stage. The whole length will be deepened to give minimum draft of 2.5 m. below L.W.L. Originally the cost of the scheme was estimated at Rs. 112.50 lakhs. Subsequently, due to the increase in the cost of construction of bridges, dredging and due to the revision of schedule of rates in 1974 and 1976 the cost of the scheme went up substantially. The cost of the scheme was estimated at Rs. 243 lakhs. The revised project report is being considered by the Government of India. The revised estimate will increase further due to revision of schedule in 1978 and 1980. The cost of the scheme will now be of the order of Rs. 260 lakhs.

A Public Works Department division with headquarters at Tripunithura is attending to the work. About Rs. 200 lakhs has been spent till the end of 1979-80. The budget provision for 1980-81 is Rs. 9.00 lakhs. Ninetysix per cent of land acquisition, 31 per cent of protective work, 88 per cent of the dredging work and 100 per cent of other allied works have been completed. An outlay of Rs. 60 lakhs is proposed in the Sixth Plan for completion of this scheme.

*Neendakara-Cheriazhikkal Canal*

This waterway consisting of four kilometres of artificial canals and ten kilometres of backwaters is part of the West Coast Canal system. To facilitate the movement of rare earths from the Chavara region to the port of Neendakara in large mechanised vessels of deeper drafts a proposal was finalised to deepen this canal to a minimum depth of 2.5 metres below low water level and a width of 23 metres. The original estimated cost was Rs. 41.50 lakhs of which an amount of Rs. 21 lakhs has been spent till the end of 1979-80. The revised estimate of the cost of the scheme is Rs. 48 lakhs which is expected to increase further to Rs. 60 lakhs on account of revision of schedule of rates. Forty-four per cent of side protection in one reach and 66 per cent in another reach and jetty works have been completed. Dredging work has to be done. The provision of Rs. 40 lakhs is for completing all works connected with the scheme during the Sixth Plan period.

*Cochin-Udyogamandal Canal*

The Cochin-Udyogamandal Canal scheme (estimated cost Rs. 42.77 lakhs) included in the Fifth Plan

was not taken up for implementation as the project report was not cleared by the Government of India. The estimate cost of the project will now be around Rs. 60 lakhs. An amount of Rs. 24 lakhs is provided in the budget for 1980-81.

*Improvements to West Coast Canal: Quilon-Cochin Section*

This project, though it was also included in the Fifth Plan, could not be started because it was not cleared by Government of India. It is proposed to take up and complete the project during the Plan period 1980-85. The budget provision for the scheme for 1980-81 is Rs. 3.98 lakhs. The estimated cost of the project was Rs. 258.56 lakhs which is likely to go up on account of the revision of schedule of rates. The revised cost would now be about Rs. 340 lakhs.

The above four canal schemes are proposed to be completed during the Sixth Plan period for which an outlay of Rs. 500 lakhs would be required as follows:

	Rs.
(i) Champakara Canal	60 lakhs
(ii) Neendakara-Cheriazhikkal Canal	40 „
(iii) Udyogamandal Canal	60 „
(iv) Improvements to West Coast Canal (Quilon-Cochin Section)	340 „
	500 lakhs

The State share of the outlay is Rs. 250 lakhs. The balance of Rs. 250 lakhs is expected from the Centre.

(b) *State Sector Schemes*

The programme under this sector includes completion of the Third Plan schemes carried out initially under Central Sector. The major scheme under this sector is the Badagara-Mahe Canal. This scheme could not be completed due to technical difficulties and increased cost. It is estimated that an amount of Rs. 350 lakhs more will be required for completing this scheme. The financial position of the State does not permit it to take up the scheme and complete it during the Plan period. The Government of India may therefore take up this scheme under Central Sector as a special case.

Apart from the Badagara-Mahe Canal Scheme 40 other spill over schemes are under implementation. The outlay for completing all these schemes will be about Rs. 100 lakhs. A few new schemes are also to be taken up during 1980-85 for which an amount of Rs. 150 lakhs would be required. A total outlay of Rs. 250 lakhs is proposed in the Plan for the State Sector Canal schemes.

(ii) *Formation of an Engineering Unit*

It is necessary to have a separate Engineering Unit attached to the State Water Transport Department to undertake construction works, maintenance, etc. so as to speed up implementation of the Departmental Schemes. The provision of Rs. 6 lakhs made in the Plan is for the formation of an Engineering Unit under the State Water Transport Department.

(iii) *Training of Staff*

Certain technical posts in the State Water Transport Department could not be filled up for want of suitable hands and this has affected the repair and reconstruction works. Hence it is proposed to organise training to existing staff for which an outlay of Rs. 4 lakhs is provided in the Plan.

(iv) *Purchase of Canal Dredgers*

Dredging of inland canals has to be carried out regularly for making the waterways navigable. An outlay of Rs. 160 lakhs is provided for the period 1980-85 for the purchase of canal dredgers.

TABLE 5.37

## Water Transport—Scheme-wise Outlay

Name of the Scheme/Project	1979-80- Expendi- ture	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Assistance to Transport Services (KINCO)	7.83	10.00	27.00	230.00	230.00	30.00	30.00
2. Training and Research (Traffic Studies, Hydrographic Survey Unit etc.—P.W.D.)	..	..	..	40.00	..	5.00	..
3. Land and Buildings and Terminal Facilities—S.W.T.D.	0.58	3.00	3.00	15.00	15.00	4.00	4.00
4. Acquisition of Fleet (Augmentation of Ferry Services—S.W.T.D.)	3.59	9.00	9.00	85.00	85.00	17.00	17.00
5. Workshop Facilities (S.W.T.D.)	..	1.00	1.00	10.00	10.00	2.00	2.00
6. Other Schemes							
(i) Inland Canal Schemes (P.W.D.)							
(a) Central Sector-State share	40.57	30.00	30.00	250.00	250.00	60.00	60.00
(b) State Sector		20.00	20.00	250.00	250.00	40.00	40.00
(ii) Formation of an Engineering Unit (S.W.T.D.)	..	..	..	6.00	..	1.00	..
(iii) Training of Staff (S.W.T.D.)	..	..	..	4.00	..	1.00	..
(iv) Purchase of Canal Dredgers (P.W.D.)	..	7.00	..	160.00	160.00	..	..
Total—Water Transport	52.57	80.00	90.00	1050.00	1000.00	160.00	153.00

*Tourism*

Tourism development in the Sixth Plan will be based on the concept of travel circuits connecting important tourist centres catering to varied tourist interests. The tourism plan envisages a package of facilities to tourists of various interests, both domestic and foreign, and the flow of tourist traffic along predetermined centres of tourist interest. Thus four primary travel circuits will be developed during the Sixth Plan period as follows:—

- (i) Trivandrum-Veli-Kovalam-Ponmudi-Varkala.
- (ii) Trivandrum-Cochin-Thekkady.
- (iii) Trivandrum-Kottayam-Kumarakom-Thekkady and
- (iv) Trichur-Guruvayur-Cannanore-Ezhimalai

It is also proposed to develop secondary circuits containing important tourist centres scattered all over Kerala.

A substantial portion of the total investment outlay of Rs. 2284 lakhs to be provided during the plan period is meant for the development of primary level circuits in which the Central Government's contribution for the development of tourist infrastructure has been contemplated. An assistance of Rs. 5.90 crores is expected from the Central Government during the plan period 1980-85. In addition, a joint sector project, viz. a Five Star Hotel in Trivandrum at a cost of about Rs. 8 crores, is envisaged for which private sector investment to the tune of Rs. 5.3 crores is also expected. A substantial contribution from financial institutions will also be required for implementing the tourist plan envisaged.

The total size of the tourist plan for 1980-85 is indicated in Table 5.38.

TABLE 5.38

## Sector-wise Distribution of Outlays

Name of Scheme	Total Cost of the Scheme	State Sector Outlay Proposed	Central Sector Outlay	Others
(1)	(2)	(3)	(4)	(5)
I. Primary Circuits	1836.00	780.00	472.00	494.00
1. Tourist Accommodation				
(a) Continuing Schemes	333.00	333.00	..	..
(i) Kovalam/Trivandrum	94.00	94.00	..	..
(ii) Cochin	239.00	239.00	..	..
(b) New Schemes	1031.00	537.00	..	494.00
(i) Trivandrum/Kovalam	547.00	..	..	..
(ii) Kumarakom	82.00	..	..	..
(iii) Thekkady	50.00	..	..	..
(iv) Cochin	71.00	..	..	..
(v) Veli	2.50	..	..	..
(vi) Ponnudi	55.00	..	..	..
(vii) Varkala	77.50	..	..	..
(viii) Trichur/Guruvayoor	70.00	..	..	..
(ix) Cannanore	66.00	..	..	..
(x) Ezhimalai	10.00	..	..	..
2. Tourist Infrastructure	303.00	..	303.00	..
3. Tourist Information & Publicity	6.00	..	6.00	..
4. Entertainment	163.00	..	163.00	..
(i) Sound and Light show	45.00	..	45.00	..
(ii) Speed Boat	75.00	..	75.00	..
(iii) Other Boats & Equipments	43.00	..	43.00	..
II. Secondary Circuits (Tourist Centres)	149.00	149.00	..	..
III. Transportation	91.00	26.00	65.00	..
IV. Tourist Information & Publicity	79.00	26.00	53.00	..
V. Other Schemes	114.00	114.00	..	..
(i) Development of Pilgrim Centres	50.00	50.00	..	..
(ii) Development of Tourist Spots	5.00	5.00	..	..
(iii) Training of Staff & Guides	3.00	3.00	..	..
(iv) Backwater Beautification	25.00	25.00	..	..
(v) Preparation of Master Plan	1.00	1.00	..	..
(vi) Staff Quarters	20.00	20.00	..	..
(vii) Miscellaneous	10.00	10.00	..	..
VI. Direction and Administration	15.00	15.00	..	..
Total	2284.00	1200.00	590.00	494.00

As can be seen from Table 5.38 the State Sector outlay proposed for tourism development for the five year period 1980-85 is Rs. 1,200 lakhs. Scheme-wise description of various items of development under tourism in the State Sector is indicated below.

(i) *Direction and Administration*

The State Department of Tourism needs strengthening at various levels to cope with the increasing activities in connection with the development of tourism in the State. The provision of Rs. 15 lakhs is for meeting the expenditure on additional staff required for the better functioning of the tourist organisation in the State and for other administrative expenditure.

(2) *Tourist Transport Service*

The Kerala Tourism Development Corporation is already conducting transport services connecting important tourist centres like Kovalam, Thekkady, Kanyakumari, etc. It is proposed to expand and strengthen the tourist transport services by providing more vehicles and other amenities for better transportation of tourists visiting the State. The State Sector outlay suggested for this Scheme is Rs. 26 lakhs.

(3) *Tourist Accommodation*

The accommodation facilities for tourists available in the State are quite inadequate. Better accommoda-

tion facilities for both foreign and domestic tourists have to be provided. The schemes now being implemented by the Kerala Tourism Development Corporation are Kovalam Project (Rs. 15 lakhs), Thampanoor Project (Rs. 75 lakhs), Three Star Hotel at Cochin (Rs. 194 lakhs), Bolghatty Project (Rs. 45 lakhs) and Guest House at Kovalam (Rs. 4 lakhs). An amount of Rs. 333 lakhs will be required for the completion of these projects. In addition, new projects for providing better accommodation facilities at Kumarakom, Thekkady, Veli, Ponmudi, etc., are also envisaged in the Plan. The total outlay proposed in the State Sector is Rs. 870 lakhs.

#### (4) Tourist Information and Publicity

Like any other industry, tourism also requires adequate publicity. In spite of the steady and overall increase in tourist traffic, Kerala's share of tourist traffic is meagre. This is mainly due to inadequate and ineffective publicity. It is therefore proposed to bring out films depicting Kerala's multifarious tourist attractions, attractive and informative tourist literature, etc. It is also proposed to open tourist information centres at Trivandrum, Quilon, Ernakulam, Calicut and New Delhi Railway Stations and tourist reception centres. Promotion of local and cultural programmes and tourist week celebrations are also envisaged. The total provision for such information and publicity items set apart in the Plan is Rs. 26 lakhs.

#### (5) Tourist Centres

Apart from primary circuits development of secondary circuits is also contemplated. Important tourist centres such as Malampuzha, Bekkal, Kappad, Quilon, Idukki, Alleppey, etc., are proposed to be developed as secondary circuits. An outlay of Rs. 149 lakhs is earmarked for this scheme for 1980-85.

#### (6) Others

Other schemes envisaged in the plan for the development of tourism in the State include (i) Development of Pilgrim Centres (Rs. 50 lakhs), (ii) Development of tourist spots (Rs. 5 lakhs), (iii) Training of staff and guides (Rs. 3 lakhs), (iv) Backwater beautification (Rs. 25 lakhs), (v) Master Plan (Rs. 1 lakh) (vi) Construction of staff quarters (Rs. 20 lakhs) and other miscellaneous schemes (Rs. 10 lakhs).

The development of pilgrim centres at Sabarimala, Malayattoor, Varkala, Mambram, Kalady and Guruvayoor will be given due attention during the Plan period. These centres will be developed by providing dormitory type of accommodation for pilgrims and by improving roads and other facilities. Selected tourist spots will also be developed. Beautification of the backwaters at Veli, Quilon, Alleppey, Ernakulam etc., is also envisaged for the development of tourism in the State.

TABLE 5.39  
Tourism—Scheme-wise Outlay

Name of Scheme	1979-80 Actuals	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Direction and Administration	0.52	2.00	2.00	15.00	..	3.00	..
2. Tourist Transport Services	..	..	..	26.00	26.00	8.00	8.00
3. Tourist Accommodation:							
(i) Kovalam Project				15.00	15.00	13.00	13.00
(ii) Thampanoor Project				75.00	75.00	60.00	60.00
(iii) Guest House at Kovalam	75.86	75.50	134.44	4.00	4.00	0.50	0.50
(iv) Three Star Hotel at Cochin				194.00	194.00	75.00	75.00
(v) Bolghatty Project				45.00	45.00	10.00	10.00
(vi) Other Projects				537.00	537.00	41.50	41.50
4. Tourist Information and Publicity	2.29	4.00	16.20	26.00	..	5.00	..
5. Tourist Centres	..	..	2.44	149.00	149.00	40.00	40.00
6. Others							
(i) Development of Pilgrim Centres				50.00	45.00	10.00	10.00
(ii) Development of Tourist Spots				5.00	5.00	1.50	1.00
(iii) Training of Staff & Guides				3.00	..	0.50	..
(iv) Backwater Beautification	1.27	23.50	11.65	25.00	..	3.00	..
(v) Master Plan				1.00	..	1.00	..
(vi) Staff Quarters				20.00	20.00	4.00	4.00
(vii) Miscellaneous				10.00	..	2.00	..
<b>Total—Tourism</b>	<b>79.94</b>	<b>105.00</b>	<b>166.73</b>	<b>1200.00</b>	<b>1115.00</b>	<b>278.00</b>	<b>263.00</b>

## 5.6 Social and Community Services

In Kerala, the educational sector has recorded, over the years, a phenomenal growth. There has been steady growth in the number of educational institutions, enrolment and teachers during the past two decades. At present, there are 1680 High Schools, 2739 Upper Primary schools and 6970 Lower Primary schools with the total strength of 55.8 lakhs of students and 1.76 lakhs of teachers. Kerala is ahead of other States in India in respect of educational advancement. While the percentage of literacy in India increased from 24 to 29 during 1961-71, it increased from 48 to 60 in Kerala. About 38 percent of the State budget funds is spent on the maintenance and development of education in Kerala while the all India percentage is only 23. A short description of the various schemes proposed to be taken up under education in the Sixth Plan is given below.

### I. Elementary Education

#### Quality Improvement Programmes

#### 1. Work Experience Programme in Primary Schools.

Work-experience is a regular curricular item of work in all the primary schools. In the lower primary schools, the programme is intended, in general, to develop basic attitudes towards work and the essential basic skills. The programme does not entail any expenditure. But in the upper primary schools, some socially useful productive work is introduced for which financial support is required. The main item introduced during the previous Plan period was workshop practice. It is proposed to extend these programmes and to introduce different crafts suited to the locality, during the Sixth Plan period. The amount proposed is for meeting the expenditure on instructors to be appointed additionally, construction of workshop and purchase of furniture, equipments, raw materials etc.

#### 2. Improvement of Science Education in Primary Schools.

Consequent on the introduction of new syllabus, many of the primary schools lack equipments for science education. The provision proposed is for the supply of science equipment to these primary schools.

#### 3. UNICEF Assisted Programmes

The two schemes sponsored under the UNICEF Assisted Programme are Curricular Renewal Project and Comprehensive Access to Primary Education. Though UNICEF will be meeting the whole expenditure initial expenses are to be borne by the State. The provision is to meet the initial expenses of the Project.

#### 4. Introduction of Socially useful Productive Work

Under this scheme socially useful production work will be introduced in some of the primary schools as an item of education.

It is proposed to provide equipments, raw materials etc. to certain primary schools for the introduction of this programme.

### Tribal Welfare

#### 1. Opening of Primary Schools in Tribal Sub Plan Area.

The amount proposed is for the payment of salary of teachers to be appointed additionally in the 21 lower primary schools already started in the Tribal Sub Plan area.

#### 2. Supply of Furniture to New Schools in Tribal Sub Plan Area.

The Scheme is meant for the purchase of furniture to the new schools started in the Tribal Sub Plan area.

#### 3. Construction of School Buildings in Tribal Sub Plan Area

The new Primary schools started in the Tribal Plan area are to be provided with adequate accommodation. The provision set apart is for meeting the expenditure towards the construction of buildings.

#### 4. Construction of Staff Quarters in the Tribal Sub Plan Area

In tribal pockets, there are no accommodation facilities for the teachers to stay, with the result that the teachers are reluctant to work in such places. In order to overcome this difficulty, it is proposed to construct staff quarters attached to the new primary schools started in the Tribal Sub Plan area.

#### Minimum Needs Programme

#### 1. Additional Enrolment—Departmental L. P. Schools—Teacher Cost

The outlay proposed is to meet the expenditure towards salary of teachers to be appointed in the new Departmental L. P. schools and new divisions in the existing Departmental L.P. schools.

#### 2. Opening of New Departmental L. P. Schools—Buildings

The scheme envisages construction of class rooms as a result of additional enrolment in the Departmental L.P. Schools and construction of buildings for the newly sanctioned Departmental L.P. Schools.

#### 3. Supply of Furniture to New Departmental L. P. Schools

The provision is for the supply of furniture to new Departmental L.P. Schools and additional class divisions in the existing Departmental L.P. Schools.

#### 4. Additional Enrolment—Departmental U. P. Schools—Teacher cost

The provision is for meeting the salary cost of teaching and non-teaching staff (except Hindi Teachers) in the new Departmental U.P. Schools and new divisions in the existing Departmental U.P. Schools.

#### 5. Opening of new Departmental U. P. Schools—Buildings

The provision is for the construction of class rooms as a result of additional enrolment in the Departmental U.P. Schools and for providing buildings for the newly sanctioned Departmental U.P. Schools.

6. *Supply of Furniture to New Departmental U. P. Schools*

The provision is for the supply of furniture to the new Departmental U.P. Schools and new divisions in the existing Departmental U.P. Schools

7. *Supply of Furniture to existing Departmental L. P. Schools*

The amount proposed is to meet the expenditure towards supply of furniture to existing Departmental L.P. Schools as a result of additional enrolment.

8. *Supply of Furniture to Existing Departmental U.P. Schools*

The provision proposed is for the supply of furniture to existing Departmental U.P. Schools as a result of additional enrolment.

9. *Improvement of Facilities in Primary Schools*

The scheme is intended to raise the physical facilities in Primary Schools at the prescribed minimum level. The outlay proposed is meant for the supply of equipments, teaching aids etc. to Departmental L.P. Schools and U.P. Schools.

10. *Strengthening of Primary Schools—Improvement of Selected Primary Schools*

The duties and responsibilities of the Headmasters of Primary Schools have increased to a considerable extent, leaving little time for academic supervision of the school. It is, therefore, necessary to provide for second level supervision. The provision is to meet the expenditure of one additional teacher to be appointed in each Primary School having heavy strength.

11. *Replacement and Addition of Departmental Schools—Buildings*

Some of the primary school buildings require immediate renovation or replacement. The provision is for this purpose.

12. *Minimum Site and Building for Primary Schools run in Rented Buildings*

Some of the primary schools are run in rented buildings. The outlay proposed is for providing minimum site and building for such schools.

13. *Appointment of Primary School Teachers from Scheduled Castes/Scheduled Tribes*

The outlay is for meeting the salary cost of teachers belonging to scheduled caste/scheduled tribes, appointed against the additional posts of P.D. teachers created.

14. *Additional Enrolment—Non-Government L.P. Schools—Teacher Cost*

The amount proposed is to meet the salary cost of teachers to be appointed in new aided L.P. schools and new divisions of the existing aided L.P. schools.

15. *Additional Enrolment—Non-Government U.P. Schools—Teacher cost*

The outlay is for the payment of salary of teaching and non-teaching staff (except Hindi Teachers) to be appointed in new aided U.P. Schools and new divisions of the existing aided U.P. Schools.

**Other Programmes**

1. *Removal of Backwardness including Education of Girls*

In order to achieve universalisation of primary education and reduction of drop-out children, it is necessary to identify backward areas where enrolment ratios are poor, especially among girls. During the previous Plan period, 35 such pockets were identified and introduced the programme for stepping up enrolment particularly for girls and also to reduce wastage at the primary level. More centres will have to be identified for extending the programme during the Sixth Plan period.

2. *Institute of Primary Education*

It is proposed to strengthen the academic and administrative wings of the Institute of Primary Education suitably. The amount proposed is to meet the salary cost of the existing staff and additional staff to be appointed and for the development programmes connected with Primary education.

3. *Health Education Programme*

The scheme envisages the supply of first aid box to primary schools and short term training to primary school teachers in health, hygiene and first aid. The Department of Health Services will provide resource persons.

4. *Pre-Primary Education*

Pre-primary education in Kerala is undertaken mostly by voluntary agencies and it has to be so in future also. It is essential to take necessary steps to standardise the programmes undertaken by various agencies, supervise their work and organise training programmes etc. The following programmes are proposed under the scheme.

- (i) Establishment of an Institute for Pre-Primary Education.
- (ii) Standardisation of Programmes undertaken by various agencies in the field of nursery education.
- (iii) Organisation of training programmes.

The Plan provision made also includes the cost of construction of a building for the Institute of Pre-Primary Education.

5. *N.C.E.R.T. Assisted Programmes—State's Share*

It is proposed to provide in-service education and to organise programmes of general nature like symposia, panel discussions, camps etc. for professional teachers. The expenditure is to be met by the UNICEF and State



Government on a 50: 50 sharing basis. The provision proposed in the Plan is to introduce the scheme in the existing centres and also to start four more additional units.

#### 6. *Experimental Project for Non-formal Education—State's Share*

Non-formal education has to be considered for children of the age group 6-14 who have either dropped out or have never had primary education. In Kerala, the number of children never enrolled in schools in the age group 6-11 constitutes a negligible portion. The children remaining outside schools are mostly drop-outs. Estimates have revealed that the drop-out rates are 10 per cent in the case of lower primary stage and 9 per cent in the case of upper primary stage. These drop-outs are working children belonging to educationally backward and culturally deprived sections who are unable to attend the formal school on a full-time basis as they have to work and earn to supplement their family income. Four hundred and twenty five education centres for imparting non-formal education have been opened in 1979-80 attached to primary schools. These centres have been started as an experimental measure with a view to bringing the entire group of drop outs under the programme.

## II. Secondary Education

### 1. *Additional Enrolment—Departmental Secondary Schools—Teacher Cost*

The provision made in the Plan is to meet the salary cost of teaching and non-teaching staff (except Hindi teachers) to be appointed in new Departmental High Schools and new divisions of the existing Departmental High Schools as a result of additional enrolment.

### 2. *Building and Equipments to new Departmental Secondary Schools/Divisions (including Supply of Soil Testing Equipments)*

The outlay proposed is for the construction of class rooms and for providing equipments and furniture to new Departmental High Schools and to new class divisions in the existing Departmental High Schools. The provision also includes the supply of soil testing equipments to secondary schools.

### 3. *Supply of Furniture to existing Departmental Secondary Schools*

In order to meet the requirements of the modified syllabus, provision of literature in the shape of background material, instructional material, manuals, etc. will have to be prepared and supplied free of cost to secondary schools. Minimum laboratory equipments required for demonstration and experiments in science subjects to the secondary stage have to be supplied to those schools which lack such facilities. The provision proposed is for meeting the expenditure on the above items.

### 4. *Construction of New Buildings in the Place of Temporary Sheds*

In about 300 schools in the State, classes are functioning in temporary sheds. During the monsoon, in spite of precautions, a few sheds collapse every year.

Permanent buildings will have to be constructed in the place of temporary sheds. The provision is for the construction of school buildings replacing temporary sheds in these schools. The provision also includes expenditure towards the construction of buildings for Text Books Depots at the District headquarters and a Central Depot at Thrikkakkara.

### 5. *Introduction of vocational Courses in Selected Secondary Schools upgrading them into Higher Secondary Schools*

The ultimate objective of vocationalisation should be to strengthen the technical content of the educational system in the State in a manner that will enable matriculates/post matriculates enter employment in the different occupations and sectors of the economy. A variety of non-academic courses of technical education and training which are employment oriented and directly useful to the students should be made available. The choice of trade should be made in conformity with the availability of industries or employment opportunities in a particular area. It is proposed to introduce the scheme at the higher secondary level by selecting 20 high schools for the present. The provision is for meeting the expenditure towards the salary of staff and supply of equipments to such higher secondary schools.

### 6. *Scholarships*

#### (i) *Creation of Scholarship Unit and Enhancement of Scholarships*

The amount proposed is to create a Scholarship Unit in the Directorate and to award scholarships to students at the secondary stage.

#### (ii) *Award of Scholarships to Meritorious Scheduled Caste/Scheduled Tribe Students*

The provision is for the continuance of the existing scheme for the benefit of SC/ST students in upper primary/high schools.

### 7. *Assistance to Non-Government Secondary Schools—Additional Enrolment—Teaching Cost*

The provision is to meet the salary cost of teaching and non-teaching staff (except Hindi teachers) to be appointed in aided secondary schools and additional divisions in the existing aided secondary schools.

### *Quality Improvement Programmes*

#### 1. *Improvement of Science Education in Secondary Schools*

Because of the revision of curriculum, it has become necessary to prepare graded text books and diagrams. In order to meet the requirements of the modified syllabus, provision of literature in the shape of background material, instructional materials, manuals, etc. will be required. Minimum equipments required for demonstration and experiments in science subjects in the secondary stage have to be supplied to those high schools which are lacking such facilities. The provision is for meeting the expenditure for implementing the above programmes.

## 2. *Work-Oriented Education in Secondary Schools*

The programme of work oriented education is at present undertaken in 173 secondary schools. The items of work experience introduced are garment making, home science, tailoring, printing, agriculture, spinning, electronics, etc. The provision is for continuing the 'Work Experience Programme' in secondary schools and also for payment of salary of home science graduate teachers appointed under 'Half a Million Job Programme'.

## 3. *Vocational Guidance Programme*

There is a trained Career Master in almost every secondary school in the State, whose main function is to implement a programme of occupational information service to high school students. The programme of information service is found to be very useful to high school students. The Plan provision is for arranging this vocational guidance programme in secondary schools and for production of cumulative records.

## 4. *Improvement of Library and Laboratory Facilities in Departmental Secondary Schools*

Many of the high Schools, including those opened during the Fifth Plan period, lack laboratory and library facilities. The introduction of new syllabus has necessitated providing more library and laboratory facilities. The plan outlay is for providing library and laboratory facilities to selected high schools on a priority basis.

## 5. *State Institute of Education*

The State Institute of Education is the academic development wing of the Education Department catering to the needs of primary, secondary and training schools in the matter of curriculum, syllabus and in-service training. In view of the increasing number of teachers and the backlog of a large number who have not undergone a refresher course, it is necessary to strengthen the Institute and its academic activities. The outlay proposed is for the strengthening of the academic and administrative wings of the Institute, conduct of seminars and in-service programmes and for construction of a hostel for the Institute.

## 6. *Institute of Science*

In view of the upgraded syllabus in science, the Institute of Science needs strengthening both in terms of staff and contents of programmes. The plan provision made is to meet the expenditure towards the strengthening of the Institute, in-service courses for resource persons and content courses, improvement of science clubs, etc.

## 7. *Examination Reforms*

To make examination objective based, organisation of workshops and training for paper setters for public examinations are necessary. Necessary provision has been made in the Plan for this purpose.

## 8. *Revision of Curriculum*

A revised syllabus cannot remain new for more than five years. Periodical revision of curriculum and

text books is therefore inevitable. Based on the experience of teachers and evaluation study, periodical revision of curriculum will have to be undertaken. The plan provision made is for the purpose.

## 9. *School Complex Programme*

For breaking the isolation existing between primary and secondary schools and for cross utilisation of resources available at the two levels of institutions, school complexes are recommended as an effective measure. School complexes were started in some schools during the previous Plan periods. The Sixth Plan proposes to introduce this scheme in more schools. The provision is to meet the contingent expenses for discussions and meetings connected with this scheme.

## 10. *Strengthening of staff of Large Secondary Schools*

Increasing duties and responsibilities of the headmasters of secondary schools, leave very little time for them for academic supervision in the schools. It is, therefore, essential to provide for second level supervision. The provision is to meet the cost of one additional teacher each to be appointed in large secondary schools.

## *Other Programmes*

### 1. *Library Movement*

The Plan provision is for the payment of contribution to the Raja Ram Mohan Roy Library Foundation and for meeting the expenses of the State Planning Committee of the Foundation.

### 2. *Popularisation of Science Literature*

The scheme for the popularisation of science and science literature among the rural population already implemented is to be continued. The provision is to give assistance to Kerala Sasthra Sahitya Parishad and also for publication of science books.

### 3. *Coaching Classes for SC/ST Students in S.S.L.C. Classes*

The amount proposed in the Plan is to meet the honorarium to teachers handling special coaching classes to scheduled caste/scheduled tribe students for the S.S.L.C. Examination.

### 4. *Formation of Society for School Promotion and Development*

The scheme envisages the formation of a society for school promotion and development. This society will raise resources from financial institutions for the construction of school buildings on the lines of the Health Research and Welfare Society which is undertaking construction of paywards attached to hospitals. The profits earned through the sale of text books and note books will also be utilised for the school construction programme.

### 5. *Population Education—State's Share*

This is a new scheme to be introduced in primary and secondary schools, with Central assistance including assistance from N.C.E.R.T. of the order of 75 percent of the total expenditure. The State has to bear

the remaining 25 per cent of the cost. The scheme envisages the introduction of the subject 'population education' in school curriculum while incorporating suitable lessons in text books, provision of guidelines and training to teachers. The provision also includes creation of a 'population education cell' in the State Institute of Education.

### III. Teacher Education

There are at present 92 teacher training schools in the State, 30 in the public sector and 62 in the private sector. Many of the schools are lacking in facilities and equipments to cope with the revised curriculum. In order to make primary education qualitatively effective, it is necessary to equip the schools with minimum facilities. A regular programme of in-service education is necessary for maintaining professional competence of primary and secondary school teachers, in view of the introduction of new syllabus in schools.

#### 1. Teacher Training—Primary

The Plan provision made is to meet the expenditure towards the training programmes of primary school teachers during the Sixth Plan period.

#### 2. Teacher Training—Secondary

The outlay proposed in the Plan is to meet the expenditure to be incurred in connection with the inservice training programme of high school teachers and for providing additional facilities in the existing Basic Training Schools for specialisation.

### IV. University Education

Although Kerala had marched ahead of other States in India, in the field of literacy and general education at school level, the State's pace of progress in higher education has been comparatively low. The progress of university education gathered momentum only in the recent past. With the implementation of the Third Five Year Plan the facilities for university education witnessed rapid expansion in the State. At present, there are 133 Arts and Science Colleges in the State with a total student strength of 1.8 lakhs.

#### A. Development of Universities

##### 1. Assistance to Universities

The assistance to Universities is meant for the expansion and strengthening of the existing schools and Departments and for providing physical and infrastructure facilities. While allocating grants to Universities, the Cochin University deserves special financial support in view of the modest assistance it has received so far and its technological character. The total provision in the Plan will be shared by the three Universities as follows:

(i) Kerala University	Rs. 150 lakhs
(ii) Cochin University	Rs. 240 „
(iii) Calicut University	Rs. 150 „

##### 2. Ship Technology Course

The proposed outlay is for giving financial assistance to the University of Cochin for the development of Ship Technology Course.

#### B. Development of Colleges

##### 1. Starting of New Government Colleges

Three Arts and Science Colleges have been newly started at Tirur, Kodanchery and Manjeswar under the University of Calicut. It is proposed to start three Government Colleges under the University of Kerala during the Sixth Plan period. The provision is to meet the expenditure towards the salary of teaching and non-teaching staff to be appointed in those Colleges.

##### 2. Buildings for Existing Colleges

The construction of buildings for the Government Colleges at Attingal and Kottayam are to be continued. New buildings are required for the existing nine colleges and for the three newly started colleges. The Plan envisages a phased programme of construction works. The Plan provision is for meeting the expenditure in connection with the new construction work including spill over works.

##### 3. Upgrading of Colleges

Government College, Attingal, and Government College, Chalakudy, were upgraded during 1978-79 and 1979-80 respectively. It is proposed to upgrade five more Government Colleges during the Sixth Plan period. The outlay made in the Plan is meant for the salary of the staff newly appointed in connection with the upgradation of Government Colleges.

##### 4. Starting of new Courses in Government Colleges

New courses have been introduced in 14 Government Colleges during 1979-80 and in 3 Colleges during 1980-81, including post graduate courses. The Scheme envisages the extension of the programme in more colleges during the plan period.

##### 5. Introduction of Shift System in Government Colleges

Shift system at Pre-Degree level was introduced in 22 Government Colleges during 1979-80 and is being continued during 1980-81. Consequently, 144 posts of Junior Lecturers were sanctioned during the year 1979-80. Besides, 220 posts of Junior Lecturers have been sanctioned during 1980-81. The scheme is to be introduced at the Degree level during the Plan period. The outlay provided is towards the cost of teaching and non-teaching staff to be appointed in connection with the expansion of shift system in Government Colleges.

##### 6. Introduction of Part-time Courses in Law Colleges

The scheme envisages the continuance of the Evening Courses in LLB in the Government Law Colleges. The Provision also includes the starting of part-time LLB Course in Government Law College, Calicut,

##### 7. Hostels and Staff Quarters

It has been accepted in principle that all colleges in the State should be provided with hostels and staff quarters. But this can be achieved as a phased programme. The construction of staff quarters already taken up in respect of three Government Colleges is to be completed. It is also proposed to construct staff quarters in three colleges and hostels in two colleges during the Sixth Plan period.

### 8. *Book Bank Schemes in Government Colleges*

The scheme envisages introduction of Text Book Banks in all Government Colleges in the State so as to give text books on loan to students who are economically backward and to scheduled caste/scheduled tribe students. The scheme had been attracting the assistance of University Grants Commission during the previous years on a proportion of 25 to 75 per cent. As the U.G.C. has now withdrawn the assistance, the entire expenditure has to be borne by the State Government. The plan provision is for the continuance of the programme.

### 9. *Vocationalisation at plus 2 stage*

The Sixth Plan envisages the starting of vocational courses in selected colleges in the State at the Pre-Degree level. The funds allotted for the purpose during 1979-80 was diverted for District Vocational Survey. It is proposed to start vocational courses in selected Government Colleges during the Plan period.

### 10. *Assistance to Non-Government Colleges*

The outlay is for direct payment of salary to Private College Teachers in connection with starting of new courses, shift system and upgradation. During 1979-80 one college was upgraded and new courses were introduced in 31 colleges. New courses have been introduced in 15 colleges. The shift system was started in 26 Colleges during 1980-81. All these have resulted in the creation of a large number of staff, both teaching and non-teaching.

### *Scholarships*

#### 1. *Renewal of Scholarships*

The outlay is for the renewal of scholarships granted to students in Arts, Science, Music, Sanskrit and Sports.

#### 2. *Awards for Students (District-Wise Scholarships).*

Scholarships to best out going students are now being awarded on the basis of State level merit. This leads to a situation where mostly students from areas which are educationally and culturally in the forefront bag these scholarships. It is therefore proposed to institute an award scheme on district basis to make this benefit available to students in backward regions also. Five students who secure the highest marks in the S.S.L.C. Examination in each Revenue District will be given a merit award every year at the rate of Rs. 2000 so long as they continue their studies without failing in examinations.

### *C. Other Programmes*

#### 1. *Student Amenities*

The scheme includes the provision of amenities like water cooler and steel furniture to students in Government Colleges.

#### 2. *Implementation of U.G.C. Assisted Schemes*

The scheme is intended to give matching contribution to construction works in Government Colleges assisted by University Grants Commission.

#### 3. *Development of Under-graduate and Post-graduate Study in Government Colleges with U.G.C. Assistance*

The scheme is meant for the payment of matching grant to U.G.C. assisted schemes to improve educational facilities in Government Colleges at the under-graduate and post-graduate levels.

#### 4. *Study Tour*

Study tour is an integral part of the syllabus in science faculties like Biology, Chemistry, Geography, Geology, etc. The provision is for meeting the expenses connected with study tours in Colleges.

#### 5. *Research*

At present advanced study and research are conducted only in University Departments, and not in affiliated Colleges. If some additional facilities are provided in the laboratories and libraries of some of the leading Government Colleges, they could be raised to the level of Research Centres. The Outlay is to provide research facilities in three Government Colleges in the State during the Sixth Plan period.

#### 6. *Furniture, Library and Laboratory Equipments*

All Government Colleges have to be provided with adequate furniture, library and laboratory equipments. Due to the introduction of shift system and new courses in Government Colleges, the need has become greater. The provision is for meeting the expenditure for the purchase of furniture, equipments, books, etc.

#### 7. *Cost of Land Transferred from Ministry of Defence, Government of India*

The scheme is meant for the payment of the cost of land at Haig Barracks transferred from the Ministry of Defence to the State Government for the construction of buildings for Government College, Malappuram. The total cost of the land amounts to Rs. 36 lakhs.

#### 8. *Remedial Courses—Special Coaching Classes for Scheduled Caste/Scheduled Tribe Students*

The Scheme is meant for starting special coaching classes to SC/ST students at the Pre-Degree and Degree levels, in 30 selected colleges in the State.

#### 9. *I.A.S. Coaching Centres*

The scheme envisages the starting of I.A.S. coaching centres for scheduled caste and scheduled tribe students at Government Victoria College, Palghat and Government Arts and Science College, Calicut.

#### 10. *Book Bank Scheme in the Cosmopolitan Hostels*

The provision is meant for starting book banks in three major cosmopolitan hostels at Trivandrum, Ernakulam and Calicut for students belonging to SC/ST communities.

#### 11. *State Institute of Languages*

The main function of the Institute is to develop Malayalam language into the media of instruction at the University level. Over 650 books in Malayalam have already been published by the Institute on varied

subjects like science, technology social science, languages, etc. The Centrally Sponsored Scheme 'Production of Literature in Indian Languages' has been transferred to State Plan during 1979-80. The provision is to meet the expenditure for production of literature and other programmes like the conduct of seminars and conferences, award of incentive prizes for production of books in Malayalam, production of bulletins and journals, study in humanities and Kerala culture, production of science dictionary and development of the Regional Centre of the Institute. The provision also includes construction of a building for the Institute.

### 12. *The State Institute of Encyclopaedic Publications*

The Institute is dealing with the preparation and publication of Malayalam Encyclopaedia in 20 Volumes. The Institute so far published five volumes and the sixth volume is in the press. The provision proposed is for the continuance of the existing scheme and for implementing new schemes like publication of Children's Encyclopaedia and Publication of Encyclopaedia of Dravidian Culture.

### 13. *Building for Law College, Calicut*

The provision is for the construction of a building for the Law College, Calicut.

## V. **Adult Education**

Several official and non-official agencies are now engaged in the field of Adult Education in Kerala. The programme envisages the education of the illiterates within the age group 15-35, numbering about 13.50 lakhs according to 1971 Census. In Kerala, a massive programme of Adult Education was launched under Centrally Sponsored Scheme which includes opening of adult education centres, conduct of training programmes for the resource persons, preparation of resource materials, etc. The following Schemes are included in the State Sector.

### 1. *Adult Education Programmes*

The provision is for continuing the existing programmes such as the Adult Education Cells in the Directorate and in the Secretariat, expenditure towards the Adult Education Board and Committee, publicity and propaganda, incentive awards, purchase of equipments, etc.

### 2. *Adult Education Programme for Scheduled Caste/Scheduled Tribe.*

The provision is for undertaking adult education programme for the benefit of the scheduled caste and scheduled tribe population in the State. The Scheme envisages the opening of Model Centres for scheduled caste/scheduled tribe population.

## VI. **Physical Education, Youth Welfare and Sports**

### 1. *Improvement of Physical Education and Development of Scouting and Guiding*

The student population of Kerala, constitutes about one fourth of the total population. Therefore it is necessary to lay emphasis on physical education in schools. The provision is meant for the following two schemes.

- (i) Improvement of Physical Education in Schools
- (ii) Development of Scouting and Guiding.

### 2. *Physical Education Colleges*

The Physical Education College at Calicut has recently started functioning. On 1981-82 it is proposed to revive the Physical Education College at Trivandrum also. The outlay is for meeting the salary of staff and for providing accommodation and equipments for the Colleges.

### 3. *Constitution of a Youth Welfare Board*

The provision is for the continuance of the Youth Welfare Board.

### 4. *Youth Festivals*

The scheme is intended to develop cultural activities and artistic talents among school children. The outlay proposed is for giving grants to Youth Festivals, 'sevana varams' etc.

### 5. *N.C.C./N.S.S.*

The provision is for construction works, creation of a publicity Cell in the Directorate of N.C.C., expansion of N.C.C. units etc. The provision also includes the development programmes of National Service Scheme.

### 6. *Planning Forums*

The outlay proposed is for giving grant-in-aid to the Planning Forum Units functioning in Arts, Science and Professional Colleges in the State.

### 7. *Promotion of Kalaripayattu and Circus*

The Scheme envisages the setting up of full-fledged 'Kalaries' in all the District Headquarters as a phased programme by giving grants to private agencies coming forward to undertake the work. It is also proposed to start a circus Training Centre at Tellicherry,

### 8. *Assistance to Kerala Sports Council*

The major items of expenditure incurred by the Sports Council are the maintenance of sports hostels for schools and colleges, salary to coaches, stipends to National Institute of Sports trainees, supply of sports equipments to district sports councils, assistance to rural sports centres and village recreation clubs, conduct of coaching camps, maintenance of play grounds, establishment charges of the Sports Council, financial assistance to sportsmen in indigent circumstances, etc. The provision is for giving grants to Kerala Sports Council for undertaking the above programmes during the Sixth Plan period.

### 9. *Sports School/Opening of New Sports Schools*

The provision proposed is for the pay and allowances of the staff, boarding charges of the pupils and other contingent expenses of the Sports School, Trivandrum, and also for starting two more Sports Schools in the Central and Northern regions of the State.

## VII. Direction, Administration and Supervision

### 1. Strengthening of Supervision and Administration (Primary)

For the purpose of supervising the non-formal education and also for achieving universalisation in the field of primary education, it is necessary to strengthen supervision and administration. The plan provision is for this purpose.

### 2. Strengthening of Administration and Provision of Vehicles

The provision is for the strengthening of the Department of Public Instruction at all levels. It is also intended to provide vehicles to District Officers and other senior officers.

### 3. Strengthening of Planning Machinery in the Directorate of Public Instruction

The Department requires a strong planning machinery at the headquarters and in each of the educational district. The outlay is for the appointment of the staff required for the Unit.

### 4. Planning, Statistics and Administrative wing of Directorate of Collegiate Education

The scheme envisages the strengthening the Planning and Statistical Cell, Provident Fund and Pension Sections, Audit Wing and Scholarship Unit of the Directorate. Necessary provision has been included in the Plan.

### 5. Strengthening of Zonal Offices Deputy Directorate of Collegiate Education

The provision proposed is for strengthening the three Zonal Offices of the Directorate of Collegiate Education at Quilon, Ernakulam and Calicut.

## VIII. Other Programmes including Special Education

### 1. Improvement of Facilities in the existing Special Schools

The existing facilities in the Departmental Special Schools (for the blind, deaf and dumb) are inadequate. The provision is for providing necessary facilities to such schools.

### 2. Integrated Education of the Handicapped—State Share

The provision is towards State's share (50 per cent) for implementing the scheme. The amount is meant for providing additional facilities in the five Departmental schools in the State for integrated education of the handicapped.

### 3. Development of Sanskrit Education

The provision is for award of scholarships to students and also for the conduct of orientation courses to teachers.

### 4. Establishment of a Regional Institute for Language Training

The scheme envisages imparting in-service and orientation courses to all categories of language teachers. The provision proposed is for this purpose.

### 5. Appointment of Hindi Teachers in Non-Hindi speaking States (State's Share)

The provision proposed is the State's share (50 per cent) for appointing Hindi teachers in Upper Primary Schools and High Schools.

TABLE 5.40

### General Education—Scheme-wise Outlay

(Rs. lakhs)

Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>I. Elementary Education</b>							
<b>Quality Improvement Programme</b>							
1. Work Experience Programme in Primary Schools	4.32	5.00 ✓	5.00	30.00	5.00	5.00	1.00
2. Improvement of Science Education in Primary Schools	4.30	5.00 ✓	5.00	30.00	20.00	7.00	3.00
3. UNICEF Assisted Programme	..	..	..	2.50	..	0.50	..
4. Introduction of Socially Useful Productive Work	2.05	3.00 ✓	3.00	15.00	..	3.00	..
<b>Tribal Welfare</b>							
1. Opening of Primary Schools in Tribal Sub-Plan Area—Teacher Cost	0.72	2.00	2.00	10.00	..	3.00	..
2. Supply of Furniture for New Schools in the Tribal Sub-Plan Area	2.00	2.00	2.00	10.00	10.00	3.00	3.00
3. Construction of School Buildings in Tribal Sub-plan Area	..	9.00	9.00	45.00	45.00	10.00	10.00
4. Construction of Staff Quarters in Tribal Sub-Plan Area	..	5.00	5.00	25.00	25.00	5.00	5.00

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Minimum Needs Programme</i>								
1. Additional Enrolment Departmental Lower Primary Schools—Teacher Cost	15.50	20.00 ✓	20.00	125.00	..	30.00	..	..
2. Opening of New Departmental Lower Primary Schools—Buildings	17.53	30.00 ✓	30.00	150.00	150.00	40.00	40.00	40.00
3. Supply of Furniture to New Departmental Lower Primary Schools	4.99	5.00 ✓	5.00	40.00	40.00	8.00	8.00	8.00
4. Additional Enrolment Departmental Upper Primary Schools—Teacher Cost	13.06	20.00 ✓	20.00	125.00	..	30.00	..	..
5. Opening of New Departmental Upper Primary Schools—Buildings	19.94	30.00 ✓	30.00	120.00	120.00	35.00	35.00	35.00
6. Supply of Furniture for New Departmental Upper Primary Schools	5.00 ✓	5.00	5.00	40.00	40.00	8.00	8.00	8.00
7. Supply of Furniture to existing Departmental Lower Primary Schools	4.97 ✓	5.00	5.00	50.00	50.00	10.00	10.00	10.00
8. Supply of Furniture to existing Departmental Upper Primary Schools	3.90 ✓	5.00	5.00	50.00	50.00	10.00	10.00	10.00
9. Improvement of Facilities in Primary Schools	4.97	5.75 ✓	5.75	40.00	40.00	8.00	8.00	8.00
10. Strengthening of Primary Schools—Improvement of Selected Lower Primary Schools	0.15	5.00 ✓	5.00	100.00	..	20.00	..	..
11. Replacement and Addition of Departmental Schools—Buildings	..	9.00	9.00	100.00	100.00	15.00	15.00	15.00
12. Minimum Site and Buildings for Schools run in Rented Buildings	..	25.00	25.00	100.00	100.00	30.00	30.00	30.00
13. Appointment of Primary School Teachers from Scheduled Castes/Scheduled Tribes	0.95	2.00 ✓	2.00	10.00	..	2.00	..	..
14. Additional Enrolment—Non-Government Lower Primary Schools—Teacher Cost	15.50	30.00	30.00	175.00	..	40.00	..	..
15. Additional Enrolment—Non-Government Upper Primary Schools—Teacher Cost	26.50	30.00	30.00	175.00	..	40.00	..	..
<i>Other Programmes</i>								
1. Removal of Backwardness Including Education of Girls	3.00	3.00 ✓	3.00	20.00	..	4.00	..	..
2. Institute of Primary Education	2.27	2.00 ✓	2.00	20.00	..	3.00	..	..
3. Health Education Programme	0.94	0.10 ✓	0.10	3.00	..	0.15	..	..
4. Pre-Primary Education—Building for Pre-Primary Institution	..	1.00 ✓	1.00	15.00	3.00	3.00	1.00	1.00
5. N. C. E. R. T. Assisted Schemes—State's Share	..	..	..	8.00	..	1.50	..	..
6. Experimental Project for Non-Formal Education—State's Share	8.46	10.00 ✓	10.00	75.00	..	15.00	..	..
Sub Total—Elementary Education	161.02	276.95*	275.85	1708.50	798.00	389.15	187.00	187.00
<b>II. Secondary Education</b>								
1. Additional Enrolment Departmental Secondary Schools—Teacher Cost	36.44	30.00 ✓	30.00	200.00	..	55.00	..	..
2. Building and Equipments for New High Schools Including Supply of Soil Testing Equipments to Secondary Schools	..	23.50 ✓	23.50	150.00	150.00	31.00	31.00	31.00
3. Supply of Furniture to Existing Departmental Secondary Schools	6.96	8.00 ✓	8.00	40.00	40.00	8.00	8.00	8.00
4. Construction of New Buildings in the Place of Temporary Schools	..	15.00	15.00	90.00	90.00	20.00	20.00	20.00
5. Introduction of Vocational Courses in Selected Secondary Schools and Upgrading them as Higher Secondary	..	..	..	90.00	30.00	15.00	5.00	5.00
6. Scholarships								
(i) Creation of Scholarship unit and Enhancement of Scholarships	0.38	2.00 ✓	2.00	5.00	..	1.00	..	..
(ii) Award of Scholarships to Meritorious SC/ST Students in upper Primary/Secondary Schools	3.00	3.00 ✓	3.00	18.00	..	5.00	..	..
7. Assistance to Non-Government Secondary Schools—Additional Enrolment Teacher Cost	76.70	40.00	40.00	275.00	..	50.00	..	..

\* The figure includes outlay for Enrolment Campaign at Panchayat level (Rs. 1.00 lakh) and Establishment of Text Book Ban (Rs. 0.10 lakh).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Quality Improvement Programme</i>								
1. Improvement of Science Education in Secondary Schools	2.30	4.00 ✓	4.00	30.00	15.00	5.00	2.00	..
2. Work-oriented Education in Secondary Schools	6.60	5.25 ✓	5.25	25.00	..	5.00	..	..
3. Vocational Guidance Programme	0.97	1.00 ✓	1.00	5.00	..	1.00	..	..
4. Improvement of Library and Laboratory facilities in Departmental Secondary Schools	8.82	6.00 ✓	6.00	30.00	..	6.00	..	..
5. State Institute of Education	3.30	3.00 ✓	3.00	35.00	10.00	7.00	2.00	..
6. Institute of Science	1.86	2.00 ✓	2.00	10.00	..	2.00	..	..
7. Examination Reforms	0.50	0.50 ✓	0.50	5.00	..	1.00	..	..
8. Revision of Curriculam	0.54	1.00 ✓	1.00	5.00	..	1.00	..	..
9. School Complex Programme	0.67	1.00 ✓	1.00	5.00	..	1.00	..	..
10. Strengthening of Staff of large Secondary Schools	0.08	2.00 ✓	2.00	20.00	..	4.00	..	..
<i>Other Programmes</i>								
1. Library Movement	2.20	2.50 ✓	2.50	12.00	..	3.00	..	..
2. Popularisation of Science Literature	2.25	0.50 ✓	0.50	2.50	..	0.50	..	..
3. Coaching Class for Sch. Caste/Sch. Tribe Students in S.S.L.C. Classes	0.79	2.00 ✓	2.00	12.00	..	2.50	..	..
4. Formation of a Society for School Promotion and Development	..	4.00 ✓	4.00	20.00	..	5.00	..	..
5. Population Education in Secondary Schools -State's share	..	..	..	11.00	..	2.15	..	..
Sub Total—Secondary Education	155.34	160.25*	160.25	1095.50	335.00	231.15	68.00	..
<i>III. Teacher Education</i>								
1. Teacher Training-Primary	5.94	6.00	6.00	45.00	..	10.00	..	..
2. Teacher Training-Secondary	3.84	4.00	4.00	25.00	..	5.00	..	..
Sub Total-Teacher Education	9.78	10.00	10.00	70.00	..	15.00	..	..
<i>IV. University Education</i>								
<i>A. Development of Universities</i>								
1. Assistance to Universities								
Kerala				150.00	50.00	30.00	10.00	
Cochin				240.00	100.00	48.00	20.00	
Calicut				150.00	50.00	30.00	10.00	
2. Ship Technology Course Grant-in-aid to Cochin University	60.00	74.00 ✓	74.00	10.00	..	2.00	..	..
<i>B. Development of Colleges</i>								
1. Starting of New Government Colleges	..	10.00 ✓	10.00	100.00	40.00	20.00	10.00	..
2. Building for Existing Colleges	6.99	10.55 ✓	34.00	60.00	60.00	20.00	20.00	..
3. Upgrading of Colleges	..	5.00 ✓	5.00	30.00	5.00	6.00	1.00	..
4. Starting of New Courses in Government Colleges	2.13	5.00 ✓	5.00	30.00	..	6.00	..	..
5. Introduction of Shift System/Evening Courses in Government Colleges	2.045	2.00 ✓	30.00	150.00	..	40.00	..	..
6. Introduction of Part-time course in Law Colleges	0.50	1.00 ✓	1.00	10.00	..	2.00	..	..
7. Hostels and Staff Quarters	3.64	5.00 ✓	5.00	30.00	30.00	6.00	6.00	..
8. Implementation of Book Bank Scheme in Government Colleges	0.80	2.00 ✓	2.00	10.00	..	2.00	..	..
9. Vocationalisation at Plus 2 Stage	..	1.00 ✓	1.00	15.00	3.00	3.00	0.50	..
10. Direct payment of Salary to Private College Teachers in connection with Shift System, Upgradation and Starting of New Courses	3.55	80.00 ✓	80.00	450.00	..	90.00	..	..
<i>Scholarships</i>								
1. Renewal of Scholarships	1.16	1.00	1.00	9.00	..	2.00	..	..
2. Awards for Students	..	1.10	1.10	12.00	..	1.10	..	..
<i>C. Other Programmes</i>								
1. Student Amenities	..	1.00 ✓	1.00	5.00	5.00	1.00	1.00	..
2. Implementation of U.G.C. Assisted Schemes	1.92	15.00 ✓	27.00	80.00	60.00	15.00	12.00	..
3. Development of U.G./P.G. studies in Government Colleges with U.G.C. Assistance	1.76	3.00 ✓	3.00	30.00	..	5.00	..	..
4. Study Tour	0.61	1.00 ✓	1.00	9.00	..	2.00	..	..
5. Research	..	1.00 ✓	1.00	9.00	3.00	3.00	1.00	..
6. Furniture, Library and Laboratory Equipments	0.99	5.00 ✓	5.00	50.00	40.00	9.00	6.00	..
7. Cost of Land Transferred from Defence Ministry, Government of India	..	5.00 ✓	5.00	10.00	10.00	2.00	2.00	..

\* Outlay includes outlays for construction of School Buildings through C.D. Blocks transferred to Head of Development Community Development and Panchayats and Establishment of Schools for Talented Children.



	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
8. Remedial Courses/Special Coaching for Scheduled Caste/Scheduled Tribe Students	..	..	..	20.00	..	4.00	..	..
9. I.A.S. Coaching Centres	..	..	..	7.50	..	1.50	..	..
10. Book Bank Scheme in Cosmopolitan Hostels	..	..	..	15.00	..	3.00	..	..
11. State Institute of Languages	13.50	15.00	15.00	90.00	20.00	18.00	5.00	..
12. State Institute of Encyclopaedic Publication	3.00	5.00	6.00	50.00	..	8.00	..	..
13. Building for Law College, Calicut	..	1.00	1.00	15.00	15.00	5.00	5.00	..
Sub Total University Education	102.59	250.65	315.10	1846.50	491.00	383.60	109.50	..
<b>V. Adult Education</b>								
1. Adult Education	6.63	22.50	22.50	45.00	..	9.00	..	..
2. Adult Education for Scheduled Caste and Scheduled Tribes	..	2.50	2.50	5.00	..	1.00	..	..
Sub Total Adult Education	6.63	25.00	25.00	50.00	..	10.00	..	..
<b>VI. Physical Education, Youth Welfare and Sports</b>								
1. Improvement of Physical Education in Schools and Development of Scouting and Guiding	3.43	4.00 ✓	4.00	20.00	..	4.00	..	..
2. Physical Education Colleges	0.64	1.00 ✓	1.00	10.00	..	2.00	..	..
3. Constitution of a Youth Welfare Board	0.41	1.00 ✓	1.00	5.00	..	1.00	..	..
4. Youth Festival	1.00	1.00	1.00	5.00	..	1.00	..	..
5. N.C.C./N.S.S.	2.02	4.00 ✓	4.00	10.00	7.00	2.00	2.00	..
6. Planning Forums	0.36	1.00 ✓	1.00	5.00	..	1.00	..	..
7. Promotion of Kalaripayattu and Circus	0.01	1.00 ✓	1.00	5.00	1.00	1.00	..	..
8. Assistance to Kerala Sports Council	35.00	60.00 ✓	60.00	150.00	20.00	40.00	5.00	..
9. Sports School, Trivandrum	5.04	5.00	5.00	75.00	10.00	15.00	1.00	..
Sub Total—Physical Education Sports and Youth Welfare	48.86*	80.00*	78.00	285.00	38.00	67.00	8.00	..
<b>VII. Direction and Administration</b>								
<i>Primary Education</i>								
1. Strengthening of Supervision and Administration	..	2.00	2.00	20.00	..	5.00	..	..
<i>Secondary Education</i>								
2. Strengthening of Administration and Provision of Vehicles to Dy. Directors and District Educational Officers	14.06	40.00	40.00	230.00	30.00	50.00	5.00	..
3. Strengthening of Planning Machinery in the Directorate of Public Instruction	0.30	1.00	1.00	5.00	..	1.00	..	..
<i>Collegiate Education</i>								
4. Strengthening of Planning, Statistics, Academic and Administrative Wings of the Directorate of Collegiate Education	..	1.00 ✓	3.00	10.00	..	2.00	..	..
5. Strengthening of Zonal Offices—Deputy Directorate of Collegiate Education	..	1.00 ✓	1.00	8.00	..	1.50	..	..
Sub Total Direction and Administration	14.36	45.00	47.00	273.00	30.00	59.50	5.00	..
<b>VIII. Other programmes including special Education</b>								
1. Improvement of Facilities in Existing Special Schools	2.00	3.00	3.00	18.00	10.00	4.00	2.00	..
2. Integrated Education of the Handicapped—States' Share	..	1.25	1.25	5.00	..	1.50	..	..
3. Development of Sanskrit Education	1.25	5.00 ✓	5.00	20.00	..	5.00	..	..
4. Establishment of a Regional Institute for Language Training	2.90	3.00	2.00	15.00	..	3.00	..	..
5. Appointment of Hindi Teachers in Non-Hindi Speaking States—States Share	18.76	10.00 ✓	10.00	50.00	..	10.00	..	..
Sub Total Other Programmes	24.91	23.25*	23.25*	108.00	10.00	23.50	2.00	..
Total—General Education (I to VIII)	523.49	871.10	934.45	5436.50	1702.00	1173.99	379.50	..

\* Includes provision for providing facilities for Sports Division in Departmental Schools.

\* Outlay includes provision for starting a School for Mentally Handicapped transferred to Social Welfare.

## Art and Culture

The various plan programmes under Art and Culture are provided below:

### 1. Music Colleges and Academies

With the upgradation of the Music Academies at Tripunithura and Palghat into music colleges and with the affiliation of the Sri Swathi Thirunal College of Music, Trivandrum, to the University of Kerala, additional facilities have to be provided in all these institutions. These include creation of visiting professorships in all the three Music Colleges and construction of an air-conditioned library with tape-recording facilities at Sri Swathi Thirunal College of Music, Trivandrum

### 2. Kerala Sahitya Academy

Kerala Sahitya Academy is engaged in promotion of literature. Its main activities are production of children's literature, translation of Malayalam books into other languages and books from other languages into Malayalam, award of incentives to talented writers for producing original contributions in the fields of literature and literary criticism, production of books on literature, language and cultural heritage, conduct of seminars and symposia, etc. The Silver Jubilee of the Academy falls during the year 1981-82. The outlay earmarked is for meeting the expenses for the above programmes during the Sixth Plan period.

### 3. Kerala Sangeetha Nataka Academy

The Kerala Sangeetha Nataka Academy has a programme for the development of music and the performing arts. The schemes include a folk-lore museum, library, a mobile theatre, inter-state drama festivals, and organisation of short-term theatre courses in technical subjects like make-up, stage-setting and lighting. The amount provided is for implementing the above programmes during the Plan period.,

### 4. Kerala Lalithakala Academy

The main function of the Kerala Lalithakala Academy is to encourage fine arts like painting and sculpture. Apart from continuing the present activities, the Academy needs further expansion. The other schemes proposed are setting up of art galleries for organising one-man exhibitions of paintings as well as of paintings by a group of artists at the Academy at Trichur and provision of quarters at Trichur for artists coming from other parts of India and from abroad for the study of fine arts of Kerala.

### 5. Kerala Kalamandalam

The Kerala Kalamandalam was established in 1930 with the main objective of reviving Kathakali, the unique theatrical art form of Kerala. Kalamandalam is doing valuable services for the promotion of traditional arts like Koodiyattam, Mohiniyattam, Bharatha Natyam, Ottamthullal, etc. besides Kathakali and allied arts. In order to make instruction in 'Kathakali Vesham,' Music, etc. a Thekkankalari was started during 1978-79. The following programmes are envisaged in the Sixth Plan: (i) construction of hostels and

Kalaries, (ii) construction of an open-air theatre (iii) shifting of museum to the Poet Vallathol's house (iv) documentation and preservation of art forms (v) starting of new departments, (vi) improvement of Koodiyattam Department and (vii) providing facilities for research on subjects related to the art forms of Kerala. The provision is for meeting the expenses of the continuing schemes and for taking up some of the new schemes according to priority.

### 6. Development of Traditional Art Forms (Vasthu Silpa, Thalavadya etc.)

Kerala's traditional architecture has many attractive features worth preservation and promotion. The hereditary wisdom and practical knowledge and skill of the veterans belonging to the old generation of carpenters has to be preserved and promoted. The traditional architecture is based on works such as 'Silparatna' and 'Tantrasamuchya' for temples and institutions and 'Manushyalayachandrika' for residences. In order to preserve and promote this traditional wisdom of architecture most suited to the climatic conditions and cultural personality of the State, a Vastuvidyalaya is proposed to be established. The Vastuvidyalaya will impart training in Kerala's traditional architecture and sculpture in wood. The Vidyalyaya will be established on Gurukula Style with a small hut for each Guru to meet residential-cum-teaching requirements and necessary buildings for accommodation. The Thalavadyas of Kerala on the Chenda, Meddalam, Thimila etc. have earned a unique place in the field of rhythm. Therefore it is proposed to give fellow-ships to the veterans in the field. during the plan period.

### 7. Kathakali (Thekkan Kalari) and Kutiyattom

Kathakali which has earned Kerala a great reputation in the field of art, has two district styles viz. the Kalluvazhi, typical of Northern and Central Kerala and Kitangoorvazhi which is a legacy of south Kerala. The Kerala Kalamandalam located in the Central Kerala is promoting only the 'Kalluvazhi' style. The 'Kidangoorvazhi' style which has the same power and even greater diversity and grace than the Northern style suffered neglect owing to lack of patronage. The plan provision is for establishing Thekkankalari at Trivandrum.

Kutiyattom is the only surviving form of presentation of Sanskrit dramas in the whole of India. The suitability of this highly evolved art form for presentation of Sanskrit dramas, has been acknowledged by the art lovers all over India and, of late, the foreign countries. For the revival of this theatrical art form, it is proposed to establish at Trivandrum a Performance-cum-Training Institute for Kutiyattam. The plan outlay is also meant for the development of Kutiyattam.

### 8. Kerala History Association

The Kerala History Association has proposed to take up a project on 'Makers of Modern Kerala', under this project materials on the life and activity of 52 eminent men who can be considered as makers of modern Kerala will be collected and published. The provision is for giving grant-in-aid to the History Association during the Plan period.

### 9. Kerala Gazetteers

The Department of Kerala Gazetteers is engaged in the work of preparing the District Gazetteers of Kerala, the issue of supplements to the District Gazetteers which were published a decade back and the preparation of the State Gazetteer of Kerala. The Department has so far published nine District Gazetteers. The outlay provided in the plan is for continuing the existing programmes and for revision and re-editing work on Kerala History.

### 10. Non-recurring Grants to Cultural Activities

There are various voluntary organisations in the State engaged in the promotion of art and culture. The plan outlay earmarked is for giving non-recurring financial assistance to such organisations.

### 11. Financial Assistance to Men of Arts and Letters

The scheme envisages award of pension to writers and artists who live in indigent circumstances. The plan provision is for continuing the scheme and to bring within its ambit the masters of traditional crafts like carpentry, wood-carving, ivory-carving etc.

### 12. Memorials to Eminent Men of Arts and Letters

At present there are mainly three memorials, viz. Thunchan Memorial at Tirur, Asan Memorial at Thonakkal and Kunchan Memorial at Ambalapuzha. The State Government have framed rules for the payment of grants to the Managing Committees which have been set up for the administration of these memorials. The plan provision earmarked is for giving grants for the establishment and maintenance of these memorials.

### 13. Grant-in-Aid to Authors for Production of Books.

This scheme is meant for providing financial assistance to authors for the production of books. This type of assistance is given only for the publication of works of literary or educative value and only to authors who are not able to meet the cost of publication by themselves. The outlay is for continuing the scheme during the Sixth Plan period.

### 14. Archaeology

The Archaeology Department of the State lacks both in equipments and trained personnel for the efficient functioning on modern lines. It is proposed to develop the Department by providing necessary facilities such as additional staff, building and equipments. The Plan provision is also for continuing the various schemes already taken up such as the re-organisation of the Department, Institute of Folk-lore and Folk Arts, School of Epigraphy, Light and Sound programme at Padmanabhapuram Palace, Development of Regional Conservation Laboratory etc. The display techniques in the Archaeological Museum at Ernakulam are to be improved by adding to the collections and display equipments. The provision is also for the acquisition of places of archaeological importance and for acquisition of Hill Palace at Thripunithura for Archaeological Museum.

### 15. Archives

The State Archives Department has three Regional Offices located at Trivandrum, Ernakulam and Calicut. The schemes under implementation are construction of modern building for the Department, purchase of equipments for better preservation of age-old records, acquisition of records of historical importance and archival value, training programmes etc. The plan provision allocated is for continuing the existing schemes.

### 16. Development of Museums and Zoos

Kerala has three Museums and Zoo Complexes located at Trivandrum, Trichur and Calicut. The Shri Chitra Art Gallery at Trivandrum is also under the control of the Department of Museum and Zoos. It has at present a number of schemes which are in the process of being implemented. The most important among them are:

- (i) Construction of a new building for Shri Chitra Art Gallery
- (ii) Development of Museum and Zoo at Trichur
- (iii) Development of Art Gallery at Calicut.
- (iv) Expansion of Museum and Zoo at Trivandrum, and
- (v) Strengthening the administrative set up in the Directorates.

The provision allotted is for continuing the existing programmes

### 17. Public Library, Trivandrum.

The State Central Library, Trivandrum, occupies a pivotal position in the library set up of the State. In a modern library like the State Central Library, repographic services and book preservation methods are considered essential. Hence two schemes, one for installing a photocopying machine for repographic service and another for air-conditioning a portion of the library building for the preservation of rare books are under implementation. The other programmes envisaged in the plan are establishment of a micro-film unit, construction of a building for children's library, and setting up a book preservation laboratory. The provision earmarked is meant for continuing the Schemes in operation and to take up some of the new schemes on priority basis.

### 18. Kerala Grandhasala Sangham

The Kerala Grandhasala Sangham with 4091 libraries affiliated to it, is the co-ordinating agency in the State's library movement. This voluntary organisation has been rendering valuable services in the promotion of education and culture during the last three and a half decades. The outlay provided in the Plan is mainly meant for enhancing the grant amount given to libraries. The provision is also for the following continuing schemes:

- (i) Village and bell-bicycle libraries
- (ii) neo-literate courses in 300 village libraries giving due share to harijan libraries.
- (iii) publication of the weekly 'Sakshara Keralam', and
- (iv) expansion of the Grandhasala press.

TABLE 5.4i

## Art and Culture—Scheme—Wise Outlay

(Rs. lakhs)

Sl. No.	Name of the Scheme/Project	1979-80	1980-81		1980-85		1980-81	
		Actuals	Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Music Colleges and Music Academies	1.12	2.80	2.80	15.00	2.00	3.00	..
2.	Kerala Sahitya Akademy	2.00	2.00	6.00	15.00	..	3.00	..
3.	Kerala Sangeetha Nataka Akademy	1.00	1.00	1.00	7.00	2.00	2.00	0.50
4.	Kerala Lalitha Kala Akademy	1.95	1.00	5.40	10.00	2.00	2.00	0.50
5.	Kerala Kalamandalam	2.65	2.00	2.82	16.00	5.00	3.00	1.00
6.	Development of Traditional Art Forms (Vastu, Silpa, Thalavadya etc.)	..	0.25	0.25	3.00	0.25	0.60	..
7.	Kathakali (Thekkankalari) and Koodiyattam at Trivandrum	..	1.25	1.25	7.00	0.50	2.60	..
8.	Kerala History Association	0.50	0.50	0.50	3.00	..	0.75	..
9.	Kerala Gazetteers	0.50	1.10	1.10	6.00	..	1.50	..
10.	Non-recurring Grants to Cultural Activities	0.50	0.50	0.50	4.00	..	1.00	..
11.	Financial Assistance to Men of Arts and Letters	2.50	4.00	4.00	16.00	..	4.00	..
12.	Memorials to Eminent Men of Arts and Letters	0.50	0.50	0.50	4.00	..	0.75	..
13.	Grant-in-Aid to Authors for Production of Books	0.50	0.50	0.50	4.00	..	1.00	..
14.	Archaeology (Including Archaeological Museum)	1.50	9.60	9.60	100.00	50.00	20.00	10.00
15.	Archives	0.37	3.00	3.00	15.00	5.00	3.00	1.00
16.	Development of Museums and Zoos	1.00	5.00	6.00	50.00	20.00	10.00	5.00
17.	Public Library, Trivandrum	0.50	4.00	7.75	25.00	10.00	5.00	2.00
18.	Kerala Grandhasala Sanghom	4.60	4.00	4.00	20.00	..	5.00	..
Total-Art and Culture		21.69	43.00	56.97	320.00	96.75	68.20	20.00

**Technical Education**

In the field of technical education, Kerala did not lag behind the rest of India at least in quantitative growth. At present, undergraduate education is being conducted in six engineering colleges. Facility of post-graduate education exists in the two government colleges and in the Regional Engineering College. Also facilities exist in the two government colleges for part time engineering degree course for diploma holders. The other institutions existing in Kerala in the field of technical education are 19 polytechnics and 25 Junior Technical Schools. There are also 15 Pre-Vocational Training Centres which provide technical education to drop-outs from schools, in selected trades. Under Technical Education the following schemes are included in the Sixth Plan.

1. *Direction and Administration—Strengthening of Planning and Statistical Cell and Examination Wing.*

The Directorate of Technical Education needs strengthening with adequate machinery for manpower assessment, planning and monitoring and evaluation programmes. The academic inspection wing will have to be strengthened with technical officers who are competent in various fields. The plan provision made is for meeting the expenditure towards the strengthening of the Directorate and also for the construction of the Administrative Block of the Directorate.

*Government Engineering Colleges and Other Institutions*

1. *Consolidation of Facilities in the Engineering Colleges*

With the increase in intake, diversification of courses, curriculum development, starting of new elective subjects etc, there is an immediate need for additional floor area in the engineering Colleges and other technical institutions. A new orientation of teaching practices calls for special equipments. Rationalisation of the existing courses also requires restructuring of the laboratories. The scheme envisages special attention to institutions where the infrastructure is relatively weak.

2. *Starting of One Engineering College*

The demand for admissions to the engineering colleges is fast increasing and only a small group of applicants could secure admission. Since it is not feasible to increase the intake in any of the existing institutions as they are working up to their full capacity, there is a felt need for a new engineering college which will not duplicate the effects of the present institutions with respect to disciplines of study. The provision is for providing the infrastructure before starting the college. The college will be started in the last year of the Sixth Plan.

### 3. *Post-graduate Course in the College of Engineering, Trivandrum*

The provision made in the Plan is towards the salary of staff, contingencies, purchase of equipments, scholarships to students etc.

### 4. *Post-Graduate Courses in the College of Engineering, Trichur*

The outlay is meant for the salary of teachers, scholarships, equipments etc. and also for the introduction of additional post-graduate courses of importance and felt needs in emerging areas.

### 5. *Upgrading of One Engineering College*

It is proposed to upgrade the College of Engineering, Trivandrum, by providing centralised facilities. The following programmes are envisaged:

(i) The Centre for Fundamental and Applied Research will initiate and sponsor Research and Development in areas of importance to the State and co-ordinate the research programmes at present being conducted in the college. It will also collaborate with national and regional institutions and also bodies like C. S. I. R., U. G. C., Science and Technology Department and receive and distribute grants to projects.

(ii) The Central Technical Library and Documentation Centre.

(iii) The Centre for Quality Improvement is intended to improve the standard of teaching and training by sponsoring higher educational programmes in various diversified fields.

### 6. *Assistance to Computer Centre*

The Computer Centres at the College of Engineering is provided with an IBN. 1620 computer with the introduction of different computer courses. At the under-graduate courses the computer time required has substantially increased and the present computing system available is inadequate to cope with this. The capacity can be augmented with the addition of memory models to the existing machine. The provision made is towards the expenditure for increasing the capacity of the computer.

### 7. *Part-time Course*

At present part-time degree courses are being conducted in the Trivandrum and Trichur Engineering Colleges for diploma holder and in 4 polytechnics for diploma. The present courses are only in civil, mechanical and electrical. The facilities are to be extended to electronics and other fields.

### 8. *Granting of Autonomy to One Engineering College*

It is proposed to raise one of the engineering colleges in the State to the level of autonomous body. This institution would need autonomy not only academically but also administratively and financially. The provision made in the Plan is for the purpose.

## **Polytechnics**

### 1. *Consolidation of Facilities in Polytechnics (Existing)*

The polytechnics in the State are at different levels of growth and need substantial financial investment for consolidation and modernising the facilities in the workshops, laboratories and libraries. The outlay is meant for the above programmes.

### 2. *Newly Started Polytechnics*

It is accepted as a policy to provide facilities for technical education in unrepresented areas of the State. Government have sanctioned the starting of two polytechnics, one at Palghat and the other at Idduki. The polytechnic at Palghat has already started functioning. The Plan provision is for meeting the capital cost and recurring expenditure of the new institutions.

### *Junior Technical Schools*

#### 1. *Existing Junior Technical Schools*

The Junior Technical School Education is in high demand. The intake in the case of Junior Technical Schools has been increased and courses diversified. The facilities in the existing Junior Technical Schools have to be improved and workshops modernised. The provision in the Plan is for this purpose.

#### 2. *Newly Started Junior Technical Schools*

The Government have sanctioned four Junior Technical schools at Palghat, Kuttipuram, Idukki and Sultan Battery. The new institutions have to be provided with land, buildings and furniture. The Plan provision is for meeting the expenditure of staff to be appointed during the Sixth Plan period.

#### 3. *Vocationalisation of Education at Post-Secondary Stage in Junior Technical Schools*

In the Junior Technical Schools, vocationalisation has already been implemented at the secondary school level. It is proposed to introduce vocationalisation in those institutions at the plus two stage.

### *Other Institutions*

#### 1. *Pre-Vocational Training Centres*

Pre-Vocational Training Centres are intended for drop-outs from schools. They provide training in job-oriented trades at Upper Primary level. The scheme envisaged practical and job-oriented training in addition to the normal school education, leading to continuing education in Junior Technical Schools. It is proposed to attach Pre-Vocational Training Centres to the remaining 12 Junior Technical Schools which do not have a Pre-Vocational Training Centre attached to it. The Plan outlay is also for providing additional facilities in the existing Pre-Vocational Training Centres.

#### 2. *Centre for Diploma in Commercial Practice*

The Plan provision is for meeting the expenditure on acquisition of land and construction of building, purchase of equipment, re-organisation of the present

courses at the existing Centres and organisation of new courses proposed during the Sixth Plan period.

### 3. Tailoring and Garment-Making Centres

These centres impart education to girls who do not have the opportunities for higher education, in a useful trade for self-employment. Most of the institutions are now functioning in rented buildings. It is necessary to provide the institutions buildings of their own. It is also proposed to start new centres in unrepresented areas. The Plan provision is for this purpose.

### 4. Tailoring and Garment-Making Centres for Scheduled Castes and Scheduled Tribes

At present the Department is running a Centre at Mannarghat for the benefit of SC/ST candidates. It is necessary to open new centres in tribal areas where SC/ST population is concentrated. The provision is for continuing the existing centres and for opening more centres.

### 5. College of Fine Arts

The College of Fine Arts at Trivandrum is conducting B.F.A. courses in painting, sculpture and applied arts. The U.G.C. have recommended the improvement of facilities that are of essential nature for the satisfactory conduct of the course. These include improvement of studio facilities, development of library, provision of audio visual aids for teaching, appointment of Visiting Professors, construction of buildings for museum, arts gallery etc. The provision is also meant for the improvement of the Fine Arts Institutes at Mavelikara and Trichur.

### 6. Food Craft Institute at Kalamassery

The Food Craft Institute at Kalamassery conducts certificate level courses in bakery and confectionary, cookery, canning and food preservation, hotel management etc. Considering the great demand, a centre at Calicut has been opened and another centre, is proposed to be started at Trivandrum. A full-fledged Diploma Institute is proposed to be attached to the present Food Craft Institute. The provision is for the above programmes.

### Assistance to Non-Government Engineering Colleges and Institutions

#### 1. Private Engineering Colleges

The scheme envisages payment of grants to the three private engineering colleges at the approved rate of the total cost for development and expansion, construction of buildings, purchase of equipments etc. Revision of staff structure, modernisation of laboratories etc. are also contemplated.

#### 2. Private Polytechnics

The provision is for giving grants to private Polytechnics. Starting of new courses, revision of staff, construction of buildings, modernisation of laboratories etc. are also envisaged under the scheme.

### 3. Assistance to Regional Engineering College, Calicut

The provision is towards financial assistance to the Regional Engineering College for campus development.

### Research and Training

#### 1. Centres of Excellence

In this era of sophisticated technology each institution should strive to develop centres of excellence. In these Centres facilities by way of staff, equipment and consultancy will be better than in other centres. Some of the areas in which the engineering colleges have already established themselves are geotechnical engineering, production, materials and construction technology and coastal and ocean engineering. The Plan scheme envisages establishment of the following centres.

- (i) Centre for Geo-Technical Engineering
- (ii) Appropriate Technology Centre
- (iii) Bio-Technology Centre
- (iv) Energy Research Centre
- (v) Centre for Electronic Testing and Evaluation

The Plan provision is for meeting the initial expenses of establishing such centres.

#### 2. Apprenticeship Training

The activities of the placement and training section in the Directorate of Technical Education comprise of apprenticeship training, conduct of supervisory development programmes for engineering apprentices in industries, conduct of career-guidance programmes, training of fresh diploma holders etc. The Plan scheme also envisages construction of a building for the existing supervisory Development Centre at Kalamassery. The provision is also for installing a mini-computer with adequate capacity for the purpose of data storage and retrieval.

#### 3. Management Education

The scheme envisages starting of management training courses for the benefit of the degree and diploma holders. Entrepreneurial development programmes to identify and necessary support to entrepreneurs are also envisaged.

### Other Programmes

#### 1. Faculty Development

The scheme envisages that the minimum qualifications for polytechnic teacher at lecturer's level should be a degree in Engineering and the Head of the section should preferably be a Master's degree holder. In the Engineering Colleges, the deputation of teachers for Master's and Doctoral courses has to be continued with increased incentives. It is also proposed to introduce Doctoral Courses in Engineering College, Trichur. The other programmes envisaged under the scheme are staff training programme in collaboration with the National Institute of Training, and deputation of teaching staff to work in responsible positions in industry.

## 2. *Modernisation of Laboratories*

Modernisation of workshops and laboratories in engineering colleges and polytechnics through replacement of worn-out machinery by new ones is essential. The Plan outlay made is for this purpose.

## 3. *Central Instrument Workshop*

A Central Instrument Workshop for repair and maintenance of sophisticated instruments and equipments has been set up in the Engineering College, Trivandrum. This Centre is intended to cater to the needs of professional and scientific institutions in the State. The Plan provision is for meeting the cost of the building, equipments and staff of this Centre during the Plan period.

## 4. *Industrial Residencies*

The scheme envisages instituting professorship and guest lectures in polytechnics and engineering colleges to maintain collaboration between teaching institutions and industrial establishments.

## 5. *Revision of Staff Structure*

In order to ensure academic excellence, the staff pattern has to be fixed on a scientific basis, both in academic and administrative fields of the teaching institutions including workshops and laboratories. The outlay is meant for the additional expenditure to be incurred consequent on the revision of staff structure.

## 6. *Extension Centre of Technical Teachers' Training Institute*

The Extension Centre presently housed in the Government Polytechnic, Kalamassery, is a joint endeavour of the State and Central Governments. The Plan provision is for the construction of a separate building for the Extension Centre.

## 7. *Diversification of Courses*

In the case of engineering colleges, the scheme envisages starting of courses in new emerging technologies like production engineering, micro-electronics, power system and control etc. In respect of Polytechnics, the scheme envisages diversification through the introduction of elective subjects, starting of new post diploma courses in disciplines like industrial electronics, air-conditioning and refrigeration, foundry technology, bio-medical engineering etc. With regard to Junior Technical Schools, the scheme is for introduction of new job oriented trades.

## 8. *Student Amenities*

Most of the technical institutions lack facilities like canteen, mess halls, recreation rooms, auditorium, playgrounds, hostels etc. The provision is for creating such facilities in the institutions.

## 9. *Establishment of Work Centres*

Work centres are intended to give training to those who could not get the opportunity to undergo institutionalised training in the skill in which they are engaged. For this purpose, the infrastructure facilities

in the Junior Technical Schools and Polytechnics in the State are proposed to be utilised.

## 10. *Library Development*

The present library facilities are inadequate in most of the Engineering Colleges, Polytechnics and other technical institutions. Besides the purchase of books, the libraries should be provided with furniture and space for proper upkeep and display of books. Reprographic and documentation facilities are also envisaged under the scheme.

## 11. *Science and Technological Museum*

The Government have sanctioned the establishment of a Science and Technological Museum. Acquisition of site, construction of building, collection of exhibits, creation of an organisational structure etc. are to be undertaken for the implementation of the scheme.

## 12. *Curriculum Development Centre*

The Department has to meet the expenditure of staff and other contingencies of the Extension Centre established at Kalamassery. The Centre is instituted for re-organisation and development of polytechnic education, through teacher training, curriculum development, support materials for courses etc.

## 13. *Industrial Liaison*

In order to evolve a need-based and job-oriented system of education, the linkage between technical institutions and industries is essential. Project works and guest lectures periodically by expert staff in industry to the students and staff of institutions will be continued. The scheme also envisages co-operative programmes of education and seminars with industrial support in selected fields.

## 14. *Teaching Aids*

Developments in the field of educational technology have made available a variety of aids. Unless the various institutions are equipped with audio-visual aids, charts, models etc., the impact of the revision is lost and teaching becomes very ineffective. The scheme envisages the establishment of Centres for design and fabrication of teaching aids in selected institutions, which will help to bring out the creative talents of faculty.

## 15. *Free Supply of Text-books to Scheduled Castes and Scheduled Tribes*

The Scheduled Caste/scheduled tribe students need special attention to make up for the backlog of time in their advancement to the level of other developed sections of the community. The scheme envisages free supply of text books, uniforms, calculators, instruments etc., to be supplied to them in the engineering colleges, polytechnics and junior technical schools.

## 16. *Book Banks*

The scheme envisages the supply of books in the Book-Banks of the government and private institutions, for the use of economically weaker sections of the students.

### 17. Matching Grants for Central Schemes

When special direct Central assistance is given to the institutions for development, a matching share has to be provided by the State government. The provision is for meeting the expenditure in respect of such schemes.

### 18. Remedial Courses to Reduce Wastage

In spite of competitive methods of selection, there has always been a percentage of weak students who need special attention. This is particularly true of the students coming from scheduled caste and backward communities, owing to lack of environmental facilities. To reduce wastage and to enable all these students to come to the standard expected of the courses, remedial action in the form of special classes, tutorial sessions etc., is envisaged under the scheme.

### 19. Construction of Staff Quarters

The scheme envisages construction of staff quarters for members of the staff in the various institutions.

### 20. Special Coaching for All-India Competitive Examinations

The scheme envisages special coaching for students, especially for students coming from weaker sections,

in the All India Engineering Services and other competitive examinations. Special guidance programmes for career development are also envisaged under the scheme.

### 21. Rural Development Centres

These Centres are expected to identify areas of skill in agriculture and industry on the basis of a survey to find out how many people need basic materials and the topics on which information is needed, for example, small industries, house construction etc.

### 22. Technological University—Preliminary Studies

To provide for a proper orientation and growth to technical education, it is necessary that the management of technical education be separated from general education system. Academic autonomy to institutions will be the long-term goal and to start with, autonomy should be given to institutions of proven worth under the direction of a Technological University. A token provision is made for conducting preliminary studies on the establishment of a Technological University in the State.

TABLE 5.42

#### Technical Education—Scheme wise Outlay

Sl. No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>C. Technical Education</b>								
1.	Direction and Administration, strengthening of Planning and Statistical Cell and Examination wing	2.13	6.00	4.00	50.00	15.00	8.00	..
<i>Government Engineering Colleges and Institutions</i>								
1.	Consolidation of Facilities in the Engineering Colleges	20.06	11.00	6.00	50.00	15.00	10.00	5.00
2.	Starting of one Engineering College	..	..	..	50.00	40.00	..	..
3.	Post Graduate Courses in the Engineering College, Trivandrum	14.50	16.00	16.00	50.00	20.00	10.00	5.00
4.	Post Graduate Courses in the Engineering College, Trichur	4.35	10.00	10.00	40.00	15.00	8.00	3.00
5.	Upgrading of one Engineering College	..	15.00	14.50	50.00	5.00	10.00	0.50
6.	Assistance to Computer Centre	0.48	1.00	1.00	10.00	10.00	2.00	2.00
7.	Part-time Courses	2.10	2.00	2.00	15.00	..	3.00	..
8.	Granting of Autonomy to one Engineering College	..	0.50	..	5.00	..	0.50	..
<i>Politechnics</i>								
1.	Consolidation of Facilities in Polytechnics (existing)	5.97	13.00	5.00	60.00	50.00	10.00	5.00
2.	Newly Started Polytechnics	..	15.00	10.00	50.00	30.00	16.00	5.00
<i>Junior Technical Schools</i>								
1.	Existing Junior Technical Schools	13.11	4.00	3.50	30.00	20.00	4.00	2.00
2.	Newly started Junior Technical Schools	..	10.50	7.00	50.00	30.00	8.00	5.00
3.	Vocationalisation of Education—Post Secondary Stage in Junior Technical Schools	..	2.00	2.00	10.00	..	2.00	..



(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Other Institutions</i>							
1. Pre-vocational Training Centres	1.69	3.00	2.00	15.00	3.00	5.00	1.00
2. Centre for Diploma in Commercial Practice	1.48	3.00	2.75	15.00	2.00	3.00	0.50
3. Tailoring and Garment Making Centres	1.76	2.40	1.90	13.00	..	3.00	..
4. Tailoring and Garment Making Training Centres for Scheduled Castes/Scheduled Tribes (Special Component Plan)	..	0.10	0.10	2.00	..	1.00	..
5. College of Fine Arts	3.36	3.50	3.00	30.00	15.00	6.00	2.00
6. Food Crafts Institute Kalamassery	2.89	7.50	7.50	25.00	..	5.00	..
<i>Assistance to Non-Government Engineering College and Institution</i>							
1. Private Engineering Colleges	2.82	5.00	5.00	25.00	20.00	10.00	10.00
2. Private Polytechnics	0.20	3.00	3.00	15.00	10.00	5.00	5.00
3. Assistance to Regional Engineering College, Calicut	3.00	1.00	1.00	10.00	10.00	2.00	2.00
<i>Research and Training</i>							
1. Centres of excellence	..	..	..	10.00	..	2.00	..
2. Apprenticeship Training	1.17	2.00	2.00	20.00	15.00	4.00	3.00
3. Management Education	0.13	0.30	0.30	2.00	..	0.20	..
<i>Other Programme</i>							
1. Faculty Development	8.82	9.00	9.00	50.00	..	12.00	..
2. Modernisation of Laboratories	1.46	1.00	1.00	10.00	10.00	2.00	2.00
3. Central Instrumental Workshop	..	5.00	4.50	15.00	5.00	3.00	1.00
4. Industrial Residencies	0.09	0.50	0.50	5.00	..	1.00	..
5. Revision of Staff Structure	..	1.00	3.00	20.00	..	5.00	..
6. Extension Centre T.T.T.I.	..	2.00	..	10.00	10.00	2.00	2.00
7. Diversification of Courses	8.40	6.00	6.00	40.00	..	8.00	..
8. Student Amenities	1.68	1.50	1.50	15.00	5.00	3.00	0.50
9. Establishment of Work Centres	..	0.10	0.10	2.00	..	0.10	..
10. Library Development	4.00	2.00	2.00	10.00	5.00	2.00	2.00
11. Science and Technological Museum	..	1.00	1.00	30.00	15.00	5.00	2.00
12. Curriculam Development Centre	0.25	0.50	0.50	2.00	..	0.50	..
13. Industrial Liaison	0.17	0.50	0.50	5.00	..	0.50	..
14. Teaching Aids	0.14	0.30	0.30	5.00	..	1.00	..
15. Free Supply of Text Books to S.C./S.T. Special Component Plan	0.11	0.10	0.10	20.00	..	5.00	..
16. Book-Banks	1.34	1.00	1.00	5.00	..	1.00	..
17. Matching grant for Central Schemes	0.90	5.00	5.00	20.00	..	5.00	..
18. Remedical Courses to Reduce Wastage	..	0.50	0.50	2.00	..	0.50	..
19. Construction of Staff Quarters	..	5.00	..	25.00	25.00	7.00	5.00
20. Special Coaching for All India Competitive Examination for Eligible Students	..	0.10	0.10	1.00	..	0.10	..
21. Rural Development Centres	..	0.10	0.10	1.00	..	0.10	..
22. Technological University	..	..	..	5.00	..	1.00	..
Total-Technical Education	108.98*	190.00*	156.25*	1000.00	410.00	196.00	70.50

\* Includes outlay for the schemes Centre for continuing Education and Improvement of Physical Facilities in Polytechnics and Regional Engineering Colleges.

### Scientific Services and Research

The national objective of providing the basic minimum needs of the common man emphasises the need for proper planning in the area of Science and Technology. This calls for the formulation and implementation of a science and technology policy which should aim at reduction of import of technology, maximisation of returns from existing investments and full development of the national endowments of each region safeguarding quality of environment. The State Government have already constituted a State Committee on Science and Technology representing various disciplines and institutions of importance in the region. Several institutions have been set up concerning the various areas of Science and Technology. A brief description of the development activities envisaged in the Plan is given below:

#### 1. Lal Bahadur Sastri Engineering Research and Consultancy Centre

This Centre has been established in 1976 mainly to act as a link between technical institutions, universities, and other professional bodies in the State and also to provide consultancy service in Design, Development and Experimentation with respect to industrial problems and projects through the facilities available in institutions. It serves as a storehouse for up-to-date information and as a clearing house for research projects and consultancy service. The Plan provision made is meant for payment of grant to the Centre for providing additional facilities and for the improvement of existing facilities.

#### 2. Sree Chithra Thirunal Medical Centre

This Centre, established in 1973 as an autonomous institution, provides for specialised service in cardiology and neurology. The Government of India have already decided to take over the institution as an

institution of national importance. An official Bill in this regard has been introduced in the Lok Sabha during the last session and is expected to be enacted in the next session. The provision is intended for meeting the State's commitment already made till the take over by the Government of India is completed and further commitment if any thereafter.

### 3. *Electronic Research and Development Centre*

The Electronic Research and Development Centre started in 1974 as an autonomous institution is engaged in developing systems and equipments in electronics. At present a number of projects are in progress in the following areas:

- (i) digital equipments and systems
- (ii) industrial electronics
- (iii) T.V. receivers and systems
- (iv) communications equipment and systems
- (v) entertainment equipments
- (iv) special products for defence project.

During the Plan period, it is proposed to expand the present Research and Development activity by taking up a number of new projects and by diversifying into some of the related areas such as control instrumentation, mini computers and other data processing systems. The State Government proposes to finance the institutions to the extent possible by way of grant-in-aid.

### 4. *Kerala Forest Research Institute*

The Kerala Forest Research Institute was established in 1975 as an autonomous institution. The main object of the Institute is to undertake advanced studies and research on conservation, development and management of forests, optimum utilisation of forest products and management of wild-life. During the Sixth plan period the Institute proposes to have a sub centre at Thekkady. Completion of the construction of staff quarters, expansion of library, completion of auditorium and augmentation of water supply system are also proposed during the plan period. The provision is intended to finance the institution by way of grant-in-aid.

### 5. *Centre for Water Resources Development and Management*

The Centre for Water Resources Development and Management was established in 1978 with the objective of undertaking inter-disciplinary investigation on the different aspects of assessment, conservation, development and management of water resources of Kerala. During the Sixth Plan period the Centre proposes to establish its main and regional stations, undertake short-term studies on some urgent and pressing problems of water management, initiate long term studies of inter disciplinary nature, take steps to extend proper water utilisation and management practices to the multifarious users, construct main office buildings, workshops, roads quarters etc. Land development lay-out and procurement of equipments for the technical divisions are also proposed during the plan period. The plan provision is for payment of grant-in-aid to the Centre.

### 6. *Centre for Development Studies*

The Centre for Development Studies is an autonomous institution engaged in studies and research relating to development problems particularly to those concerning India. The Centre, an institution of excellence, deserves continued assistance from Government. The provision is for the maintenance and expansion of activities of the Centre.

### 7. *State Committee on Science and Technology*

The State Committee on Science and Technology has been functioning from 1972 onwards co-ordinating science and technology programmes in the State. The operation of the Scientific Research Fund will be continued. It is also proposed to continue the schemes for the award of Kerala State Science and Technology prize and post-doctoral fellowships. The provision proposed is for the above purpose and also to meet the establishment cost.

### 8. *Establishment of C.S.I.R. Complex*

The C.S.I.R. had taken over the Industrial Testing and Research Laboratory in Trivandrum to establish a C.S.I.R. complex here. The State Government have already agreed for the payment of State's contribution for the C.S.I.R. complexes in the State which includes the Polytechnology Transfer Centre. The provision is for the acquisition of land for the C.S.I.R. Complex to be adjusted against Government's share of contribution and also for payment of State's share of contribution.

### 9. *State Committee on Environmental Planning and Co-ordination*

The State Committee on Environmental Planning and Co-ordination has been constituted with a view to integrating the activities of institutions engaged in environmental studies in the process of planning and implementation of development programmes. The provision is for meeting the expenses in connection with the functioning of the Committee.

### 10. *Centre for Earth Science Studies*

The Centre for Earth Science Studies has been established by Government in 1978 as an autonomous Centre for studying the various aspects of earth science. During the Sixth Plan period, the Centre proposes to undertake detailed studies to beneficiate and upgrade lowgrade iron ores, bauxites, China clay, glass sand, black sand, graphite and lime stone found in Kerala. An integrated geological geochemical and geophysical survey of the Shear zones of Kerala is also proposed. Detailed studies relating to radiation energy, budget and weather rocket experiments, ozone studies, atmospheric electricity, air-sea interaction, ground based studies for the understanding of the sun-weather relationships, detailed studies relating to coastal zone management, continental shelf, study of river systems etc., will also be taken up. The chemical laboratory will be equipped and maintained to look after the analytical requirements of the various divisions of the Centre. The Centre also proposes to have its own land and buildings to accommodate its various divisions. The provisions proposed is for payment of grant-in-aid to the institution.

### 11. National Transportation Planning and Research Centre

There is a proposal to set up a National Transportation Planning and Research Centre by converting the National Traffic Planning and Automation Centre (NATPAC) as an autonomous centre for studying problems relating to transportation and traffic movements in the State. The Plan provision earmarked is for advance action in connection with the establishment of the Centre

### 12. Environmental and Ecological Studies

The State is facing problems of pollution and erosion to the natural scenic attractions of Kerala. It is therefore considered necessary to establish a Centre for undertaking environmental and ecological studies on all major projects. The provision is for advance action in connection with the establishment of the Centre.

### 13. Tropical Botanic Garden and Research Institute

In 1979 the State Government established a Tropical Botanic Garden and Research Institute as an auto-

nomous society for carrying out botanical, horticultural and chemical research for plant improvement and for introducing and cultivating plants from other countries for the benefit of the State as well as the country. The provision proposed in the Plan is for payment of grant-in-aid for acquisition of land and its development, construction of roads and buildings, establishment of Arboretum, plant introduction scheme, establishment of garden and laboratories, construction of green houses, glass houses and quarantine houses, establishment of water facilities and development of library and documentation section.

### 14. Indian Institute for Regional Development Studies

This institute is a society registered in 1976 under Travancore-Cochin Literacy Scientific and Charitable Society Registration Act 1955. Government have sanctioned a recurring grant of Rs. 1 lakh and a capital grant in-aid of Rs. 1 lakh to the Institute. Depending on the volume of the work the Institute is able to generate and the State Government's own assessment as to the value of such work being turned out by the Institute, it is proposed to render financial assistance to it in Sixth Plan period.

TABLE 5.43

#### Scientific Services and Research - Scheme-wise Outlay

Sl. No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	Jal Bahadur Sastri Engineering Research and Consultancy Centre	2.50	1.00	1.00	50.00	25.00	10.00	3.00
2.	Sri Chitra Thirunal Medical Centre	120.00	10.00	10.00	30.00	..	10.00	..
3.	Electronic Research and Development Centre	90.46	35.00	35.00	150.00	50.00	35.00	10.00
4.	Kerala Forest Research Institute	53.61	35.00	35.00	150.00	150.00	60.00	25.00
5.	Centre for Research in Water Management	47.70	100.00	100.00	300.00	200.00	100.00	60.00
6.	Centre for Development Studies	20.12	8.00	8.00	100.00	40.00	20.00	5.00
7.	State Committee on Science and Technology	8.00	6.00	6.00	30.00	..	30.00	..
8.	Establishment of C.S.I.R. Complex	1.50	19.00	19.00	80.00	..	20.00	..
9.	State Committee on Environmental Planning and Co-ordination	..	1.00	1.00	5.00	..	1.00	..
10.	Centre for Earth Science Studies	48.88	70.00	70.00	240.00	130.00	70.00	30.00
11.	National Transportation Planning and Research Centre (Advance action)	..	1.00	1.00	5.00	..	1.00	..
12.	Environmental and Ecological Studies (Advance action)	..	1.00	1.00	5.00	..	5.00	..
13.	Tropical Botanical Garden and Research Institute	2.00	10.00	10.00	300.00	200.00	50.00	30.00
14.	Indian Institute for Regional Development Studies (Grant-in-Aid)	1.00	1.00	1.00	20.00	15.00	8.00	7.00
Total-Scientific Services and Research		396.77*	300.00*	300.00*	1565.00	810.00	420.00	170.00

\* Includes outlay for schemes—Science Centre and New Research and Development Centre (Grant-in-aid)

## Health

Health services in Kerala are of high standard in comparison to many other States in India. The health care system in the State however is still under-developed. The classification of medical institutions is neither service oriented nor based on the concept of integrated medical and health care. The number and distribution of institutions are not need-based which led to the concentration of medical institutions in the urban areas resulting in the widening of regional disparities. One could see wide

disparity in the number of institutions from district to district and even from panchayat to panchayat. The High Power Committee on Health Services headed by Dr.K.N. Pai has summarised the drawbacks of the existing set-up to over-crowding in hospitals, lack of cleanliness, inefficient emergency services, unserviceable state of many costly items of equipments, inefficient clinical facilities and gross inadequacy of drugs and hospital supplies. There is demand for more institutions, in-patient facilities and better quality medical and paramedical personnel.

Though Kerala has achieved the norm of bed-population ratio viz. one bed per thousand population in 1969-70 itself, inspite of the high density of population in the State, the bed population ratio is less than the desired norm in the districts of Idukki, Malappuram, Palghat, Quilon and Cannanore. The network of medical institutions of the three flourishing systems of medicine in the State viz. Allopathy, Ayurveda and Homoeopathy, provides every panchayat with atleast a government medical institution. In addition to this, there is a large number of well-run private institutions also. The Pai Committee recommends the increase of both the number and beds of institutions so as to make available to the people health and medical care at their easy reach. Management and supervision will have to be strengthened in order to rectify the defects in the proper utilisation of the existing infrastructure.

A short description of the schemes proposed to be taken up in the plan period 1980-85 is given below:

#### *Minimum Needs Programme*

##### *1. Primary Health Centres—Strengthening of Primary Health Centres and Sub-Centres and Starting New Ones*

The scheme is intended for the improvement of medical and health facilities of the rural people. The present norms of one P.H. Centre for every lakh of population and one sub-centre for every 10,000 population are to be revised to one P.H. Centre for every 80,000 population and one sub-centre for every 5000 population. The outlay earmarked will be utilised for the implementation of the above schemes. A sum of Rs. 40 lakhs is set apart as the special component Plan for scheduled castes and scheduled tribes.

##### *2. Rural Dispensaries in Backward Areas*

The Plan provision made is for starting Government rural dispensaries in all the panchayats where there is no dispensary at present and improvement of facilities in the existing rural dispensaries and hospitals. The share of the special component plan for the scheme is Rs. 60 lakhs.

##### *3. Drugs for Existing Sub-Centres*

The provision is for the supply of drugs to the existing and new sub centres and other institutions. An amount of Rs. 15 lakhs is the outlay for special component plan for scheduled castes.

##### *4. Mobile Medical Unit for Tribal Block, Attappady*

The provision made is for the construction of buildings and for appointment of staff in the P.H. Centres in the Tribal Block at Attappady

##### *5. Community Health Worker Scheme*

This scheme introduced by the Government of India envisages the training of members of the local community, in health and health delivery so as to impart the basic knowledge about health care to the local people. The training will relate to subjects like prevailing health problems, promotion of nutrition, basic sanitation, maternal and child health care, family planning, immunisation etc. In view of the well-developed

health delivery system of the State, the government of India accorded approval for a modified form of community worker scheme to be introduced in the State which contemplates a better scientific approach to meet the basic health needs of the rural population of Kerala. This includes special services for children by appointing paediatricians in P.H. Centres, laboratory services for the rural population and provision of more medicines to the rural patients. The outlay proposed in the Plan is for the implementation of this revised scheme.

## *II. Hospitals and Dispensaries*

### *(i) Improvement of Health Care and Delivery System*

This scheme which contains some of the important recommendations of the Pai Committee Report is the major scheme under hospitals and dispensaries. The scheme includes the following minor schemes which are intended for raising the efficiency of the institutions viz. raising bed strength in district hospitals, introducing all essential specialities in district hospitals, better equipment to major hospitals including sterilizer, raising bed strength, in taluk headquarters hospitals, providing specialities, opening new units and strengthening of medical record section in taluk hospitals, improvement of health care system and continuing specialities in major hospitals.

### *2. Construction of District Hospital Buildings at Idukki and Malappuram*

The amount provided in the Plan will be utilised for construction of buildings for district hospitals, Malappuram and Idukki.

### *3. Polyclinics in District and General Hospitals*

Only three district hospitals at Cannanore, Palghat and Trichur have at present the facilities of Polyclinics. The remaining eight district hospitals will be provided with polyclinics for which financial provision is made in the Plan.

### *4. Janatha Payward and Payward Scheme*

Janatha paywards are proposed to be started in district and taluk hospitals. The Kerala Health Research and Welfare Society will be entrusted with this work. The provision made is the State Government share in the capital expenditure for the construction of paywards.

### *5. Opening New Taluk Hospitals at Devikulam, Peermade, Udumbanchola etc.*

The Plan provision is for improving taluk headquarters hospitals at Peermade, Devikulam and Udumbanchola.

### *6. Construction of Building and Provision of Vehicle to District Medical Stores.*

The provision is for completing the spillover works relating to this scheme.

### *7. Improving Medical Facilities in Idukki District*

The outlay earmarked will be utilised for improving the medical facilities in Idukki District by constructing additional buildings, by providing additional staff and vehicles suitable to the difficult terrains.

8. *Providing Ambulance Vans in District and Taluk Hospitals*

The outlay allocated is for the purchase of ambulance vans in district and taluk head quarters hospitals.

9. *Mobile Dispensary, Kuttanad*

The provision is for the continuance of the (floating) dispensary sanctioned for Kuttanad area, for the purchase of medicine, for appointment of necessary staff etc.

10. *Health Transport including Mobile unit for Repairs and Maintenance of Hospital Equipments*

The outlay proposed is for starting, few more additional mobile workshops in order to carry out the maintenance work more efficiently. It is also proposed to start one more mobile health equipment repair unit.

11. *Institute for Mental Health and Neuro Science*

The present mental health care in the State is mainly confined to the three mental hospitals at Trivandrum, Trichur and Calicut. Only meagre facilities are available at the district hospitals. Nearly one percent of the population suffer from mental illness, severe enough to pay urgent attention and another 4 to 6 percent suffer from mental disorder. An Institute of Mental Health and Neuro Science may be established by amalgamating the mental hospital at Calicut or Trivandrum. The Institute will serve as a co-ordinating centre. The scheme is yet to be taken up. The R & D for the proposed Institute for Research, Education Training and Rehabilitation of the Mentally Retarded will also be undertaken by this Institute.

12. *Revision of Staff Pattern (Nurses)*

The provision made in the plan is for appointment of staff nurses in order to raise the nurse-bed ratio and also for the continuance of the staff already sanctioned.

13. *Cancer Detection Centre in District Hospitals*

The amount provided in the Plan will be utilised for starting cancer detection centres at district Hospitals as a part of cancer control programmes.

14. *Opening of District Office and Office of the District Medical Officer (Health), Wynad*

The provision proposed is for meeting expenditure on opening of office of the District Medical Officer of Health, district medical store etc., for the proposed Wynad district.

*Medical Education and Research*

1. *Medical College, Trivandrum*

The Medical College, Trivandrum, which is nearing 30 years of existence, has a well consolidated undergraduate programme. The State is facing shortage in post graduates in clinical subjects necessitating the increase of seats for Post Graduate Course. There

is also need for increasing paramedical seats also. Separate programmes have to be carried out for the development of new specialities like oncology, chest diseases, neurology, gastroenterology etc. The Plan provision includes the cost of the implementation of schemes under gastroenterology and centre for respiratory allergy and antigen manufacture.

2. *Establishment of Regional Cancer Institute, Trivandrum—State share*

The Cancer Institute at Trivandrum is proposed to be raised to the status of a Regional Cancer Centre of national reputation. The Institute is proposed as a scheme having 100 percent central assistance. The amount provided in the plan is a token provision to meet the initial expenses.

3. *Dental College*

The present facilities in the Dental College, Trivandrum, are grossly inadequate to meet the academic/service activities of the college. The additional construction required by the college can be done on a phased programme. The amount earmarked for the development of the college is proposed to be utilised for the purchase of equipments/instruments, furniture, books, for starting Maxillo facial surgery etc. The high incidence of oral cancer necessitates the starting of a Maxillo facial surgery unit in the college. Further, the staff pattern of the College was fixed in 1965. This has to be revised in the light of the increased academic and service load. It is also proposed to provide refresher course in dentistry. The Dental Council of India insisted that community dentistry should be taught in dental colleges. The scheme would involve the procurement of mobile van and organisation of dental clinics in rural centres in order to expose the students to the dental problems of the community. The outlay includes provision for this scheme also.

4. *College of Pharmaceutical Science, Trivandrum*

A separate building for the pharmaceutical college was constructed in the Medical College, Trivandrum in 1975. There is not sufficient accommodation in the college due to the non-completion of the second floor as was originally planned. The outlay earmarked will be utilised for the construction of the 2nd floor and starting of M. Pharmacy course.

5. *Regional Limb Fitting Centre Medical College, Trivandrum*

The amount provided is the matching grant which has to be paid by the State Government to the Regional Limb Fitting Centre according to the contract entered into between the State and ALIMCO, Poona.

6. *Reorientation of Medical Education and Upgradation of the department of Ophthalmology—State share*

This is a centrally sponsored scheme with 50 percent central assistance. The amount provided is for the implementation of the scheme in the three medical colleges of Trivandrum, Kottayam and Calicut.

### 7. *Medical College, Calicut*

Medical College, Calicut, started in 1957 has grown into a large complex with the intake capacity of 180 students at the undergraduate level, and with post graduate courses in different branches of medicine. Admission to the M.B.B.S course has been enhanced to 200 from 1980-81. It has been proposed to increase the number of seats in various Post Graduate courses also. New specialities have to be started to keep pace with the rapidly expanding frontiers of medical science. The outlay earmarked is for the above purposes.

### 8. *Medical College, Kottayam*

The Medical College, Kottayam is still functioning in an old building and accommodation for the staff is also inadequate. A separate block for obstetrics and gynaecology department near to the Institute of Child Health in the Medical College Campus is also necessary. The Construction of the College building will be completed during the plan period itself.

### 9. *Medical College, Alleppey*

The T.D. Medical College, Alleppey, was a private college, the administration of which was taken over by the Government during 1967 for a period of 5 years. Finally the college was vested with the Government from 1973. It is essential to complete the work of the hospital building during the Sixth Plan period. Development of pre and para clinical department, development of specialities, provision of equipments, construction of college and hospital buildings, construction of school of nursing, pharmacy building etc., are some of the schemes proposed to be implemented during the plan period.

### 10. *Providing Generators in Medical College Hospitals*

The Sixth Plan provision is for installing generators in all the medical college hospitals in the State.

### 11. *Training of Teachers in Specialities and Continuing Medical Education*

The Plan outlay is for continuing the training programme for specialists and teaching staff in the medical colleges.

### 12. *Nursing Education—Paramedical Training Programme and Training of Health Visitors in P.H. Nursing*

The provision made in the Plan is for the continuance of the training programme for nurses. The training of general nurses is continued in district hospitals. The annual intake of trainees has increased from 245 to 270.

For the various schemes under medical education and research a total amount of Rs. 1648 lakhs is earmarked in the Sixth Plan.

## *Public Health and Sanitation*

### *Control of Communicable Diseases*

#### 1. *Tuberculosis*

Of the total outlay of Rs. 45 lakhs, an amount of Rs. 5 lakhs is for the operational cost of the scheme and

Rs. 40 lakhs is the State's share for carrying out this centrally sponsored scheme.

#### 2. *Leprosy Control (State Share)*

The Plan provision represents the State's share of the Centrally sponsored scheme for leprosy control.

#### 3. *Filaria—Filaria Control (State Share)*

The outlay set apart is for the continuance of the existing two Filaria control units and four clinics. It is proposed to start new units and clinics during the Sixth Plan period.

#### 4. *National Malaria Eradication Programme*

Of the total outlay of Rs. 100 lakhs, an amount of Rs. 35 lakhs is the additional cost for the continuance of the Malaria Eradication Programme. The expenditure for the creation of posts of District Malaria Officers, laboratory technicians and Basic Health Workers and the extra cost on focal spray operations will have to be met from this amount. The balance amount of Rs. 65 lakhs is the State's share of this centrally sponsored Scheme.

#### 5. *Mass Immunisation Programme*

The amount earmarked in the Plan is for the continuance of the programme of preventive inoculation against tuberculosis, small pox, diphtheria, tetanus and whooping cough among children in the age group zero to five.

#### 6. *Prevention of Blindness including Prevention of Visual Impairment and Control of Blindness—mobile units—(State Share)*

The Plan provision, represents the State's share for the implementation of this programme.

#### 7. *Cholera*

The outlay made in the Plan is the State's share of the centrally sponsored scheme for control of cholera.

#### 8. *Control of Sexually Transmitted Diseases (State Share)*

The State Plan provision represents the State's share for this scheme.

#### 9. *Training and Employment of Multi-Purpose Workers (State Share)*

The multipurpose worker scheme is a centrally sponsored scheme with 50 per cent central assistance. The Scheme is being implemented in two districts with effect from 1-4-1978. It is continued in the P.H. Centre level in districts and at the training centres. The number of persons trained is comparatively less in the districts of Alleppey, Kottayam, Idukki, Ernakulam and Trichur. The training programme has to be strengthened in these districts. The outlay proposed in the Plan is the State's share for the implementation of the scheme.

*Other Systems of Medicines**Indian Systems of Medicine**Ayurveda--Minimum Needs Programme*1. *Opening of New Dispensaries*

The aim of this scheme is provision of an Ayurveda dispensary in the Panchayats in which there is no Government Ayurveda institution at present. An amount of Rs. 70 lakhs has been provided in the Sixth Plan for starting new Ayurveda Dispensaries. Out of the total provision an amount of Rs. 20 lakhs is earmarked for the benefit of the people belonging to scheduled castes/Scheduled tribes.

2. *Upgrading Dispensaries into Hospitals*

Many dispensaries, started more than two decades ago, still remain without adding to their facilities though the number of beneficiaries around the locality has increased considerably. It is intended to upgrade the dispensaries into hospitals where there is urgent need. An outlay of Rs. 15 lakhs is envisaged for this Scheme in the Sixth Plan.

3. *Opening of New Ayurveda Hospitals in Rural Areas*

The ayurveda hospitals functioning in rural areas are very few in number. Under this scheme it is proposed to provide more number of hospitals in rural areas. An amount of Rs. 33 lakhs is set apart in the plan for the scheme. Out of the total provision an amount of Rs. 10 lakhs is allotted for the benefit of people belonging to scheduled castes and scheduled tribes.

4. *Construction of Building to Ayurveda Hospitals and Dispensaries and Increasing Bed Strength*

A large number of Ayurveda institutions are run in inconvenient rented buildings. The number of beds in these institutions is also limited. Hence more buildings are to be constructed during the Sixth Plan period. Simultaneously number of beds is to be increased in the existing hospitals. An amount of Rs. 20 lakhs is provided for the implementation of this scheme in the Plan.

5. *Construction of Nurses' Quarters to Hospitals in Rural Areas*

Accommodation facilities are quite poor in rural areas where most of the departmental hospitals are situated. The outlay provided (Rs. 15 lakhs) will be used for the construction of Nurses' quarters near the hospitals.

6. *Starting of Mobile Dispensaries*

Mobile dispensaries are more useful in remote rural areas where travelling facilities for the public are poor. At present there is only one mobile dispensary under the Department of Indigenous Medicine. So more mobile units are to be started during the plan period. An amount of Rs. 5 lakhs is earmarked in the Plan for this scheme.

*Hospitals and Dispensaries*1. *Opening of New Hospitals other than in Rural Areas*

There are no Ayurveda hospitals in certain taluks and urban areas. The aim of the scheme is to start new hospitals in such areas. The amount provided in the plan for this scheme is Rs. 7.50 lakhs.

2. *Construction of Buildings to Ayurveda Hospitals*

Many of the Ayurveda hospitals in the state are accommodated in inconvenient rented buildings. Hence more buildings are to be constructed to suit the requirements of the hospitals during the plan period. An amount of Rs. 10 lakhs is allotted for this purpose.

3. *Starting of 'Marma' Section in Taluk Hospitals and Development of Panchakarma*

Facilities for 'Marma' and 'Panchakarma' treatments are not available in most of the Ayurveda hospitals. An outlay of Rs. 2 lakhs is allotted in the plan to provide necessary facilities in hospitals so that they can undertake 'Marma' and 'Panchakarma' treatments.

4. *Improvement of Mental Hospital at Kottakkal*

The outlay provided in the plan under this scheme is for the improvement of the existing facilities in the Mental Hospital at Kottakkal.

5. *Nature Cure Centre, Varkala*

Nature cure is found to be very effective for certain type of diseases. The aim of the scheme is to start a nature cure centre at Varkala and to provide necessary buildings for its effective functioning. The amount allotted for the scheme is Rs. 10 lakhs.

6. *Establishment of Sidha Vaidya Hospitals and Dispensaries*

An amount of Rs. 1 lakh is allotted in the Plan for opening more sidha dispensaries in the State.

7. *Starting Specialities in Hospitals and Strengthening of Staff*

This scheme is formulated with a view to starting certain specialities in hospitals. Facilities for rendering special treatment for Visha, Marma, Netra, etc., are to be provided in certain hospitals taking into consideration the conditions existing in the locality. The staff position in these hospitals will also be improved. The amount allotted for implementing the scheme is Rs. 10 lakhs.

8. *Strengthening of Staff in the Directorate of Indian Systems of Medicine*

For the efficient working of the Directorate additional staff is necessary. The outlay provided for the strengthening of staff in the Directorate is Rs. 5 lakhs.

(b) *Strengthening of Administrative Wing in the District Offices*

The District Offices of the Directorate have to function with wider powers particularly at the time of

introduction of District Administration programmes. For this additional staff is required in the District Offices. This scheme envisaged in the Plan is to strengthen the administrative wing at the district level. An amount of Rs 5 lakhs is allotted for the scheme.

9. *Purchase of Vehicles for the Directorate and District Offices*

An outlay of Rs. 8 lakhs is earmarked in the Sixth Plan for the purchase of vehicles for the Directorate and District Offices.

10. *Improvement of Central Store and Establishment of District Stores*

It is proposed to open stores in various districts and make further improvements to the Central Store attached to the Directorate. The outlay provided in the plan for the implementation of the scheme is Rs. 10 lakhs.

11. *Raising the status of Hospitals into District Hospitals*

At present, only five districts, viz. Quilon, Ernakulam, Trichur, Palghat and Cannanore, have hospitals of the status of a district hospital. It is proposed to raise the status of the hospitals at the District headquarters to that of District hospitals by increasing their bed strength and by providing facilities for different special treatments. The amount allotted for the scheme in the plan is Rs. 10 lakhs.

12. *Construction of Building for District Offices*

It is proposed to construct buildings to house the District Offices in those district headquarters where Government land is available. The outlay provided for the period 1980-85 (Rs. 2 lakhs) is meant for the completion of works that have already been started.

13. *Raising the Bed Strength in the District Ayurveda Hospitals*

The bed strength of the district hospitals is only 50 which is found to be inadequate. Also no separate allocation of beds is made for those patients undergoing treatments of special cases like Visha, Netra, Marma etc. Therefore it is proposed to increase the bed strength in district hospitals from 50 to 200. The outlay provided for this scheme in the Plan is Rs. 10 lakhs.

14. *Staff Quarters for 100 Dispensaries*

Most of the dispensaries are located in remote rural areas of the State. In such places it is very difficult to get accommodation facilities for the staff. An allocation of Rs. 10 lakhs is made in the Plan for constructing staff quarters for dispensaries in such areas.

*Education (Ayurveda)*

1. *Ayurveda College, Trivandrum*

This scheme aims at the general development of Ayurveda College at Trivandrum. The B.A.M.S. degree course has been started from the year 1979-80. The staff pattern and facilities prescribed by the Central Council will have to be made available here also. The

scheme is intended to meet the salary of staff and purchase of equipments. An amount of Rs. 10 lakhs is earmarked for the scheme in the Plan.

2. *Ayurveda College, Trippunithura*

The main aim of this scheme is strengthening of the major departments in the Ayurveda College at Trippunithura. The outlay provided in the plan for the scheme is Rs. 8 lakhs.

3. *Grant-in-aid to Private Ayurveda College, at Shoranur, Kottakkal and Ollur*

An outlay of Rs. 4.50 lakhs is allotted in the Plan for providing grants to private Ayurveda Colleges at Shoranur, Kottakkal and Ollur to improve the facilities in these colleges.

4. *Regional Research Institute, Poojappura (including Model Demonstration Garden of Herbs and Botanical Gardens) National Institute of Ayurveda*

The programme is to construct buildings for the Post-graduate Centre, RRI Poojappura, Publication Division and Drugs Standardisation Unit at the proposed site in the Ayurveda Research Institute compound at Poojappura. The construction of buildings for accommodating Post-graduate Centre in Ayurveda including college building, hospital wards, hostels etc., has to be taken up in a phased programme. The total outlay earmarked for the scheme in the Sixth Plan is Rs. 44 lakhs.

5. *Training in Prakrithi Chikilsa*

The nature cure system of treatment has proved an effective system in curing a good number of diseases. At present there is no training centre in the Public sector for this system of treatment in Kerala. The amount allotted in the plan (Rs. 2 lakhs) will be used for starting a Prakrithi Chikilsa Centre at Trivandrum.

6. *Construction of Men's and Ladies' Hostels, Staff Quarters, Pharmacy Building etc. for Ayurveda College, Trivandrum.*

The construction of staff quarters and one hostel to students is yet to be completed. Additional buildings for the expansion of various units in the Ayurveda College at Trivandrum are also necessary. For this purpose, a total outlay of Rs. 30 lakhs is provided in the Plan.

7. *Collection and Preservation of Manuscripts*

There are numerous palmleaf and hand-written manuscripts in the custody of traditional physicians in the rural parts of Kerala and also with the erstwhile royal families. Strenuous efforts are to be made to identify these custodians and get the manuscripts, copied and translated. A survey, personal perusal, collection of data, preparation of the catalogue etc. are the items of work to be done in this field. A sum of Rs. 5 lakhs is set apart for this purpose in the Plan.

8. *Preparation of Text Books*

Suitable text books are not available for ayurveda students studying at graduate and post-graduate



levels. Hence priority should be given for the publication of text books for these students. Amount allotted for the scheme in the Sixth Plan is Rs. 5 lakhs.

#### 9. *Expansion of Collegiate Libraries*

Publications dealing with medical science should be procured and kept for reference for the students and staff of ayurveda colleges. An outlay of Rs. 3 lakhs is provided for the expansion of collegiate libraries during the plan period.

#### 10. *Specialisation in various Branches of Ayurveda*

Facilities will have to be provided for the graduates in Ayurveda to specialise in subjects according to their talent. This will help improve the system of education and treatment. The amount allotted for this purpose in the plan is Rs. 2 lakhs.

#### 11. *Condensed Degree Course for Diploma Holders*

The aim of the condensed degree course is to conduct degree courses for the benefit of Ayurveda diploma holders. A sum of Rs. 2.50 lakhs is earmarked for this programme in the Plan.

#### 12. *Strengthening of Publication Division—Ayurveda College, Trivandrum*

Ayurveda text books and reference books are very rare. Hence sufficient copies of text books and reference books will have to be printed and published immediately. There are books which require reprinting also. Hence an amount of Rs. 10 lakhs is earmarked in the Plan to strengthen the publication division of the Ayurveda College at Trivandrum.

#### 13. *Refresher Course for Paramedical Staff, Teachers and Medical Officers*

Teachers, medical officers and private practitioners practising Ayurveda do not get any chance to learn advanced theory and treatment due to various reasons. Periodical refresher courses will be very helpful for them. The outlay of Rs. 2.50 lakhs allotted in this Plan will be utilised for conducting refresher courses.

#### 14. *Expansion of Collegiate Hospital at Trivandrum*

The Collegiate Hospital at Trivandrum is now having only a bed strength of 210 while the Maternity Hospital is having a bed strength of 64. But considering the strength of students more beds are required for their clinical training. A provision of Rs. 20 lakhs is allotted in the Plan for the expansion of Collegiate Hospital at Trivandrum.

#### 15. *Construction of buildings for Pharmacy, Hostel, Hospital, College and Staff Quarters for the Ayurveda College, Trippunithura*

The staff and students of the Ayurveda College, Thrippunithura are experiencing difficulties due to the lack of residential facilities. The present bed strength in the hospital is insufficient for imparting clinical training to students. Construction of blocks for two departments, "Swasthavrittha" and "Sanskrit Samhita and Sidhantha" is also necessary. There are no facilities

for out patient section in the present collegiate hospital. As the construction of the above buildings are creation of additional facilities an essential provision of Rs. 30 lakhs is earmarked in the Plan.

#### 16. *Payward Facilities for Ayurveda College Hospitals*

At present there are no paywards attached to the Ayurveda College Hospital at Trivandrum. A provision of Rs. 20 lakhs is earmarked in the Plan for constructing paywards.

#### 17. *Degree Course in Pharmacy*

It is proposed to start a degree course in Pharmacy in the Ayurveda College at Trivandrum since there is no pharmacy course in Ayurveda in Kerala. Preliminary facilities to be provided are physics and chemistry laboratories and Museum as required in the syllabus. A sum of Rs. 5 lakhs is set apart for this purpose in the Plan.

#### 18. *Training Programme for Nurses and Pharmacists*

There are no sufficient candidates for appointment as Nurses and Pharmacists. Regular training courses are to be conducted until sufficient number of candidates becomes available. A provision of Rs. 2 lakhs is earmarked in the Plan for conducting training courses.

### *Homeopathy*

#### I. *Minimum Needs Programme*

##### 1. *Rural Dispensaries*

It is proposed to start one dispensary in each Panchayat on a phased programme. The Plan provision will be used for the maintenance of the existing dispensaries as also to open new ones. A sum of Rs. 60 lakhs is allotted for the scheme in the Sixth Plan out of which an amount of Rs. 20 lakhs will be for the benefit of SC/ST.

#### II. *Hospitals and Dispensaries*

##### 1. *District Hospitals and Dispensaries (including opening of Hospitals and Dispensaries in Idukki, Malappuram and Quilon Districts)*

A provision of Rs. 20 lakhs is made in the Plan for the maintenance of the hospital at Idukki, maintenance of the existing dispensaries at Malappuram and Idukki districts and for starting a 25 bedded hospital at Quilon.

##### 2. *Taluk Hospitals*

The purpose of the scheme is to open 25 bedded hospitals in each taluk where the health care facilities are relatively poor. The amount provided for this scheme in the Plan is Rs. 15 lakhs.

##### 3. *District Offices*

An amount of Rs. 1 lakh is earmarked in the Plan for the continuance of the two district offices opened during the year 1979-80.

4. *Strengthening of Administrative Machinery including Building for the Directorate*

The administrative machinery in the Directorate has to be strengthened to cope with the increase in workload. The Directorate is now housed in a rented building. A provision of Rs. 7 lakhs is made for strengthening the administrative machinery and for the construction of building for the Directorate.

5. *Increasing Bed Strength in District and Taluk Hospitals*

At present there are only 260 hospital beds in the State under the homoeopathic system of medicine. The Plan provision is intended for the maintenance of additional beds proposed to be sanctioned this year and to increase the bed strength in more hospitals. The amount allotted for the period 1980-85 under the scheme is Rs. 5.50 lakhs.

6. *Providing Modern Equipments and other Facilities in Hospitals*

Modern devices like laboratory facilities and other diagnostic amenities in 14 hospitals to facilitate quick diagnosis will have to be made available. At least the District Headquarters hospitals should be equipped with these essential facilities. The provision made for this programme in the Plan is Rs. 5 lakhs.

7. *Starting of Drug Units*

There is already a Pharmacy in the co-operative sector for the manufacture of homoeo medicines. But medicines produced by this Pharmacy are not sufficient. It is proposed to start a Drug Unit in Public sector for the manufacture of homoeo medicines mainly for supplying to Departmental hospitals and dispensaries. The amount provided for the scheme in the Plan is Rs. 5 lakhs.

8. *Construction of Buildings for Existing Hospitals and Dispensaries*

At present most of the hospitals and dispensaries are housed in rented buildings. New buildings are to be constructed for these institutions on a phased programme. Construction of buildings may be undertaken for Government Homoeopathic hospitals at Palghat and Neeleshwar and for dispensaries at Ernakulam and Vellora and other places where Government land is available. The amount allotted for the period 1980-85 under this scheme is Rs. 5 lakhs.

9. *Co-operative Society for the Manufacture of Homoeo Medicines*

There is a homoeopathic co-operative pharmacy functioning at Alleppey where homoeo medicines are manufactured. An outlay of Rs. 2.50 lakhs is provided in the Plan for giving financial assistance to this co-operative society.

10. *Mobile Dispensaries*

Mobile dispensaries are found to be useful to provide medical relief at the door step of the villagers and to make it within easy reach of people living in remote areas. A financial outlay of Rs. 5 lakhs is provided to introduce this programme during the Sixth Plan period.

11. *Purchase of Departmental Vehicles*

An outlay of Rs. 7 lakhs is allotted for the purchase of three departmental vehicles during the Plan period.

III. *Education*

1. *Development of Existing Homoeopathic Degree College, Kozhikode and construction of Hospital Buildings*

An overall development of the College and Collegiate Hospital at Kozhikode is highly necessary. The bed strength and staff strength have to be raised. Modern equipments and other facilities such as X-ray, clinical Laboratory, etc. are to be provided for undertaking clinical training to the students of the Homoeo College. The Plan programme involves acquisition of land and provision of necessary equipments and furniture. A provision of Rs. 50 lakhs is allotted in the Plan for meeting all the above items of expenditure.

2. *Refresher Course to Medical Officers*

Refresher courses are necessary to Medical Officers for increasing their knowledge in homoeopathy and for acquiring knowledge about the latest developments in homoeopathy. A sum of Rs. 2 lakhs is provided for this programme in the Plan.

3. *Starting of Degree College and Hospital*

The existing degree college in homoeopathy is located at Calicut. A provision of Rs. 10 lakhs is made in the Plan for starting a new degree college and collegiate hospital in the southern part of Kerala.

*Other Programmes*

1. *Laboratory Services*

(a) *State Public Health Laboratory and Regional Laboratories*

The development of the State Public Health Laboratory is so envisaged that by the end of the Sixth Five Year Plan period it will play the major role in (i) public health programme, (ii) vaccines and sterile solution manufacture, (iii) supply of reagents and equipments for all the laboratories in the State and (iv) training and research so as to ensure sophisticated investigation. An amount of Rs. 80 lakhs is earmarked for this scheme in the Plan.

(b) *Chemical Examiner's Laboratory*

The Chemical Examiner's Laboratory caters to the needs of judiciary in crime detections. More than 15,000 articles involved in various crime heads are to be examined in the laboratory every year. The outlay proposed in the Plan (Rs. 40 lakhs) is for strengthening the central laboratory at Trivandrum and for the establishment of two Regional Chemical Examiner's Laboratories at Calicut and Ernakulam, appointment of additional staff and purchase of modern equipments.

2. *Drugs Control*

The plan provision is for the development of the Drug Testing Laboratory and expansion of the Inspectorate.

### 3. Health Statistics and Research

The outlay made in the Plan is for strengthening the statistical wing in the Directorate of Health Services and peripheral institutions.

### 4. Health Education and Publicity

The provision in the Plan is for strengthening the existing media division introducing the hospital health education scheme, continuing the Integrated Health Package Programme and for organising seminars on sexually transmitted diseases and on sex education.

### 5. Food Administration (Augmentation)

The amount provided in the Plan will be utilised for the efficient enforcement of Food Adulteration Act by posting of additional staff etc.

### 6. Government Analyst's Laboratory

The provision made in the Plan is for the continuance of the Government Analyst's Laboratory, Trivandrum and Regional Analytical Laboratories at Ernakulam and Kozhikode. The amount will also be utilised for the conduct of orientation courses for food inspectors.

### 7. School Health Programme—Health Card for School Children

School Health Programme had been started in 17 Primary Health Centres. A comprehensive physical examination and medical test of the entire school-going children by introducing health card system in all schools has been started in the State. The existing scheme of School Health Programme will be merged with the new scheme. The amount provided (Rs. 400 lakhs) is for the implementation of this new scheme during the Sixth Plan period.

### 8. Tribal Sub Plan

The Plan provision is for the continuance of Maternity and Child Health Centre and Mobile Medical Unit already sanctioned, including vehicles.

### 9. Power Laundries and Generators

It is proposed to provide during the plan period power laundries and generators in major hospitals where they do not exist at present.

### 10. Prevention of Air and Water Pollution

The Kerala State Board for Prevention and Control of Water Pollution constituted in September 1974, is performing important functions such as grant of consent to the industries for discharging their effluents into streams or wells, monitor the quality of water in all water bodies, plan a comprehensive programme for prevention, control and abatement of pollution and preparation of the Board for taking up the task of air pollution. The outlay earmarked (Rs. 88 lakhs) is the financial assistance to the Board for carrying out its functions.

### 11. Pharmaceutical Corporation

Pharmaceutical Corporation (Indian Medicine) Kerala Limited, Trichur, is a fully Government-owned company. Apart from catering to the needs of Government hospitals and dispensaries, it meets the requirements of medicine of the public also. The outlay of Rs. 25 lakhs provided is the share capital contribution to the Corporation.

### 12. E. S. I. Scheme

The Department provides free medical benefit to the employees and their families covered by the E. S. I. Act. The provision made is the State's share viz. 1/8 the plan expenditure for the implementation of the scheme. As there are no E. S. I. hospitals in the Malabar areas, it is proposed to start the following three hospitals during the Sixth Plan period:—

- (i) 100 bedded hospital, Kozhikode
- (ii) 50 bedded hospital, Palghat
- (iii) 50 bedded hospital, Cannanore

TABLE 5.44  
Health (including ESI) Schemewise Outlay

Name of the Scheme/Project*	1979-80 Actuals	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipa- ted Expen- diture	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Minimum Needs Programme</i>							
1. P. H. Centres							
(a) Strengthening of P. H. Centres and Sub Centres and Opening New P. H. Centres	60.50	64.50	64.50	370.00	130.00	65.50	30.00
(b) Special Component Plan for SCs	..	..	..	60.00	20.00	5.00	2.50
2.							
(a) Rural Dispensaries, Government Dispensaries in Backward Areas	23.00	25.00	25.00	90.00	25.00	20.00	5.00
(b) Special Component Plan for SCs	..	..	..	60.00	15.00	10.00	2.50
3.							
(a) Drugs for Existing Sub-centres and Institutions	20.00	20.00	20.00	85.00	..	17.00	..
(b) Special Component Plan for SCs.	..	..	..	15.00	..	3.00	..
4. Mobile Medical Unit for Tribal Block, Attappady	1.50	2.50	2.50	15.00	..	2.50	..
5. Community Health Worker Scheme (State Share)	0.005	5.50	5.50	87.00	..	14.00	..
Sub Total	105.005	117.50	117.50	782.00	190.00	137.00	40.00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Hospitals and Dispensaries</i>							
1. Improvement of Health Care and Delivery System(*)	32.545	29.501	29.501	479.30	300.00	50.00	35.00
2. Construction of District Hospital Buildings at Idukki and Malappuram	5.20	5.00	5.00	20.00	20.00	10.00	5.00
3. Polyclinics in District and General Hospitals	5.00	5.00	5.00	25.00	20.00	5.00	4.00
4. Janatha Pay Ward and Paywards Scheme (KHR & WS)	4.00	49.001	49.001	116.50	116.50	50.00	50.00
	1.00	8.00	8.00	150.00	150.00	25.00	25.00
5. Opening New Taluk Hospitals at Devikulam, Peermade, Udumbanchola etc.	2.00	3.00	3.00	15.00	15.00	5.00	5.00
6. Construction of Building and Provision of Vehicle to District Medical Stores	1.00	2.00	2.00	8.00	8.00	4.00	4.00
7. Improving Medical Facilities in Idukki District	1.00	1.00	1.00	5.00	..	1.00	..
8. Providing Ambulance in District and Taluk Hospitals	2.00	1.00	1.00	10.00	..	2.00	..
9. Mobile Dispensary, Kuttanad	0.10	1.00	1.00	3.00	..	1.00	..
10. Health transport including mobile unit for repairs and maintenance of hospital equipments	0.10	1.32	1.32	3.00	..	0.50	..
11. Institute for Mental Health and Neuro Sciences	0.50	1.00	1.00	25.00	..	3.00	..
12. Revision of staff pattern—Nurses	1.00	5.00	5.00	100.00	..	7.00	..
13. Cancer Detection Centre in District Hospitals	1.00	3.00	3.00	15.00	..	3.00	..
14. Opening of District Offices and Office of D.M.O. (H) Wynad	..	..	..	5.00	..	1.00	..
Sub-Total - Hospitals & Dispensaries	56.745	114.273	114.273	915.501	629.50	167.50	128.00
<i>Medical Education and Research</i>							
1. Medical College, Trivandrum@	29.00	33.00	33.00	330.00	203.00	47.00	32.00
2. Establishment of Regional Cancer Institute, Trivandrum (State share)	4.50	6.00	6.00	100.00	100.00	20.00	20.00
3. Dental college, Trivandrum	0.45	1.00	1.00	60.00	30.00	10.00	8.00
4. College of Pharmaceutical Science Trivandrum	3.00	3.00	3.00	13.00	5.00	3.00	2.50
5. Regional Limb Fitting Centre, Medical College, Trivandrum	..	2.50	2.50	20.00	..	4.00	..
6. Re-orientation of medical education and upgradation of the Dept. of ophthalmology Medical College, Trivandrum (State Share)	6.50	20.00	20.00	75.00	25.00	13.00	10.00
7. Medical College, Calicut	23.70	26.00	26.00	325.00	210.00	39.00	30.00
8. Medical College, Kottayam	29.00	35.00	35.00	325.00	225.00	50.00	40.00
9. Medical College, Alleppey	30.25	31.00	31.00	300.00	250.00	60.00	52.00
10. Providing generators in Medical College hospitals	3.00	1.00	1.00	10.00	10.00	2.00	2.00
11. Training of teachers in specialities and continuing medical education	2.00	3.00	3.00	10.00	..	2.00	..
12. Nursing education (medical colleges: paramedical training programme and health visitors in P. H. Nursing)	7.00	15.50	15.50	80.00	..	15.00	..
Sub Total—Medical Education & Research	138.40	178.00	178.00	1648.00	1058.00	265.00	196.50

(\*) Includes the following schemes.

1. Raising bed strength in District Hospitals.
2. Introducing all essential specialities in District Hospitals.
3. Better equipments to major hospitals including sterilizer.
4. Taluk headquarters hospitals—raising bed strength etc.
5. Providing specialities, opening new units and strengthening of medical record section in taluk hospitals (including paediatric ward)
6. Improvement of health care system.
7. Continuing specialities in major hospitals.

@ Included (1) development of department of gastroenterology (a) Centre of respiratory allergy and antigen manufacture.  
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	(1)	(2)	(2)	(4)	(5)	(6)	(7)	(8)
<i>Public Health and Sanitation</i>								
<i>Control of Communicable Diseases</i>								
1. (a) Tuberculosis (Operational Cost)		1.00	1.00	..	5.00	3.00	1.00	0.70
(b) Tuberculosis (Excluding Operational cost) State Share		3.60	12.00	13.00	40.00	..	5.00	..
2. Leprosy Control (State share)		0.05	2.00	2.00	20.00	..	4.60	..
3. Filariasis— Filariasis control (State share)		4.00	13.00	13.00	60.00	..	12.00	..
4. National Malaria Eradication (a) Programmes—Additional Operaton cost		11.60	7.60	7.60	35.00	..	7.00	..
(b) N. M. E. P. (State share)		11.42	13.00	13.00	65.00	..	13.00	..
5. Mass Immunisation Programme		2.00	2.00	2.00	15.00	..	3.00	..
<i>Others</i>								
6. Prevention of blindness including prevention of visual impairment and control of blindness mobile units, State share		3.00	12.00	12.00	50.00	..	10.00	..
7. Cholera		0.05	1.00	1.00	5.00	..	1.00	..
8. V.D. (S.T.D.)		0.10	5.00	5.00	25.00	..	5.00	..
9. Training and employment of multipurpose workers State share		1.99	5.00	5.00	150.00	..	25.00	..
Sub-Total		38.81	73.60	73.60	470.00	3.00	86.60	0.70
<i>Other Systems of Medicines.</i>								
<i>Indian systems of Medicine-Ayurveda Minimum Needs Programme.</i>								
1. (a) Opening of new dispensaries		8.00	8.00	14.00	50.00	10.00	12.00	3.50
(b) Special Component Plan		..	..	..	20.00	4.00	3.00	1.00
2. Upgrading dispensaries into hospitals		2.00	4.00	4.50	15.00	..	4.00	..
3. (a) Opening new ayurvedic hospitals in rural areas		2.50	4.00	4.00	23.00	5.00	5.00	1.00
(b) Special Component Plan		..	..	..	10.00	2.50	1.00	0.50
4. Construction of buildings to ayurveda hospitals, dispensaries and increasing bed strength		12.00	3.50	3.50	20.00	20.00	5.00	5.00
5. Construction of nurses' quarters to hospitals in rural areas.		5.00	5.00	5.00	15.00	15.00	5.00	5.00
6. Starting of Mobile Dispensaries		2.00	1.00	1.00	5.00	..	2.00	..
<i>Hospitals and Dispensaries</i>								
1. Opening of New Hospitals Other than in Rural Areas.		..	1.00	1.00	7.50	2.50	1.50	0.50
2. Construction of buildings to Ayurveda Hospitals		..	6.00	6.00	10.00	10.00	4.00	4.00
3. Starting marna section in Taluk Hospitals, and development of Panchakarma		0.50	0.50	0.50	2.00	..	0.40	..
4. Improvement of Mental Hospital, Kottakkal		0.25	1.00	0.10	1.00	..	..	..
5. Nature Cure Centre, Varkala		0.50	2.50	1.50	10.00	5.00	3.00	2.00
6. Establishment of Sidha Vaidya Hospitals and Dispensaries		0.20	0.50	0.50	1.00	..	0.10	..
7. Starting specialities in Hospitals & Strengthening of Staff		..	..	..	10.00	..	2.00	..
8. (a) Strenghtening of Staff in the Directorate		2.00	2.00	..	5.00	..	1.00	..
(b) Strengthening of Administrative wing in the District Offices		..	..	..	5.00	..	1.00	..
9. Purchase of vehicles for Directorate and District Offices		1.50	1.50	1.50	8.00	8.00	4.00	4.00
10. Improvement of Central Stores & Establishment of District Offices		1.00	3.50	1.50	10.00	..	6.00	..
11. Raising the Status of hospitals into District Hospitals		2.00	3.00	3.00	10.00	..	3.00	..
12. Construction of buildings for District Offices		2.00	2.00	1.50	2.00	2.00	..	..
13. Raising the bed strength in the District Ayurveda Hospitals		..	..	..	10.00	..	1.50	..
14. Staff quarters for 100 dispensaries (transferred to medical education)		5.00	..	..	10.00	10.00	2.00	2.00
<i>Education (Ayurveda)</i>								
1. Ayurveda College, Trivandrum		0.50	1.00	1.00	10.00	..	2.00	..
2. Ayurveda College, Trippunithura		0.50	1.50	1.50	8.00	..	2.00	..
3. Grant-in-aid to private Ayurveda Colleges at Shoranur, Kottakkal and Ollur		1.50	0.85	0.85	4.50	..	0.95	..
4. Regional Research Institute, Poojappura (including model demonstration garden of herbs and botanical gardens) (State Share)		3.25	10.10	10.10	44.00	44.00	10.00	10.00
National Institute of Ayurveda		..	0.001	..	0.001	..	..	..

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
5. Training in Prakrithi Chikilsa	0.10	0.30	0.30	2.00	..	0.50	..	
6. Construction of Men's and Ladies' Hostels and Staff Quarters, Pharmacy Building etc., for Ayurveda College, Trivandrum	2.00	2.00	2.00	30.00	30.00	5.00	5.00	
7. Collection and Preservation of Manuscript	0.10	0.20	0.20	5.00	..	0.50	..	
8. Preparation of Text Books	1.00	0.35	0.35	5.00	5.00	0.50	0.50	
9. Expansion of College Libraries	0.20	0.50	0.50	3.00	3.00	1.00	1.00	
10. Specialisation in various branches of Ayurveda	0.20	0.20	0.20	2.00	..	0.50	..	
11. Condensed Degree Courses for Diploma holders	0.20	0.50	0.50	2.50	..	0.50	..	
12. Strengthening of Publication Division-Ayurveda College, Trivandrum	0.20	0.50	0.50	10.00	2.00	1.00	0.20	
13. Refresher course for paramedical staff, teachers and medical officers	..	0.50	0.50	2.50	..	0.50	..	
14. Expansion of collegiate Hospital at Trivandrum	0.60	1.00	1.00	20.00	15.00	3.00	2.25	
15. Construction of Buildings for Pharmacy Hostel, Hospital, College and Staff Quarters for the Ayurveda College, Trippunithura	2.50	5.00	5.00	30.00	30.00	6.00	6.00	
16. Payward facilities for Ayurveda College, Hospitals	0.75	1.00	1.00	20.00	20.00	2.00	2.00	
17. Continuing degree course in Pharmacy	0.25	0.25	0.25	5.00	..	1.00	..	
18. Training programme for Nurses and Pharmacists	0.25	0.25	0.25	2.00	..	0.50	..	
Sub-Total-Ayurveda	64.05	76.251	75.150	465.001	249.00	103.95	55.45	

*Homoeopathy**I. Minimum Needs Programme*

1. (a) Rural Dispensaries	9.00	7.25	7.25	40.00	20.00	8.00	4.00	
(b) Special Component Plan for S.C. Minimum Needs Programmes	..	..	..	20.00	10.00	2.00	1.00	
	9.00	7.25	7.25	60.00	30.00	10.00	5.00	

*II. Hospitals and Dispensaries*

1. District Hospitals and Dispensaries (including opening of Homoeo Dispensaries and Hospitals in Idukki, Malappuram and Quilon)	3.50	3.65	3.65	20.00	20.00	4.00	4.00	
2. Taluk Hospitals	1.00	2.00	2.00	15.00	..	3.00	..	
3. District Offices	1.00	1.00	1.00	1.00	..	..	..	
4. Strengthening of administrative machinery including building for Directorate	2.00	2.10	2.10	7.00	..	2.00	..	
5. Increasing Bed Strength in District and Taluk hospitals	0.50	0.25	0.25	5.50	..	1.00	..	
6. Providing modern equipments and other facilities in hospitals	1.50	0.25	0.25	5.00	5.00	1.00	1.00	
7. Starting of Drugs Units	0.50	0.25	0.25	5.00	5.00	0.50	0.50	
8. Construction of buildings for existing hospitals and dispensaries	2.00	0.75	0.75	5.00	5.00	1.00	1.00	
9. Co-operative society for the manufacture of Homoeo medicines	1.00	0.50	0.50	2.50	2.50	0.50	0.50	
10. Mobile dispensaries	..	..	..	5.00	..	1.50	..	
11. Purchase of departmental vehicles	..	..	..	7.00	7.00	2.00	2.00	

*III Education*

1. Development of existing Homoeopathic degree College Kozhikode, Homoeopathic Buildings and Hospital buildings	4.00	11.00	11.00	50.00	20.00	11.00	8.00	
2. Refresher course to Medical Officers	..	..	..	2.00	..	0.50	..	
3. Starting of Degree college and Hospital	2.00	2.00	2.00	10.00	..	2.00	..	
Sub-Total—Homoeo	29.50	32.00	32.00	200.00	94.50	40.00	22.00	

*Other Programmes*

1. Laboratory Services								
(a) State Public Health Laboratory and regional laboratories	2.00	3.00	3.00	80.00	..	10.00	..	
(b) Chemical Examiners Laboratory	1.00	2.30	2.30	40.00	..	10.00	..	
2. Drugs control	3.00	4.00	4.00	22.00	..	4.00	..	
3. Health Statistics and Research	0.20	0.20	0.20	10.00	..	1.00	..	
4. Health Education and Publicity	1.00	1.00	1.00	5.00	..	1.00	..	
5. Food Administration (augmentation)	9.00	9.00	9.00	30.00	..	9.00	..	
6. Government Analyst's Laboratory	6.00	6.00	6.00	50.00	..	8.00	..	

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>School Health Programme</i>							
7. (a) A sanitation centre under Directorate of Health Services	7.00	4.00	4.00	..	..	..	..
(b) Health card for school children	..	100.00	100.00	400.00	..	100.00	..
8. Tribal Sub Plan	2.80	3.00	3.00	15.00	..	3.00	..
9. Power Laundries and Generators	1.00	0.50	0.50	20.00	..	3.00	..
10. Prevention of Air & Water Pollution	6.00	3.00	3.00	88.00	..	15.00	..
11. Pharmaceutical Corporation	1.00	1.00	1.00	25.00	..	5.00	..
Sub Total—Other Programmes	40.00	141.00*	141.00	785.00	..	169.00	..
12. Employees State Insurance (E.S.I.)	4.00	3.38	3.38	30.21	..	4.30	..
Total—Medical, Public Health and Sanitation	476.51	736.25	736.10	5395.71	2218.00	973.35	442.65

\* 1980-81 outlay includes Rs. 4 lakhs for Schemes benefiting Scheduled Castes / Tribes now shifted to Minimum Needs Programme.

*Centrally Sponsored Schemes with 100 per cent Central Assistance*

*Family Welfare Programme*

The family welfare programme deserves high priority as the reduction of birth rate is accepted as a

national necessity. The ultimate objective of the scheme is to bring about a reduction in the birth rate. A total outlay of Rs. 5,040 lakhs is proposed for the Sixth Plan period to continue the family welfare programmes. The following programmes that will be carried out during the Sixth Plan period are indicated in Table 5.45.

TABLE 5.45

Scheme	Proposed outlay	Capital Content	Proposed outlay	Capital Content
	1980-85 (Rs. lakhs) Total		1981-82 (Rs. lakhs) Total	
(1)	(2)	(3)	(4)	(5)
1. Continuance of the Schemes under State Bureau, District Bureau, Rural F. W. Centres and Rural F. W. Subcentres	4215	345	740	80
2. New District Family Welfare Bureau for the proposed Wynad District	5	..	1	..
3. Starting of new Post-partum Centres in all Taluk Hospitals including Construction of Building	155	..	20	..
4. Construction of Operation Theatre for Sterilisation in all P. H. Centres	60	60	15	15
5. Starting of Mobile Teams attached to each P. H. Centre for extending Sterilisation facilities in Rural Areas	160	..	25	..
6. Additional Sterilisation Beds in Taluk Hospitals and P. H. Centres	130	..	25	..
7. Supply of Additional Equipments to all Hospitals and P. H. Centres to increase the Sterilisation Facilities	80	80	20	20
8. Increasing the Amount of Compensation to Acceptors	200	..	50	..
9. Starting of New Schools for Female Health Workers in 7 Districts	50	..	5	..
10. Expansion of Immunisation programme under MCH	105	..	25	..
11. Family Welfare Hospital Complex	80	..	..	..
Total	5040	485	926	115

**Regional Cancer Centre, Trivandrum.**

Cancer is a major health problem in Kerala as evidenced by the fact that about 1 in 800 of the population suffers from this disease. About 13 per cent of the deaths in Kerala are due to cancer. Considering this, the Wats Committee on Cancer Problems in India in their report in 1972 has recommended the establishment of a Regional Cancer Centre at Trivandrum. In the light of this recommendation the Department of Cancer in the Medical College, Trivandrum, was converted into a Cancer Institute. The Government of Kerala have sanctioned recently the upgradation of this Institute to one of national reputation, viz. Regional Cancer Centre, Trivandrum. This Centre envisages provision of all the necessary facilities for cancer diagnosis assessment, preservation and treatment, training in oncology and allied subjects and research and development in early detection of Cancer. This scheme is included as a scheme with 100 per cent central assistance in the Sixth Plan. An outlay of Rs. 1000 lakhs is to be provided for the overall development of the institutions during the plan period.

**Programme for Higher Education, Research and Training (ISM)**

At present the Centre for Higher Education, Research and Training is functioning as a separate unit under a Project Officer and separate post-graduate departments for five branches are existing. A post-graduate diploma department has to be organised to accommodate 'Visha' in addition to the above post-graduate degree courses. The Sixth Plan provision is for the continuance of the existing departments, starting a new department and for strengthening the centre with necessary staff.

**Establishment of I. S. M. Pharmacies**

This plan scheme aims at developing the I. S. M. Pharmacy attached to the Ayurveda College, Trivandrum. Installation of up-to-date machinery for the manufacture of Ayurvedic medicines is envisaged. A provision of Rs. 25 lakhs is provided in the Plan for the above purpose.

A list of Centrally sponsored schemes is furnished in Table 5.46.

TABLE 5.46

**Health—Centrally Sponsored Schemes (1980-85)**

Scheme	Total Outlay 1980-85	Proposed Central Assistance 1980-85	(Rs. in lakh.)	
			Proposed Outlay 1981-82	Proposed Central Assistance
(1)	(2)	(3)	(4)	(5)
1. Family Welfare Programme	5040.00	5040.00	926.00	926.00
2. Regional Cancer Centre, Trivandrum	1100.00	1000.00	300.00	275.00
3. Programme for Higher Education Research and Training (I. S. M.)	117.40	117.40	25.60	25.60
4. Establishment of I. S. M. Pharmacies	25.00	25.00	5.00	5.00
5. Reorientation of Medical Education	150.00	75.00	26.00	13.00
6. Community Health Workers' Schemes	174.00	87.00	28.00	14.00
7. Control of Communicable Diseases	300.00	150.00	55.20	27.60
8. National Programme for Prevention and Control of Visual Impairment	100.00	50.00	20.00	10.00
9. N. M. E. P.	130.00	65.00	26.00	13.00
10. Training and Employment of Multipurpose Workers	300.00	150.00	50.00	25.00
<b>Total</b>	<b>7436.40</b>	<b>6759.40</b>	<b>1461.80</b>	<b>1334.20</b>

**Sewerage and Water Supply**

The decade 1981-1990, is declared as the 'International Decade for Drinking Water Supply and Sanitation'. The following are the objectives and targets proposed for the decade:

- (i) *Urban Water Supply*: 100 per cent coverage of all the urban areas.
- (ii) *Urban Sewerage*: 100 per cent coverage of all the Class I towns and 80 per cent coverage of

the remaining urban population.

- (iii) *Rural Water Supply*: 100 per cent coverage of the entire rural population
- (iv) *Rural Sanitation*: 25 per cent coverage of the rural population.

The objectives and targets for the Sixth Plan have been set within this perspective frame. Realisation of these objectives would require huge investments. In this connection the possibility of obtaining substantial



assistance from international and bilateral agencies is being explored. Already a number of water supply schemes are posed for bilateral and World Bank assistance. The following are the Sixth Plan proposals.

### 1. *Direction and Administration*

#### (i) *Setting up of a Planning Cell*

The provision earmarked is for the creation of a Planning Cell in the Public Health Engineering Department for planning, evaluation and monitoring of the sewerage and water supply programmes in the State.

#### (ii) *Strengthening of the Execution Units for Plan Schemes*

A large number of schemes are now under execution and more schemes are proposed to be taken up during the Sixth Plan. The existing staff position is inadequate to cope with the increased workload. Hence it is proposed to strengthen the execution units. The provision is intended for strengthening the execution units for plan schemes with additional staff and vehicles and also for continuance of the existing units.

### 2. *Survey and Investigation*

#### *Investigation, Planning and Design Unit*

For the realisation of the objectives and targets set for the decade, a large number of water supply and sewerage projects has to be prepared for availing financial assistance from the World Bank and other financial institutions. The Investigation, Planning and Design Units of the Department of Public Health Engineering have to be suitably strengthened for this task. The outlay earmarked in the Plan is meant for the continuance of the existing units and for their strengthening.

### 3. *Research*

#### *Research Wing*

For undertaking research on the various aspects of quality control and operation of water treatment plants etc. a Research Wing with a cell for ground water exploration is essential in the Public Health Engineering Department. The provision made in the Plan is meant for the creation of such a wing.

### 4. *Training*

#### *Training Programme*

The outlay is meant for meeting the expenditure on training of personnel belonging to the Public Health Engineering Department. The training will be on the various aspects of Public Health Engineering.

### 5. *Machinery and Equipment*

#### *Inventory Control Unit*

The purchase, storage, upkeep and utilisation of large variety of materials and equipments which are essential for the execution and maintenance of water supply and sewerage systems have to be organised on scientific lines. A special organisation has to be set up in the Public Health Engineering Department for the

purchase of major items of materials and for controlling and watching its effective utilisation and monitoring. The provision is intended for the creation of an inventory control unit with the necessary staff and equipments required for inventory control.

### 6. *Sewerage Schemes*

#### (i) *Trivandrum Sewerage Scheme*

This scheme is intended to provide sewerage facilities to an additional area of 15 sq. Kms. in Trivandrum City. The provision made in the Plan is for this purpose.

#### (ii) *Quilon Sewerage Scheme*

The scheme is intended to provide sewerage facilities in the most densely populated areas of Quilon Town. The works on this scheme will be continued during the Plan period.

#### (iii) *Calicut Sewerage Scheme*

The scheme is designed to cover an area of 45 sq. Kms in Calicut Town. Necessary provision has been included in the Plan for continuing the works on this Scheme

#### (iv) *Guruvayoor Sewerage Scheme*

This is a continuing Scheme which is intended to provide sewerage facilities to the entire township.

#### *New Schemes*

It is proposed to take up sewerage schemes to cover the remaining areas of Trivandrum, Quilon, Cochin and Calicut and also to commence work on the Alleppey sewerage scheme during the Sixth Plan period. The schemes proposed are:—

(v) Trivandrum Sewerage Scheme	Stage II
(vi) Quilon Sewerage Scheme	Stage H
(vii) Alleppey Sewerage Scheme	
(viii) Cochin Sewerage Scheme	Stage II
(ix) Calicut Sewerage Scheme	Stage II

### 7. *Distribution of E.S.P. Type Latrines*

The scheme envisages supply of E.S.P. Type squatting slabs at subsidised rates to the economically weaker sections especially to the Harijans and residents of the housing colonies of the weaker sections. The provision is meant for the above purpose.

### 8. *Drainage Schemes*

#### *Cochin Storm Water Drainage Scheme*

Many parts of the Cochin City get flooded during the rainy seasons and the necessity for a drainage scheme was keenly felt during the rainy season in 1979. The provision made in the Plan is meant for the above scheme.

### 9. *Urban Water Supply*

#### (i) *Greater Cochin Water Supply and Sewerage Scheme*

Under this comprehensive scheme for water supply and sewerage to Greater Cochin area, only a limited

area of the City is proposed to be covered during the Sixth Plan period. The outlay proposed is for the above scheme.

(ii) *Chalaky Water Supply Scheme*

The scheme is designed to serve the entire Municipality. The outlay proposed is for the above scheme.

(iii) *Punalur Water Supply Scheme*

The scheme is intended to provide water supply to the entire municipal town. The outlay proposed is for the above scheme.

(iv) *Tirur Water Supply Scheme*

The outlay proposed in the Plan is for the implementation of the scheme.

(v) *Vaikom Water Supply Scheme*

This scheme is designed to serve the Vaikom Municipal Town and some of the neighbouring Panchayats. The outlay proposed is for the implementation of the scheme during the Sixth Plan period.

(vi) *Construction of a Storage Dam at Peppara for Augmentation of the Trivandrum Water Supply Scheme*

The Plan provision earmarked is to complete the balance works on the construction of the dam to meet the increasing demand for water in Trivandrum.

(vii) *Cranganmoor Water Supply Scheme*

The scheme is intended to provide water supply to the entire municipal town and the outlay proposed is for the implementation of the scheme.

(viii) *Angamali Water Supply Scheme*

The Plan provision is meant for the implementation of the scheme.

(ix) *Completion of Partially Commissioned Schemes*

The outlay proposed is for the completion of the balance works on the partially commissioned schemes.

(x) *Improvements to Existing Schemes*

The provision is for improvements to some of the existing water supply schemes which are in urgent need of improvement.

*New Schemes*

The following Urban Water Supply Schemes are newly proposed for implementation during the Sixth Plan period:

(xi) *Iathanamthitta Water Supply Scheme*

(xii) *Thodupuzha Water Supply Scheme*

(xiii) *Tripanithura Water Supply Scheme*

(xiv) *Medumangal Water Supply Scheme*

(xv) *Chengannur Water Supply Scheme*

(xvi) *Kothamangalam Water Supply Scheme*

(xvii) *Ponnani Water Supply Scheme*

(xviii) *Chowghat Water Supply Scheme*

(xix) *Shornur Water Supply Scheme*

(xx) *Mangeri Water Supply Scheme*

(xxi) *Water Supply Schemes to Newly Formed Municipalities*

It is proposed to take up water supply schemes to all the newly formed Municipalities during the Sixth Plan. The outlay proposed is to take up water supply schemes for the newly formed Municipalities as and when they are formed, and

(xxii) *Idukki Township Water Supply Scheme*

It is proposed to provide drinking water supply to the Idukki Township during the Sixth Plan with World Bank Loan Assistance.

*Augmentation Schemes*

(i) *Palghat Water Supply (Augmentation) Scheme*

The scheme is meant for augmenting the existing Water Supply system which is inadequate to meet the present demand.

(ii) *Trichur Water Supply (Augmentation) Scheme*

This scheme envisages the augmentation of the existing scheme which is grossly inadequate to meet the present demand.

*Other Continuing Augmentation Schemes*

Provision has been included in the Sixth Plan for the following continuing water supply (Augmentation) Scheme:

(iii) *Malappuram Water Supply (Augmentation) Schemes*

(iv) *Kayamkulam Water Supply (Augmentation) Scheme;*

(v) *Sherthalai Water Supply (Augmentation) Scheme; and*

(vi) *Palai Water Supply (Augmentation) Scheme.*

In addition to the above, the following new urban water supply (augmentations) schemes will be taken up during the Plan period.

(vii) *Alleppey Water Supply (Augmentation) Scheme*

(viii) *Cannanore Water Supply (Augmentation) Scheme*

(ix) *Badagara Water Supply (Augmentation) Scheme*

(x) *Greater Trivandrum Water Supply Scheme*

(xi) *Greater Calicut Water Supply Scheme*

(xii) *Quilon Water Supply (Augmentation) Scheme*

The existing water supply scheme to Quilon town is inadequate to meet the present demand and an augmentation scheme is to be implemented urgently. It is proposed to take up this scheme with World Bank assistance. The outlay is for the implementation of the above scheme.

(xiii) *Kottayam Water Supply (Augmentation) Scheme*

The Kottayam Water Supply Scheme is also in urgent need of augmentation. The scheme is proposed to be taken up and completed during the Sixth Plan period with loan assistance from the World Bank.

10. *Water Supply Scheme for the Industrial Requirements of Cochin Area*

The industrial water requirement in the Cochin area is assuming considerable importance with large number of new industries coming up in the area in addition to the expansion of the existing units like Cochin Refineries, FACT etc. It is proposed to take up a project for providing water supply for the industrial requirements of the Cochin area. The project envisages development of the water resources of the Moovattupuzha river with head works at Ramamangalam and conveying the water to Cochin area. Preliminary estimates put the cost of the project at about Rs. 25 crores. The outlay is intended for taking up the project in the Sixth Plan.

*Minimum Needs Programme*11. *Rural Water Supply Schemes**Piped Water Supply*(i) *Rural Water Supply Schemes (L. I. C. Aided)*

A number of rural water supply schemes are proposed to be taken up during the Sixth Plan period with L. I. C. loan assistance. The outlay provided in the Sixth Plan is for the implementation of such schemes.

(ii) *Other Rural Water Supply Schemes (Continuing and New)*

These are schemes proposed to be taken up without L. I. C. loan assistance. The outlay provided in the Plan is for the implementation of such schemes during the plan period.

(iii) *Comprehensive Water Supply Scheme to Ayloor-Nemmara*

The outlay proposed is for the execution of the water supply scheme for the benefit of the Ayloor-Nemmara area.

(iv) *Sabarimala Water Supply Scheme*

The scheme envisages provision of drinking water to Sabarimala area for the benefit of the Pilgrims. The scheme is proposed to be completed during the Sixth Plan.

(v) *Accelerated Rural Water Supply Schemes (Spill over)*

Certain rural water supply schemes taken up under the centrally sponsored scheme 'accelerated rural water supply scheme' could not be completed when the scheme was discontinued after 1973-74. The provision made in the Plan is meant for completing these spill over works under the State sector.

In addition to the above, provision is also made for the following schemes:

(vi) *Improvements to Existing Rural Water Supply Schemes*(vii) *Special Repairs and Maintenance to Rectify Flood and Cyclone Damage*(viii) (a) *Other Water Supply Schemes Benefiting Harijans*

Water supply schemes exclusively for the benefit of Harijans are being implemented under this programme. The outlay proposed is for the same.

(b) *Protected Water Supply to Tribal Areas*

Schemes exclusively for the benefit of tribal people in the Tribal Sub-Plan Areas are proposed to be implemented under this programme. The outlay proposed is for the implementation of the above schemes.

*Schemes Posed for Bilateral Assistance*

The following are the rural water supply schemes posed for bilateral assistance.

(ix) *Comprehensive Water Supply Schemes to Nattika Firka*

This scheme is proposed to be completed during the Sixth Plan period with bilateral assistance. The outlay proposed is for the same.

(x) *Comprehensive Water Supply Scheme to Vakom, Kadakkavur, Chirayinkil, Anjengo etc.*

It is proposed to complete the scheme during the Sixth Plan period with bilateral assistance. The outlay proposed is for the same.

(xi) *Kuttanad Water Supply Scheme*

Works on this scheme have been dragging for long due to inadequacy of allocations in the budget. It is proposed to complete this scheme during the Sixth Plan period with bilateral assistance.

*Rural Water Supply Schemes Posed for World Bank Assistance*

The following rural water supply schemes are posed for World Bank Assistance:-

(xii) *Water supply scheme to Cochin Development Area (Central Zone and South West Zones)*(xiii) *Vilappil water Supply scheme*(xiv) *Venchochira water supply scheme*(xv) *Koipuram water supply scheme*(xvi) *Cheriyanaad water supply scheme*(xvii) *Thalanad water supply scheme*(xviii) *Comprehensive water supply scheme to Chitara-Kadakkal and Nilamel*(xix) *Comprehensive water supply schemes to Adoor, Ezhamkulam and Pattazhi*(xx) *Comprehensive water supply scheme to Kundara and adjoining panchayats*(xxi) *Comprehensive water supply scheme to Vadavucode Puthencruz and Ayikaranad*(xxii) *Comprehensive water supply scheme to Mala, Annamada, Kuzhoor and Poyya*

- (xxiii) Comprehensive water supply scheme to Kottathara, Mattathucode and Anakatty
- (xxiv) Comprehensive water supply scheme to Thavannur, Edappal, Vattakulam, Alumcode, etc.
- (xxv) Comprehensive water supply scheme to Sultan Battery and Noolpuzha
- (xxvi) Comprehensive water supply scheme to Quilandy and adjacent panchayats.
- (xxvii) Comprehensive water supply scheme to Chumbalukode, Kondotty and Feroke
- (xxviii) Comprehensive water supply scheme to Payyannaur and adjacent Panchayats.
- (xxix) Comprehensive water supply scheme to Kottakkal and Parappur

12. *Open Dug Wells*

The scheme envisages provision of drinking water facilities through open dug wells in areas not served by piped water supply. Open dug wells will be provided in all Harijan and Girijan colonies, colonies under the One Lakh Housing Scheme, remote backward villages and places where there is concentration of economically weaker sections of the community. The programme will be tied-up with the housing schemes for weaker sections. It is also proposed to provide financial assistance to Harijans and economically backward sections to construct parapet walls to existing drinking water wells to avoid contamination of the well water by the leaching of flood water into the wells during rainy seasons.

TABLE 5.47

## Sewerage and Water Suppl—Scheme-wise Outlay

(Rs. in lakhs)

Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
		Approved outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>1. Direction &amp; Administration</b>							
(i) Setting up of a Planning Cell	..	3.00	3.00	15.00	..	3.00	..
(ii) Strengthening of Execution Units for Implementation of Plan Schemes	..	1.00	20.00	50.00	..	10.00	..
<b>2. Survey and Investigation</b>							
Investigation, Planning and Design Units, Including Strengthening of Units	23.53	29.00	45.00	125.00	..	50.00	..
<b>3. Research</b>							
Research Wing	..	1.00	1.00	10.00	..	2.00	..
<b>4. Training</b>							
Training Programme	1.11	2.00	2.00	15.00	..	2.00	..
<b>5. Machinery and Equipments</b>							
Inventory Control, Staff and Equipments	..	1.00	1.00	2.00	..	0.50	..
<b>6. Sewerage Schemes</b>							
(i) Trivandrum Sewerage Scheme	33.40	45.00	64.66	350.00	233.00	55.00	37.00
(ii) Quilon Sewerage Scheme	24.40	45.00	45.00	350.00	233.00	55.00	37.00
(iii) Calicut Sewerage Scheme	26.35	45.00	45.00	350.00	233.00	55.00	37.00
(iv) Guruvayoor Sewerage Scheme	6.25	10.00	10.00	25.00	17.00	10.00	7.00
(v) Trivandrum Sewerage Scheme Stage II	..	..	..	25.00	17.00	..	..
(vi) Quilon Sewerage Scheme Stage II	..	..	..	25.00	17.00	..	..
(vii) Alleppey Sewerage Scheme	..	..	..	25.00	17.00	..	..
(viii) Cochin Sewerage Scheme—Stage II	..	..	..	25.00	17.00	..	..
(ix) Calicut Sewerage Scheme—Stage II	..	..	..	25.00	17.00	..	..
7. Distribution of ESP Type Latrines.	25.67	20.00	20.00	135.00	83.00	26.00	19.00
<b>8. Drainage Schemes</b>							
Cochin Storm Water Drainage Scheme	..	20.00	44.00	75.00	50.00	24.00	16.60

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>9. Urban Water Supply</b>								
(i) Greater Cochin Water Supply and Sewerage Schemes		122.50	100.00	183.00	500.00	335.00	100.00	67.00
(ii) Chalakdy do.		8.45	2.00	2.00	10.00	6.50	3.00	2.00
(iii) Punalur do.		8.15	2.00	4.27	6.00	4.00	3.00	2.00
(iv) Tirur do.		7.05	3.00	3.60	10.00	6.50	3.00	2.00
(v) Vaikom do.		27.32	2.00	18.30	35.00	24.00	9.00	6.00
(vi) Construction of a Storage Dam at Peppara for Augmentation of Trivandrum W.S.S.		51.65	170.00	244.00	670.00	450.00	200.00	133.00
(vii) Cranganoor W.S. Scheme		33.60	25.00	67.10	125.00	85.00	50.00	33.00
(viii) Angamali W.S. Scheme		8.90	10.00	9.50	80.00	53.00	30.00	20.00
(ix) Completion of Partially Commissioned Schemes		87.80	20.00	20.00	150.00	100.00	30.00	20.00
(x) Improvements to Existing Schemes		..	25.00	20.00	50.00	33.00	2.00	1.30
(xi) Pathanamthitta Water Supply Scheme		..	10.00	12.00	87.00	58.00	30.00	20.00
(xii) Thodupuzha do.		..	10.00	10.00	102.00	68.00	30.00	20.00
(xiii) Thrippunithura do.		..	15.00	10.00	100.00	66.00	30.00	20.00
(xiv) Nedumangad Water Supply Scheme		..	..	..	10.00	6.50	1.00	0.65
(xv) Chengannur do.		..	..	..	9.00	6.00	1.00	0.65
(xvi) Kothamangalam do.		..	..	..	10.00	6.50	1.00	0.65
(xvii) Ponnani do.		..	..	..	15.00	10.00	1.00	0.60
(xviii) Chowghat do.		..	..	..	14.00	10.00	1.00	0.65
(xix) Shoranur do.		..	..	..	15.00	10.00	1.00	0.65
(xx) Manjeri do.		..	..	..	10.00	6.50	1.00	0.65
(xxi) Water Supply Scheme to Municipalities Formed during the Sixth Plan Period		..	17.00	17.00	17.00	10.00	..	..
(xxii) Idukki Township Water Supply Scheme		..	..	..	250.00	167.00	25.00	16.00
<b>Augmentation Schemes:</b>								
(i) Palghat Water Supply (Aug) Scheme		64.54	25.00	73.20	85.00	56.00	15.00	10.00
(ii) Trichur do.		110.35	45.00	146.40	160.00	107.00	15.00	10.00
(iii) Malappuram do.		14.14	20.00	19.57	24.00	16.00	3.00	2.00
(iv) Kayamkulam do.		17.65	10.00	6.10	15.00	10.00	3.00	2.00
(v) Sherthalai do.		8.02	10.00	5.00	10.00	6.00	5.00	3.50
(vi) Palai do.		12.65	10.00	12.20	20.00	13.00	5.00	3.50
(vii) Alleppey do.		..	..	..	50.00	34.00	2.00	1.00
(viii) Cannanore do.		..	..	..	20.00	13.00	10.00	6.50
(ix) Badagara do.		..	..	..	10.00	6.50	2.00	1.00
(x) Greater Trivandrum Water Supply Scheme		..	..	..	50.00	33.00	2.00	1.00
(xi) Greater Calicut do.		..	..	..	50.00	33.00	2.00	1.00
(xii) Quilon Water Supply (Aug.) Scheme		..	..	..	600.00	400.00	60.00	40.00
(xiii) Kottayam do.		..	1.00	..	350.00	240.00	40.00	27.00
<b>10. Water Supply Scheme for Industrial Requirements of Cochin Area</b>								
		..	..	..	1000.00	700.00	200.00	70.00

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Minimum Needs Programme</i>								
11. <i>Rural Water Supply Schemes</i>								
<i>Piped Water Supply</i>								
(i) Rural Water Supply Schemes (LIC Aided)	91.87	200.00	178.00	790.00	525.00	170.00	119.00	
(ii) Other Rural Water Supply Schemes (Continuing & New Ones)	155.06	237.00	121.00	461.00	267.00	54.00	36.00	
(iii) Comprehensive Water Supply Scheme to Ayloore Nemmara	8.86	15.00	18.50	39.00	26.00	15.00	10.00	
(iv) Sabarimala W.S. Scheme	..	20.00	20.00	50.00	35.00	20.00	14.00	
(v) Accelerated Rural Water Supply Schemes (Spillover)	2.49	1.00	3.00	5.00	3.50	2.00	1.00	
(vi) Improvements to Existing Schemes	..	..	10.00	100.00	65.00	15.00	10.00	
(vii) Special Repairs and Maintenance to Rectify Flood and Cyclone Damages	..	5.00	5.00	75.00	50.00	10.00	6.70	
(viii) Water Supply Schemes Benefiting Weaker Section of the Society								
(a) Other Rural Water Schemes for Benefiting Harijans	64.54	153.00	130.00	850.00	567.00	150.00	100.00	
(b) Protected Water Supply to tribal Areas (Tribal Sub Plan)	24.12	14.00	50.00	150.00	100.00	25.00	16.50	
<i>Schemes Posed for Bilateral Assistance</i>								
(ix) Comprehensive Water Supply Scheme to Nat-tika Firka	3.11	5.00	2.00	460.00	307.00	45.00	30.00	
(x) Comprehensive Water Supply Scheme to Vakkom —Anjengo	0.18	15.00	18.50	175.00	116.50	45.00	30.00	
(xi) Kuttanad Water Supply Scheme	..	..	60.00	400.00	267.00	50.00	33.00	
<i>Schemes Posed for World Bank Assistance</i>								
(xii) Water Supply Scheme to Cochin Development Area(Central Zone & South West Zones)	..	..	..	1960.00	1307.00	99.50	67.00	
(xiii) Vilappil Water Supply Schemes	..	..	..	20.00	13.00	2.00	1.00	
(xiv) Vechoochira Water Supply	..	..	..	42.00	28.00	5.00	3.00	
(xv) Koipuram do.	..	..	..	40.00	27.00	4.00	3.00	
(xvi) Cheriyanad do	..	..	..	30.00	20.00	4.00	3.00	
(xvii) Thalanad do.	..	..	..	14.00	10.00	1.00	0.50	
(xviii) Comprehensive W.S. Scheme to Chithara Kadakkal and Nilamel	..	..	..	125.00	84.00	14.00	10.00	
(xix) Do. Adoor, Ezhankulam and Pattazhi	..	..	..	80.00	53.00	8.00	5.00	
(xx) Do. Kundara and Adjoining Panchayats	..	..	..	140.00	93.00	15.00	10.00	
(xxi) Do. to Vadavucode, Puthencruz and Ayikaranad	..	..	..	40.00	27.00	4.00	3.00	
(xxii) Do. Mala, Annamanadu, Kuzhoor and Poyya	..	..	..	35.00	23.00	4.00	3.00	
(xxiii) Do. Kottathara, Mattachucadu and Anakketty	..	..	..	18.00	12.00	2.00	1.00	
(xxiv) Do. Thavannur, Edappal, Vattakulam, Alumcode, etc.	..	..	..	70.00	47.00	7.00	5.00	
(xxv) Do. Sulthanbattery and Noolpuzha	..	..	..	80.00	54.00	8.00	5.00	
(xxvi) Do. Quilandy and Adjacent Panchayats	..	..	..	200.00	133.00	20.00	13.00	
(xxvii) Do. Chumbalakode, Kondotty and Feroke	..	..	..	150.00	100.00	15.00	10.00	
(xxviii) Do. Payyanur & Adjacent Panchayats	..	..	..	200.00	133.00	20.00	13.00	
(xxix) Do. Kottakkal and Parappur	..	..	..	30.00	20.00	4.00	3.00	
12. Open Dug Wells	36.73	30.00	30.00	210.00	140.00	40.00	28.00	
<b>Total—Sewerage and Water Supply</b>	<b>1110.44</b>	<b>1449.00</b>	<b>1829.90</b>	<b>13385.00</b>	<b>8776.00</b>	<b>2086.00</b>	<b>1291.00</b>	

## Housing

A short description of various schemes included under housing in the Sixth Plan is given below:

### 1. *Housing Scheme for Industrial Workers*

The Kerala State Housing Board has drawn up proposals for a housing scheme for industrial workers drawing loan assistance from the HUDCO. According to the scheme Government have to provide a subsidy of Rs. 500 and loan assistance of Rs. 2500 for each house constructed under the scheme. The provision is for the above scheme and also for maintenance of the houses constructed earlier under the subsidised industrial housing scheme and housing scheme for the economically weaker sections of the community.

### 2. *Housing Scheme or Plantation Labour*

The scheme envisages provision of financial assistance to the planters, to provide rent free standard residential accommodation to plantation workers, at the rate of 50 per cent in the shape of loan and 37½ per cent as subsidy per house with a ceiling cost of Rs. 5000. The balance 12½ per cent will be borne by the employer. This was a Centrally sponsored scheme discontinued since 1979-80. It is proposed to continue the scheme in the State sector. However, assistance under the scheme will be provided only to the weakest among the planters coming under the provisions of the Plantation Labour Act.

### 3. *Low Income Group Housing Scheme*

The scheme envisages financial assistance by way of loans for house construction to persons whose annual income does not exceed Rs. 7200 and who have no house of their own. Loans are advanced at 8 per cent rate of interest, repayable in 360 equal monthly instalments or 30 equal annual instalments. The maximum loan admissible is Rs. 14,500. The Plan outlay set apart is for continuing the scheme.

### 4. *Middle Income Group Housing Scheme*

Under this scheme loans for house construction are advanced at 8 per cent rate of interest to persons who have no house of their own and whose annual income fall between Rs. 7,201 and Rs. 18,000. The maximum loan admissible is Rs. 27,500. The loan is repayable in 300 equal monthly instalments or 25 equal annual instalments. The outlay is for continuing the programme.

### 5. *Rental Housing Scheme for the Employees of State Government and Local Bodies*

The scheme is intended to construct houses and to give them on rental basis to the employees of State Government. It is proposed to provide rental housing accommodation to Government servants in all major towns in the State raising finance from institutional agencies like the HUDCO. The scheme will be implemented through the Housing Board. The scheme includes provision for the construction of a four storied building to accommodate 250 male employees of the Government on rental basis. The outlay is for the above purposes and also for the payment of annuity to the Kerala State Housing Board for the houses constructed by them earlier under the rental housing scheme.

### 6. *Construction of Quarters to Government Servants*

The provision is for the construction of residential quarters to Government Servants belonging to the higher income groups. The provision is for continuing the scheme.

### *Slum Clearance and Rehousing*

#### 7. *Slum Clearance and Rehousing Scheme*

The Chengalchoola Slum Improvement Scheme at Trivandrum is the only major slum improvement and rehousing scheme taken up by Government so far. The expenditure on this scheme is at present charged under the scheme for cooperative housing scheme for economically weaker sections. Expenditure for this scheme in 1979-80 was Rs. 24 lakhs.

It is necessary to take up slum improvement and rehousing schemes in some of the major cities during the plan period. The Plan provision allotted is for taking up slum improvement and rehousing schemes in some of the major cities in the State and also for continuing the slum improvement scheme at Chengalchoola.

#### 8. *Upgradation of Marginal Settlements*

The scheme for making structural and environmental changes to existing houses is now redesignated as upgradation of marginal settlements. The scheme is meant for providing financial assistance to families for the upgradation of their existing sub-standard houses. Financial assistance in the form of loans is given to such families to change the roof (from perishable to durable), to provide additional accommodation and to improve sanitary facilities such as bath and closet and water supply. The scheme is implemented through local bodies. The outlays for continuing the scheme.

#### 9. *Kerala State Housing Board*

The Housing Board depends mainly on institutional finance for implementing their housing programmes. At the same time the Board requires seed capital to serve as a buffer finance to make good the shortfalls in institutional finance raised by the Board for its various housing programmes. This seed capital is provided in the form of public borrowing. The outlay provided is for the public borrowing of the Housing Board.

### *Minimum Needs Programme*

#### 10. *Village Housing Project Schemes*

The scheme recognises the fact that improvement of village housing should form part of a programme for the all round economic and physical development of the rural areas. Under the scheme financial assistance for house construction is given to the residents of selected villages or to housing co-operatives for house construction on an aided self-help basis. The scheme envisages provision of common amenities such as streets and drains in these villages. The outlay is for continuing the scheme.

#### 11. *Settlement of Agricultural Labourers in Government Poramboke Lands*

The scheme provides for financial assistance for house construction at the rate of Rs. 1,500 (grant Rs. 1,100 and loan Rs. 400) to assignees of Government poramboke lands and to agricultural workers owning land not

exceeding 2 acres. Fifty per cent of such financial assistance is reserved to members of Scheduled Castes and Scheduled Tribes. The outlay is for continuing the above scheme.

#### 12. *Construction of Houses for Rural Workers*

Under this scheme financial assistance (Rs. 1,000) is provided for the construction of houses in house sites already allotted to landless workers in rural areas. The financial assistance is meant for the purchase of timber and tiles for the construction of houses. The outlay is provided for continuing the scheme.

#### 13. *Cooperative Housing Scheme for Economically Weaker Sections*

The Cooperative sector and the Housing Board have jointly launched a housing scheme for economically weaker sections in rural areas. The bulk of the finance comes as loans from HUDCO and the co-operative sector. Government gives a grant of Rs. 500 per house. It is proposed to construct 25,000 houses every year under this scheme. The provision is for meeting the grant portion of the above programme.

#### 14. *Share capital contribution to the Kerala Co-operative Housing Federation*

The cooperative Housing Federation has a programme to assist in the construction of 38,350 houses during the Sixth Plan period. To undertake this task, the Federation proposes to organise 79 new primary housing co-operatives in areas not covered so far. The Federation has to augment its resources to implement this massive programme by raising institutional finance mainly from the L.I.C. The share capital base of the Federation has to be strengthened to raise its borrowing capacity. The provision is towards share capital contribution to the Kerala Co-operative Housing Federation.

#### 15. *Housing Scheme in Kasargod*

The Scheme envisages improvement of the housing conditions in the backward taluqs of Kasargod and Hosdurg. The outlay is for continuing the programme.

#### 16. *Kerala State Development Corporation for scheduled Castes and Scheduled Tribes—Financial Assistance for Housing*

The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes has taken up in 1978-79 a housing scheme for the construction of 10,000 low cost subsidised houses at a unit cost of Rs. 3000 (Rs. 1500 loan and Rs. 1500 grant). The scheme involves a per unit subsidy of Rs. 1500 plus interest on loan besides administration and supervision charges to the Corporation. The scheme is proposed to be completed in 1980-81. During the Sixth Plan period (1980-85) the Corporation proposes to take up the following new subsidised low-cost housing schemes:

##### (a) *Construction of 10,000 Low Cost Houses at a Unit Cost of Rs. 3700.*

This scheme is proposed to be taken up with loan assistance from the HUDCO and grants from Government. Each housing unit will cost Rs. 3700 (Rs. 2000 as loan and Rs. 1700 as grant). The scheme involves a

per unit subsidy of Rs. 1700 plus interest on loan, besides administration and supervision charges to the Corporation. Government have accorded sanction for the implementation of the scheme. The Corporation proposes to construct the entire 10,000 houses during 1980-81.

##### (b) *Construction of One Lakh Subsidised Low Cost Houses at a Unit Cost of Rs. 5000.*

The scheme envisages construction of one lakh low cost houses during the period 1981-82 to 1984-85 at the rate 25,000 houses per year. Each house will cost Rs. 5000. (Rs. 2500 as loan and Rs. 2500 as grant). The scheme involves a per unit subsidy of Rs. 2500 plus interest on loan, besides administration and supervision charges to the Corporation.

##### (c) *Structural Improvements to Existing Houses*

The scheme envisages financial assistance for providing strong roofs and tiles to 16,500 existing houses at the rate of Rs. 2500 per house (Rs. 1500 as loan and Rs. 1000 as grant). The scheme involves a per unit subsidy of Rs. 1000 plus interest on loan, besides administration and supervision charges to the corporation. The plan outlay earmarked is for meeting the subsidy element of the above schemes.

#### 17. (a) *Tribal Sub-Plan*

The scheme is meant for providing houses to every tribal family in the sub-plan area in a phased manner. The outlay provided is for the construction of houses to tribal families in the sub-plan area.

##### (b) *Colonisation Scheme in Attappady*

The scheme envisages development of the Attappady Valley with infrastructure for the rehabilitation of the tribals. The outlay is meant for continuing the programme during the Sixth Plan period.

#### 18. *Provision of House Sites to Rural Workers*

Under this scheme developed plots in small and medium colonies provided with access roads, drainage, individual sanitary latrines, drinking water facilities etc. will be distributed to the landless families. Surplus land taken over by Government under the Land Reforms Act will also be utilised for the scheme. The scheme is to be implemented in selected Panchayats and 50 per cent of the house sites available in the Panchayat area is earmarked for allotment to landless agricultural workers belonging to Scheduled Castes and Scheduled Tribes. The outlay proposed is for continuing the scheme during the Sixth Plan period.

#### 19. *Police Housing Scheme*

According to the norms approved by Government, family quarters are to be constructed for 100 per cent of the staff of local police and special units as well as the staff of the Armed Police Battalions and Armed Reserves except the Head Constables and Police Constables. For Head Constables/Havildars and the Police Constables, Naiks/Lance Naiks of Armed Police Battalions and Armed Reserves, family quarters are to be provided for only 50 per cent of their respective strength. The balance 50 per cent are to be provided with barracks accommodation. The personnel covered



by the police housing scheme in the State during 1979-80 was only 44.6 per cent. This has to reach the level of 58.2 per cent. To reach this level the Finance Commission has awarded funds for police housing under non-plan. An Action Plan has been prepared to achieve this level by utilizing the funds under plan and non-plan sources. During the Sixth Plan period it is proposed to construct 1320 housing units and 1600 barracks for men. This will raise the coverage level to 57.7 per cent. The outlay is for the above purpose and for payment of annuity to the Housing Board for the 417 flats constructed by them for police personnel at Cochin.

## 20. Other Schemes

### (i) Loans to Government Servants

The outlay earmarked is meant for providing house construction advances to Government Servants.

### (ii) Financial Assistance to Government Servants/Police-men's Housing Cooperatives

The outlay is meant for providing share capital contribution, and loans to Government Servant's/

Policemen's housing cooperatives besides providing interest subsidy to reduce the rate of interest charged on the membr borrowers of these societies.

### (iii) Kerala School Teachers and Non-Teaching Staff's Welfare Society (Margin Money for Housing)

The plan outlay is meant for providing margin money to the society to enable the teachers and non-teaching staff to build their own houses with assistance from financial institutions like the HUDCO, LIC etc.

### (iv) Sponsored Research in Low cost Housing

At a time when cost of house building materials is soaring up, it is essential to develop new and cheap substitutes to reduce construction costs to the extent possible. The outlay provided in the Plan is for sponsored research in low cost housing using locally available materials to be undertaken by the Lal Bahadur Sastri Engineering Research and Consultancy Centres Trivandrum.

TABLE 5.48  
Housing—Scheme-wise Outlay

(Rs. in lakhs)

Sl.No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Housing Scheme for Industrial Workers	1.00	4.00	4.00	80.00	48.00	14.00	8.50
2.	Housing Scheme for Plantation Labour	6.00	..	9.00	49.00	29.50	10.00	6.00
3.	Low Income Group Housing Scheme	46.50	60.00	60.00	416.00	250.00	75.00	45.00
4.	Middle Income Group Housing Scheme	46.00	40.00	60.00	582.00	350.00	105.00	63.00
5.	Rental Housing Scheme for the employees of State Government and Local Bodies	35.00	40.00	40.00	600.00	300.00	60.00	30.00
6.	Construction of Quarters to Government Servants	27.00	35.00	35.00	275.00	135.00	40.00	20.00
<i>Slum Clearance and rehousing</i>								
7.	Slum Clearance and rehousing	..	..	..	200.00	100.00	50.00	30.00
8.	Upgradation of Marginal Settlements	10.00	9.00	9.00	50.00	30.00	10.00	6.00
9.	Kerala State Housing Board*	110.00	110.00	110.00	1000.00	300.00	200.00	60.00
<i>Minimum Needs Programmes</i>								
10.	Village Housing Project Scheme	25.00	20.00	39.00	342.00	210.00	62.00	38.00
11.	Settlement of Agricultural Labourers in Government Poramboke Lands	6.50	5.00	5.00	71.00	43.00	22.00	13.50
12.	Construction of Houses for Rural Workers	14.00	7.00	7.00	81.00	49.00	15.00	9.00
13.	Co-operative Housing Scheme for Economically Weaker Sections (Grant/Subsidy)	55.00	60.00	125.00	625.00	375.00	125.00	75.00
14.	Kerala Co-operative Housing Federation	20.00	20.00	20.00	243.00	146.00	38.00	23.00
15.	Housing Scheme in Kasargod	2.00	2.00	2.00	12.00	8.00	2.00	1.50
16.	Assistance to Kerala State Development Corporation for SC & ST for Housing Programme	50.00	75.00	75.00	450.00	270.00	90.00	54.00
17.	(a) Tribal Sub Plan	10.00	10.00	10.00	60.00	36.00	10.00	6.00
	(b) Colonisation Scheme in Attappady	4.00	6.00	13.72	34.00	21.00	6.00	4.00

\*Market borrowing

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
18. Provision of House Sites to Rural Workers		75.00	80.00	80.00	500.00	..	90.00	..
Total M.N.P.		261.50	285.00	376.72	2418.00	1158.00	460.00	224.00
19. Police Housing Scheme		50.00	50.00	50.00	400.00	210.00	75.00	39.00
20. <i>Other Schemes</i>								
(i) Loans to Government Servants		300.00	200.00	330.00	1650.00	990.00	350.00	210.00
(ii) Financial Assistance to Government Servants/ Policemen Housing Co-operatives		..	2.00	2.00	220.00	132.00	44.00	27.00
(iii) Kerala School Teachers and Non-Teaching Staff Welfare Society (Margin Money for Housing)		..	50.00	50.00	350.00	210.00	75.00	45.00
(iv) Sponsored Research in Low Cost Housing		5.00	1.00	1.00	10.00	..	2.00	..
Total—Housing		898.00	886.00	1136.75	8300.00	4242.50	1570.00	813.50

## Urban Development

The concept of planned urban development is of recent origin in the country. The major agencies concerned with urban development in the State are the Departments of Town Planning and Municipalities and the Kerala Urban Development Finance Corporation. The following are the schemes proposed under this head in the Sixth Plan.

### *Financial Assistance to Local Bodies for Town Improvement Works*

#### 1. *Remunerative Schemes—Kerala Urban Development Finance Corporation*

This Corporation, a Government owned private limited Company was formed with the main objective of ensuring the overall orderly development of cities and towns in the State. The Corporation provides financial assistance to urban local bodies in the State by way of loans and advances for the execution of their remunerative development programmes such as construction of bus stands, markets, shopping centres, commercial complexes, lodging houses etc. The outlay proposed is for giving loan finance to the Corporation by way of market borrowing.

#### 2. *Share Capital Contribution to the Kerala Urban Development Finance Corporation*

The debt-equity ratio of the Kerala Urban Development Finance Corporation at present is 101:2 and it is necessary to maintain a healthy debt equity ratio for this financing agency. Further the Board has already approved schemes worth Rs. 12 crores proposed by urban local bodies. The Corporation also has plans to take up economically viable joint venture urban development schemes in collaboration with the local bodies. The share capital base of the Corporation has to be raised to take up these activities. The provision is for this purpose.

#### 3. *Non-remunerative Town Improvement Scheme—Financial Assistance to Municipalities/Corporations*

The scheme envisages payment of financial assistance to Urban local bodies by way of loans and grants for their non-remunerative undertakings such as construction of roads, culverts, bridges, drains, office buildings, town halls, maternity and child welfare centres, libraries, parks, playgrounds, stadia etc.

### *Town and Regional Planning*

#### 4. *District Planning Unit*

At present there is no Town Planning Unit at Alleppey. The outlay proposed is for starting a District Planning Unit at Alleppey and for strengthening and continuing the District Planning Units at Trichur, Kottayam and Cannanore.

#### 5. *Master Plan for Agro-Industrial Centres, Urban Areas and Tourist Centres*

It is proposed to prepare Master Plans for the development of all Municipal towns in the State in a phased manner. Detailed proposals for priority development

areas also have to be worked out. So far, development plans have been prepared for 14 Municipal towns. It is proposed to prepare such development plans for the remaining towns in the State in a phased manner. The outlay provided is for continuing the on-going projects for Punalur, Shertallai, Palai and Kodungalloor and also for taking up new projects during Sixth Plan period.

#### 6. *Re-organisation of Headquarters Office and Subordinate Offices of the Town Planning Department*

It is proposed to reorganise the Headquarters office of the Chief Town Planner into eight functional divisions for technical and administrative efficiency. The provision made in the Plan is for the above reorganisation.

#### 7. *Traffic operation Plan for Major Urban Centres*

Urban Traffic and Transportation plans are at present being prepared for the cities of Trivandrum, Cochin and Calicut by the National Traffic Planning and Automation Centre (NATPAC) on contract basis. Similar plans for the major urban Centres like Quilon, Kottayam, Trichur, Alleppey, Palghat, Cannanore etc. have to be prepared. It is proposed to create an Urban Traffic and Transportation Planning Cell for the purpose in the Town Planning Department. The provision is made for the above purpose.

#### 8. *Creation of Planning and Development Authorities in District Headquarters and Urban Centres*

The outlay provided is for the creation of Planning and Development Authorities at Kottayam, Idukki, Quilon, Trichur, Malappuram etc. and also to provide financial assistance to the existing Development Authorities, Town Planning Trust etc. for meeting the establishment expenses of these Authorities in their early stages of existence.

#### 9. *Implementation of Development Plans in Urban Areas—Financial Assistance (grant-in-aid) to Planning and Development authorities for Implementation of Development Plans.*

The outlay provided is for giving financial assistance to Development Authorities, Town Planning Trusts and Local bodies for the implementation of development projects under sanctioned Town Planning Schemes. The provision would be mainly utilized for acquisition and development of land for the respective projects.

#### 10. *Urban Environmental Improvement Scheme*

The scheme envisages provision of financial assistance to the Development Authorities, Local bodies etc. for implementing urban environmental improvement schemes within their jurisdiction.

#### 11. *Preparation of a State Spatial Development Plan.*

It is proposed to prepare a comprehensive development plan, locating the important growth centres in the State and evolving policies for infrastructure development. The provision is for the creation of staff for taking up the project.

### 12. *Urban Development Including Land Acquisition*

Land forms the main component in the physical development of urban areas. The scheme therefore envisages financial assistance by way of grant-in-aid to Development Authorities, Local Bodies etc for bulk acquisition of cheap land in and around cities and towns in advance for the implementation of non-remunerative urban development schemes like construction of roads, playgrounds, parks etc.

### 13. *State Town and Country Planning Board*

A State Town and Country Planning Board has been constituted to guide control and monitor the formulation of the State Spatial development plan and to preserve the unique character, atmosphere and natural setting of monuments and other places of tourist interest in the state. The provision proposed is for the creation of a nucleus staff for the functioning of the Board.

### 14. *Creation of an Evaluation and Monitoring Unit*

The provision is for the creation of an Evaluation and Monitoring Cell in the Town Planning Department for evaluating and monitoring the preparation of Master Plans and Town Planning Schemes under the Five Year Plan and their implementation. The Cell has already been created during the year.

### 15. *Scheme for Development of Growth Centres*

This scheme aims at research studies for identifying growth centres for the creation of employment, provision of infrastructure facilities and other amenities in the backward districts of the State. A scheme for development of Kayamkulam in Alleppey district is under preparation.

### 16. *Training*

The scheme is meant for imparting training to the technical personnel of the Department of Town Planning in Town and Country Planning and also for in-service orientation.

### 17. *Improvement and Development of Small, Medium and Intermediate Towns—Centrally Sponsored with 50 percent Central Assistance—Matching Contribution from the State Government*

The scheme envisages provision of financial assistance for improvement of small and medium towns

in the State for which project reports have been prepared. The provision is to meet the State's share of this centrally sponsored scheme.

### 18. *Development of a New Town at Idukki*

It is proposed to develop a headquarters township at Idukki. A project report for the same has already been prepared. The provision is made for developing the township at Idukki.

### 19. *Redevelopment of Blighted spots in Major Urban Centres*

A scheme for the redevelopment of blighted spots occurring in the core areas in the major urban centres of the State is proposed to be taken up during the sixth plan period. The main problems in such affected areas are overcrowding, narrowness of streets and roads, mixed land uses, sub-standard buildings, under-utilization of valuable land etc. The scheme envisages detailed studies of the affected areas, preparation of detailed town planning schemes for such blighted areas and providing financial assistance for implementation of such schemes.

### 20. *Decennial Urban Land Use Survey coinciding with Census Operation*

The town and country planning organisation has requested all States to undertake decennial land use surveys of urban areas along with the census operations 1981. The provision is meant for the same.

### *Minimum Needs Programme*

### 21. *Slum Clearance/Improvement in Municipal/City Corporation Areas*

The slum improvement scheme aims at the eradication of slums in urban areas by improving the slums where the poor and low income group families live in sub-standard conditions by providing water supply, street lighting and communication facilities. A massive slum clearance/improvement programme covering the major slums in all Municipal Corporations and Towns of the State with a time bound programme to eradicate slums within a period of 10 years at a total cost of Rs. 20 crores has already been drawn up. The provision made in the Plan is for financial assistance by way of grant (50 per cent) and loans (50 per cent) to urban local bodies for implementing the above programme during the sixth Plan period.

TABLE 5.49

#### Urban Development—Scheme-wise Outlay

(Rs. in lakhs)

Sl.No.	Name of the Scheme/Project*	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated expenditure	Proposed outlay	Capital content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	

#### *Financial Assistance to local bodies*

#### *Remunerative Schemes:*

1. Kerala Urban Development Finance Corporation*	110.00	110.00	110.00	1000.00	600.00	200.00	120.00
2. Share Capital contribution to Kerala Urban Development Finance Corporation	..	..	..	50.00	39.00	10.00	6.00

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
3. Town Improvement Scheme Non-remunerative Schemes Financial Assistance to Municipalities/Corporations		15.00	10.00	20.00	200.00	132.00	50.00	33.00
<i>Town and Regional Planning:</i>								
4. District Planning Units of the Department		2.00	2.00	3.00	14.00	..	3.00	..
5. Master Plans for Agro-industrial Centres, Urban areas and Tourist Centres		2.00	1.60	4.00	12.00	..	2.00	..
6. Re-organisation of Head quarters unit and subordinate officers of the town Planning Department		3.00	3.00	3.00	20.00	..	4.00	..
<i>*Market borrowing</i>								
7. Traffic operation plan for Major Urban Centres		3.00	1.00	1.00	7.00	..	1.50	..
8. Creation of Planning and Development authorities in Selected Urban Areas		7.00	8.00	8.00	50.00	..	10.00	..
9. Implementation of Department plans in urban areas—Financial assistance to Planning and development authorities for implementing of development plans (Grant-in-aid),		40.00	10.00	10.00	169.00	112.00	30.00	20.00
10. Urban Environmental Improvement scheme		1.00	1.00	1.00	5.00	..	1.00	..
11. Preparation of a State spatial Development Plan		3.00	3.00	3.00	15.00	..	3.00	..
12. Urban Development including land acquisitions		10.00	3.00	3.00	55.00	..	8.00	..
13. State Town and country Planning Board		0.50	0.70	0.70	2.00	..	0.30	..
14. Creation of an evaluation and monitoring cell		0.50	0.70	0.70	6.00	..	1.00	..
15. Scheme for the development of Growth centres		..	1.50	1.50	10.00	..	2.00	..
16. Training (including apprenticeship training)		1.50	1.50	1.50	15.00	..	3.00	..
17. Improvement and Development of smaller towns (50% central assistance) Matching contribution from State Government		71.50	75.00	84.00	400.00	264.00	75.00	50.00
18. Development of new town at Idukki		..	..	..	20.00	..	4.00	..
19. Re-development of blighted spots in major urban countries		..	..	..	20.00	..	5.00	..
20. Decennial urban land use survey co-inciding with census operation		..	..	..	5.00	..	1.00	..
<i>Minimum Needs Programme:</i>								
<i>Environmental Improvement of Slum:</i>								
21. Slum Improvement in Municipal/City Corporation Areas		10.00	65.00	65.00	725.00	480.00	80.00	53.00
Total—Urban Development		280.00	297.00	319.40	2800.00	1618.00	493.80	282.00

## Information and Publicity

The success of development programmes in general depends very much on the active co-operation and participation of the people. This in turn can be achieved only with the help of a well equipped and dynamic publicity media. The Public Relations Department of the State has to be geared up for this positive role. The following are the schemes proposed under Information and Publicity:

### *Press Information Service*

#### 1. *Press Tours*

The object of the scheme is to conduct press tours to areas of developmental and cultural importance in the State and to ensure press coverage on topics of interest. Also inter-state exchange of journalists is arranged to project the image of the State and to ensure national integration.

#### 2. *Press Academy*

The Kerala Press Academy with its headquarters at Ernakulam is an autonomous body charged with the responsibility of building up infrastructure for the development of a healthy and responsive press in the State. The Academy has drawn up programmes for imparting in-service training, research, exhibitions and publication of books and periodicals on journalism and related matters. It also proposes to construct a building complex to accommodate its office, hostels for trainees and quarters in a three acre plot already acquired by the Academy. The provision is for giving financial assistance to the Academy for the above activities.

### *Field Publicity*

#### 3. *Strengthening of Field Publicity Organisation*

The outlay provided is for the construction of Rengasalas at Ernakulam, Calicut, Trichur, Kottayam and Cannanore, purchase of vehicles for the District Information offices at Trivandrum, Quilon, Trichur and Kottayam, and for the formation of two field publicity units one at Kasargode and another at New Delhi attached to the Information office there.

#### 4. *Exhibition*

The provision is meant for publicity regarding the development activities in the State through exhibitions. The Public Relations Department has to participate in the several Rural Exhibitions and All-India Exhibitions. The Department also proposes to participate in the International Trade Fair proposed to be held in 1981-82.

#### 5. *Community Listening Sets*

The scheme is intended for the supply of community listening sets free of cost/at subsidised rates for installation in Harijan predominant areas and tribal pockets and also to libraries, institutions, cosmopolitan hostels etc. serving scheduled castes and scheduled tribes.

### *Songs and Drama Services*

#### 6. *Cultural Affairs (Songs and Drama)*

The provision is for organising inter-state exchange of cultural troupes, giving State awards for drama and also for organising cultural programmes on special occasions.

#### 7. *Photo Publicity*

The provision is meant for providing vehicles to the photographic units attached to the Regional offices at Ernakulam and Calicut, purchase of photographic materials and also for photo coverage.

### *Advertising and Visual Publicity*

#### 8. *Display Advertisements*

Newspapers and periodicals are used as powerful media for publicity by issuing display advertisements on important welfare and development activities. The provision is for issuing display advertisements in popular dailies and other periodicals within and outside the State.

#### 9. *Advance Action for T. V. Coverage*

A Television Centre at Trivandrum is expected to be commissioned in 1983. Because of its audio-visual impact television can be most effectively utilized for influencing the public mind on socio-economic programmes. The provision is meant for the purchase of video cassettes for use of the District Information offices and the Directorate of Public Relations and also for making short films and documentaries on developmental and welfare measures to be telecast through television to be commissioned in 1983.

#### 10. *Information Centres*

The provision is meant for starting information centres at Malappuram, Idukki, Kasargode, Kattappana, and Wynad and also for re-equipping and expanding the existing centres.

#### 11. *Films*

The provision is for the production of documentaries, on developmental and welfare programmes of Government, on the life and contributions of important personalities and also for the purchase of children's films.

### *Publications*

#### 12. *Publicity Materials*

The scheme is meant for the production of publicity materials like posters, pamphlets, booklets, wall-calenders media hand books etc. on a massive scale and also for the publication of the Departmental journals 'Janapadham' and 'Kerala Calling'.

13. *Publication of Books*

The provision is proposed for getting books written on important cultural, educational and social topics by eminent authors and publishing them as priced ones.

*Research and Training in Mass Communication*14. *Training of Field Publicity Officers*

The scheme is for imparting training to officers of the Public Relations Department in mass communication, advertisements and exhibitions. The provision is for the above purpose.

*Others*15. *Welfare Fund for Journalists*

The provision is meant for Government's contribution to the Welfare fund for journalists.

16. *Welfare Fund for Cine Artistes*

The provision is proposed for Government's contribution to the Welfare fund for cine artistes

TABLE 5.50

**Information and Publicity Scheme-wise Outlay**

Sl.No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Press Information Service:</i>								
1.	Press Tours	0.67	0.30	0.50	5.00	..	0.50	..
2.	Press Academy	1.00	1.00	1.00	25.00	9.00	5.00	2.00
<i>Field Publicity</i>								
3.	Strengthening of Field Publicity Organisation	0.75	1.25	5.00	20.00	4.00	5.00	1.50
4.	Exhibition	17.43	1.00	2.00	36.00	..	28.00	..
5.	Community Listening Sets (Special Component Plan)	0.45	0.25	0.50	10.00	..	0.50	..
<i>Songs and Drama Service:</i>								
6.	Cultural Affairs (Songs and drama)	1.00	2.00	4.00	25.00	..	4.00	..
<i>Photo Services:</i>								
7.	Photo Publicity	1.00	1.50	2.00	10.00	..	2.00	..
<i>Advertising and Visual Publicity</i>								
8.	Display Advertisement	1.75	1.00	4.00	25.00	..	4.00	..
9.	Advance Action for T.V. Coverage	..	..	..	20.00	..	..	..
10.	Information Centres	0.19	0.25	0.25	2.00	..	1.00	..
11.	Films	2.00	1.50	5.00	30.00	..	5.00	..
<i>Publications</i>								
12.	Publicity Materials	0.90	0.75	1.50	15.00	..	1.45	..
13.	Publication of Books	0.10	0.10	0.25	2.00	..	0.25	..
<i>Research and Training in Mass Communication:</i>								
14.	Training of Field Publicity Officers	0.10	0.10	0.30	3.00	..	0.30	..
<i>Others:</i>								
15.	Welfare Fund for Journalists—Government Contribution	0.50	1.00	2.50	13.00	..	2.50	..
16.	Welfare Fund for Cine Artistes—Government Contribution	1.00	1.00	1.50	9.00	..	1.50	..
<b>Total—Information and Publicity</b>		<b>28.84</b>	<b>13.00</b>	<b>30.30</b>	<b>250.00</b>	<b>13.00</b>	<b>61.00</b>	<b>3.50</b>

## *Labour and Labour Welfare*

### 1. *Direction and Administration*

#### *Development of the Directorate of Training*

The number of institutions under the control of the Department of Industrial Training has increased substantially during recent years and more institutions are proposed to be started during the Sixth Plan. For the effective supervision and control of these institutions, the Department of Industrial Training has to be reorganised and strengthened with Regional offices and supporting staff. The provision is meant for the above purpose.

### 2. *Industrial Relations*

#### *Industrial Relations Machinery*

This scheme envisages streamlining and strengthening the Industrial Relations Machinery of the State Labour Department so as to enable it to anticipate labour problems and to take prompt preventive action to avert work stoppages. The scheme is proposed as a centrally sponsored one and the outlay is meant as State's share of the expenditure.

### 3. *Working conditions and Safety*

#### (i) *Machinery for the Enforcement of Agricultural Labourers Minimum Wages*

The scheme envisages setting up of a separate wing for the enforcement of the provisions of the Agricultural Labourers' Minimum Wages Act 1948 and the Kerala Agricultural Workers' Act, 1974. The Kerala Agricultural Workers' Act contains provisions for the appointment of inspectors, conciliation officers and Agricultural Tribunals for the enforcement of the Act and Rules. For the effective enforcement of the provisions contained in these Acts and Rules, the existing machinery consisting of one inspector for each District, notified as inspectors and conciliation officers under the Agricultural Workers Act, is quite inadequate. Considering the quantum and despatch of the work involved, it is proposed to adequately strengthen the machinery by creating a separate and full fledged wing for the purpose in the Department of Labour. The wing will consist of (a) Taluk level Inspectors of Agricultural Labour; (b) District level conciliation Officers; (c) three zonal Agricultural Tribunals; and (d) a Joint Labour Commissioner at the Headquarters as head of the Minimum Wages Implementation Machinery.

The Scheme is proposed as a centrally sponsored one. The outlay is meant as State's share of the expenditure.

#### (ii) *Industrial Hygiene Laboratory*

The provision is meant for establishing an Industrial Hygiene Laboratory in order to enable the State Director of Factories and Boilers to effectively enforce the provisions of the Factories Act for the protection of the health of the workers who are likely to be exposed to air pollutants in the working environment. Foreign equipments, technical guidance service and training facilities required for the project are expected under

the UNDP technical assistance scheme. The outlay proposed is towards cost of establishing the laboratory with appropriate accommodation, recruitment of necessary staff and procurement of certain indigenous equipments and materials.

### 4. *General Labour Welfare*

#### (i) *Labour Welfare Fund Board—State's Contribution*

The Labour Welfare Fund Board is a statutory body constituted for promoting the welfare of the workers coming under the coverage of the Labour Welfare Fund Act, 1975. Every employee coming under the coverage of the Act has to contribute fifty paise and every employer in respect of each such worker Re. 1 per half year to the Fund. Such contributions and matching contribution from Government constitute the resources of the Fund for its various welfare programmes for the benefit of the workers. The following are the welfare programmes proposed to be implemented by the Board during the Sixth Plan.

- (a) Award of scholarships for higher education to the children of workers;
- (b) Payment of compassionate relief to the dependants of employees dying in harness.
- (c) Provision of vocational training to children of workers
- (d) Holiday home for workers at Thekkady;
- (e) Financial assistance to libraries for workers;
- (f) Opening welfare centres for workers;
- (g) Provision of employment to dependants of workers.
- (h) Higher education facilities to workers; and
- (i) Study tours and visits for workers.

The outlay provided in the Plan is towards State's contribution to the Labour Welfare Fund for implementing the above labour welfare programmes.

#### (ii) *Welfare Fund for Cashew Workers*

It is proposed to constitute a Welfare Fund for workers employed the cashew industry. The provision is towards Government's contribution to the Fund.

#### (iii) *Welfare Fund for Coir Workers*

Steps are under way to constitute a Welfare Fund for the benefit of the workers engaged in the coir industry. The outlay is towards Government's contribution to the Fund.

#### (iv) *The Kerala Coconut, Palmyra and Arecanut Tree Climbers Welfare Scheme*

The scheme introduced in 1980 with retrospective effect from 1-4-1979 envisages payment of an ex-gratia financial assistance of Rs. 5,000 to an employee in the event of his permanent and total disablement as a result of an accident arising out of and in the course of his employment. In the case of his death as a result of the accident the ex-gratia financial assistance will be given to his dependants. The outlay is meant for the above purpose.



## 5. Social Security of Labour

### *Agricultural Workers Pension Scheme*

The scheme envisages payment of pension at the rate of Rs. 45 p.m. to agricultural workers who have completed sixty years of age and whose annual income does not exceed Rs. 1,500. Agricultural worker for the purpose of this scheme is defined as a person who in consideration of the wages payable to him by a land owner works or does any other agricultural operation in or in relation to the agricultural land of such land owner. The scheme applies to agricultural workers who are residing in Kerala for a continuous period of at least five years immediately preceding the date of application for pension. However, agricultural workers who are under the care of institutions maintained for the care of the old, sick or infirm and those in receipt of financial assistance under any of the welfare schemes instituted or aided by the Central or State Government or local authorities are not eligible for pension under the scheme.

The scheme was introduced with effect from 1-4-'80. Out of the 4.75 lakh applications received so far, 3.5 lakh workers are found eligible for pension. More eligible applications are expected. The total number of eligible applicants are likely to exceed 4 lakhs. The outlay proposed is for the payment of pension to agricultural workers under the scheme during the plan period.

## 6. Education and Training

### (i) *Strengthening of I.T.Is*

The Industrial Training Institutes in the State need substantial strengthening in order to ensure the quality of the instructions imparted in these Institutes. The I.T.Is., in general, are not equipped as per prescribed pattern. Most of the machines and equipments available are old and out moded. Modern machinery and equipments in adequate measure are not available for instructions in modern trades like electronics, refrigeration and air-conditioning mechanism radio and television mechanism, etc. Majority of the Industrial Training Institutes are lacking in basic amenities such as proper buildings, compound walls, playgrounds, auditoriums, libraries, hostels, staff quarters, etc. It is proposed to strengthen the I.T.Is. with these instructions and related facilities in a phased manner. The following programmes are proposed to be taken up during the Sixth Plan period;

- (a) Procurement of modern machinery and equipments for instructions in the I.T.Is;
- (b) Construction of institute buildings for the I.T.Is. Areacode, Calicut Kattappana, Pallickathode and the Women's I.T.I. Kazhakkuttom.
- (c) Construction of hostel buildings for the I.T.Is. Trivandrum, Kazhakkuttom, Attingal, Pallickathode, Kattappana, Areacode and Calicut.

(d) Construction of staff quarters for the I.T.Is. Trivandrum, Attingal, Kattappana, Pallickathode, Kazhakkuttam, Areacode and Calicut; and

(e) Providing proper library facilities in all the I.T.Is. and related instruction centres;

The outlay provided is for the above purposes:

### (ii) *New Industrial Training Institutes*

The Plan provision earmarked is meant for starting three new I.T.Is. during the Sixth Plan period.

### (iii) *Regional Vocational Training Institute for Women*

This Institute is proposed to be set up at Trivandrum in the Central Sector with SIDA aid. As per the agreement, the State Government has to provide the necessary land and building for the Institute. The other inputs will be provided by the Government of India and S.I.D.A. The outlay is for meeting the State Governments commitments for the project.

### (iv) *C.T.I. Training and Retraining*

In order to keep the instructional staff abreast of the modern trends in industrial processes and techniques, they have to be given periodical training. The provision is meant for deputing the instructors for training in the various C.T.I.s.

### (v) *Advanced Courses (Post I.T.I. Training)*

The Scheme envisages provision of intensive training for one or two years to selected I.T.I. certificate holders in selected trades to make them proficient enough to undertake work independently in modern trades. The provision is for introducing some modern trades in the I.T.Is. for such training.

### (vi) *Scheme for Scheduled Castes and Scheduled Tribes*

This scheme aims at offering intensive training to the scheduled caste and scheduled tribe candidates. There is acute scarcity of skilled persons belonging to scheduled castes and scheduled tribes especially in popular trades. The proposed outlay is for the introduction of intensive course in the I.T.I.s exclusively for scheduled castes and scheduled tribes.

### (vii) *Scheme for Giving Training to Trainees Sponsored by the Labour Welfare Fund Board.*

This is a scheme for giving training to the trainees sponsored by the Labour Welfare Fund Board. The entire amount will be reimbursed by the Labour Welfare Fund Board.

### (viii) *Advanced Vocational Training System*

The A.V.T.S. at Kalamassery is at present accommodated in the I.T.I. Kalamassery. A separate building and necessary indigenous machines and equipments will have to be provided to the system as part of the State Governments commitments to this UNDP/ILO aided project. The provision is for the above purpose.

(ix) *Apprenticeship Training Scheme*

In order to provide facilities for related instruction classes to apprentices, seven Related Instruction Centres have been started in the State. However, difficulties are being experienced in providing basic training facilities to apprentices in the newly designated trades such as printing, catering, chemical, tailoring, agricultural group of trades, etc., as these trades are not available in the I.T.Is. concerned. Further, Related Instruction Centres are not available at present in the Districts of Idukki, Palghat, Malappuram and Cannanore. It is, therefore, proposed to set up Basic Training Centres for printing, catering, chemical, and tailoring trades and also to establish four Related Instruction Centres, during the Sixth Plan period. The provision made in the Plan is for the above purposes and also for continuing the current programmes.

7. *Development of Institutions*

*Institute of Labour and Employment*

The provision made is towards financial assistance to the Institute for continuing its research and training programmes.

8. *Employment Services*

(i) *Establishment of Town/Taluk Employment Exchanges*

The rapid increase in the number of applicants in the Live Register of Employment Exchanges in the State is creating various administrative problems resulting in the deterioration of the quality of the services rendered by the Exchanges. The Employment Exchanges in the State are now located in urban centres i.e. at the district headquarters. For rendering better service to the rural population, decentralisation of the employment services through the opening of Employment Exchanges at taluk levels is necessary. It is proposed to open Taluk Employment Exchanges in all the taluks in the State except in 5 Taluks where Town Employment Exchanges having jurisdiction over the concerned taluk is now functioning. The proposal is to open 52 Taluk Employment Exchanges in a phased manner. The outlay provided is for opening 16 Taluk Employment Exchanges during the Sixth Plan period, besides continuing the Town Employment Exchanges already created.

(ii) *Strengthening of Vocational Guidance Programme*

The Vocational Guidance Units attached to 6 Employment Exchanges in the State have been strengthened during 1978-79 to cope with the heavy demands on the units from job seekers. It is necessary to strengthen the Vocational Guidance Units in the remaining 5 Employment Exchanges. The outlay is meant for strengthening the Vocational Guidance Units attached to 5 Employment Exchanges and also for continuance of the existing units.

(iii) *Strengthening of Employment Market Information Programme*

The Employment Market Information programme aims at getting every unemployed in the State registered in the Employment Exchanges and covering all employers under the Employment Market Information programme. For this, the Employment Market Information Units attached to the Employment Exchanges have to be strengthened. Units attached to

3 Employment Exchanges have been strengthened in 1978-79 and a 'peripatetic team for street surveys' has been sanctioned in 1979-80. In the Sixth Plan, it is proposed to strengthen the Employment Market Information Units in the remaining 8 Employment Exchanges. Of these, 2 units have already been strengthened in 1980-81. The Plan outlay is for strengthening the Employment Market Information units besides for continuance of the existing units.

(iv) *Establishment of Special Cells for SC/ST and Ex-Servicemen*

A special cell for scheduled castes/scheduled tribes and ex-servicemen is now functioning at Trivandrum to render special assistance to the applicants belonging to the scheduled castes/scheduled tribes and ex-servicemen categories. It is proposed to establish such units attached to the remaining 10 District Employment Exchanges in the State. The outlay is meant for the continuance and strengthening of the special cell for SC/ST and ex-servicemen at Trivandrum and also for establishing 10 such cells attached to the remaining 10 District Employment Exchanges.

(v) *Establishment of Coaching-cum-Guidance Centres for SC and ST.*

The outlay is meant for giving coaching/guidance for competitive tests/interviews to selected candidates belonging to SC. and ST. It is proposed to establish 11 such coaching-cum-guidance centres (one in each district) during the Sixth Plan period.

(vi) *Overseas Development and Employment Promotion Consultants Ltd.*

The Overseas Development and Employment Promotion Consultants Ltd., is a joint stock Company registered in November 1977 and fully-owned by the State Government with an authorised share capital of Rs. 100 lakhs. Its paid up share capital as on 1979-80 is Rs. 23.29 lakhs. The objectives of the company are promotion of employment in foreign countries, backing up of industrial ventures abroad, raising necessary financial resources from Indians working abroad for projects in India, promoting export of traditional and non-traditional goods from the country etc.

The company is licenced by the Central Ministry of Labour as an authorised recruiting agent and during the initial years of its existence it has concentrated in exploring employment opportunities in foreign countries for semi-skilled, skilled, technical and educated Keralites. It has successfully met the demands for personnel from several countries of West Asia and North Africa. The total number of personnel placed for overseas jobs by the company is about 950. The annual earnings of these personnel in foreign exchange is of the order of Rs. 3 crores, a major portion of which is remitted to India. However, the placement activities of the company for overseas employment is a welfare service and the company is precluded from charging any fees from the beneficiary employees as per terms of its licence. The service charges realised from the foreign employers are just nominal and even this will have to be dispensed with in order to make it sufficiently attractive for the foreign employers to recruit through the company. Therefore, the Government will have to pay service charges to the company for its placement services.

The company has an export licence and has made a beginning last year by exporting small quantities of tea and a few live plants to U.A.E. The company proposes to diversify its activities and take up the following ventures during the Sixth Plan period.

(a) Export of traditional and non-traditional products of Indian origin in a substantial way;

(b) Industrial ventures in Kerala with participation from overseas Indians in the form of share capital/public deposits/convertible debentures;

(c) Joint ventures abroad such as irrigation projects, agricultural farms, land development schemes etc. for which several enquiries have been received;

(d) Housing schemes in Kerala for overseas Keralites.

These are all bankable schemes and are capable of attracting investments from overseas Indians. However as promoters of these ventures, the company requires margin money from Government by way of share capital participation.

The outlay proposed is for payment of service charges to the company for its placement services and also for providing margin money to the company by way of share capital contribution for undertaking the above industrial ventures.

TABLE 5.51

**Labour and Labour Welfare—Scheme Outlay**

(Rs. lakhs)

Sl.No.	Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
			Approved outlay	Anticipated expenditure	Proposed outlay	Capital Content	Proposed outlay	Capital content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	<i>Direction and Administration</i>							
	Development of the Directorate of Training	1.00	2.00	2.00	12.00	..	2.00	..
2.	<i>Industrial Relations</i>							
	Industrial Relations Machinery (Centrally Sponsored) State Share	..	..	..	25.00	..	5.00	..
3.	<i>Working conditions &amp; safety</i>							
	(i) Machinery for Enforcement of Agricultural Labourers Minimum Wages	..	..	..	25.00	..	5.00	..
	(ii) Industrial Hygiene Laboratory	..	..	..	8.00	..	2.75	..
4.	<i>General Labour Welfare</i>							
	(i) Labour Welfare Fund Board	3.00	11.40	11.40	50.00	..	12.00	..
	(ii) Welfare Fund for Cashew Workers	0.10	0.20	0.20	10.00	..	5.00	..
	(iii) Welfare fund for Coir Workers	0.10	0.20	0.20	50.00	..	10.00	..
	(iv) Welfare scheme for Coconut Palmyrah and Arecanut Tree Climbers	0.10	25.20	25.20	50.00	..	11.00	..
5.	<i>Social Security of Labour</i>							
	Agricultural Workers Pension Scheme	..	..	..	10000.00	..	2000.00	..
6.	<i>Education and Training</i>							
	(i) Strengthening of I.T.I.	10.75	20.00	20.00	379.00	277.00	57.00	40.00
	(ii) New I.T.Is.	10.00*	15.00*	15.00*	80.00	40.00	15.00	8.00
	(iii) Regional Vocational Training Institute for Women	..	..	..	20.00	9.00	4.00	..
	(iv) C.T.I. Training & Retraining	..	1.00	1.00	10.00	..	2.00	..
	(v) Advanced Course (Post I.T.I. Training)	0.50	1.00	1.00	35.00	20.00	5.00	3.00
	(vi) Scheme for SC & ST	1.00	1.00	1.00	20.00	10.00	4.00	2.00
	(vii) Training scheme for candidates sponsored by the Labour Welfare Fund Board	2.61	1.00	1.00	5.00	..	1.00	..
	(viii) Advanced Vocational Training System	2.00	4.00	6.00	45.00	33.00	9.00	5.00
	(ix) Apprenticeship Training Scheme	2.00	2.00	2.00	30.00	12.00	6.00	2.00

\* Includes provision for women's I.T.I. Trivandrum.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>7</b> <i>Development of Institutions</i>								
Institute of Labour and Employment		1.00	1.00	1.00	5.00	..	1.00	..
<b>8.</b> <i>Employment Services</i>								
(i) Establishment of Town/Taluk Employment Exchanges		2.00	4.00	4.00	30.00	..	5.00	..
(ii) Strengthening of Vocational Guidance Programme		..	..	..	2.00	..	0.25	..
(iii) Strengthening of Employment Market Information Programme		..	..	..	5.00	..	1.00	..
(iv) Establishment of Special Cells for SC & ST and Ex-servicemen at District Headquarters		..	..	..	15.00	..	2.50	..
(v) Establishment of Coaching cum-Guidance Centres for SC & ST		..	..	..	15.00	..	2.25	..
(vi) Overseas Development and Employment Promotion Consultants Ltd.		6.29	8.00	8.00	50.00	..	10.00	..
<b>Total—Labour and Labour Welfare</b>		<b>54.16*</b>	<b>102.00*</b>	<b>100.00*</b>	<b>10977.00</b>	<b>401.00</b>	<b>2177.75</b>	<b>60.00</b>

\* The outlays include provision for the schemes (1) Rehabilitation of Repatriates and (2) Diversification of Trades.

Note:— The following schemes are transferred to Community Development Sector.

1. Employment assistance scheme
2. Employment generation scheme.

## **Welfare of Scheduled Castes, Scheduled Tribes and other Backward Classes**

### *Welfare of Scheduled Castes and other Backward Classes*

The scheduled caste population in Kerala has increased from 17.72 lakhs in 1971 to about 22 lakhs at present. During the earlier plan periods special attention was given to educational schemes, as a result of which Kerala has attained a good position in respect of literacy of scheduled castes. The enrolment ratio of scheduled castes in primary classes has almost reached the level of forward communities. But the drop-out rate is high among scheduled castes and scheduled tribes. During the Fifth Plan period the State Government has taken some specific measures for the rapid economic development of these sections of the society. A new strategy was evolved during the Fifth Plan period to ensure flow of benefits from the general sector to scheduled castes/scheduled tribes. Special Component Plans for 1979-80 and 1980-81 were prepared to ensure the proper utilisation of funds from the General Sector. Thus the sectoral outlay for Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes<sup>2</sup> is only to supplement the funds earmarked from the general sector. The Kerala State Development Corporation for Scheduled Castes registered during 1972 is undertaking programmes of economic uplift of scheduled castes and scheduled tribes. The Corporation has schemes like construction of houses, loan assistance for the purchase of agricultural land and starting industrial units etc.

Eventhough there has been substantial stepping up of investment in this sector the pace of progress is not in conformity with the investments. This section of the society has not been able to take full advantage of the various development schemes implemented for their benefit. In the Sixth Plan special emphasis will be given to those programmes which help the economic development of scheduled castes. The main objectives are reduction of poverty, provision of basic needs like housing, education and electricity, drinking water and, removal of unemployment. Funds earmarked for the Welfare of Scheduled Castes, Scheduled Tribes and other Backward Classes' sector are essentially to supplement those provided in general sectors. General sector programmes benefiting scheduled castes will be properly planned and implemented in such a way as to suit the needs of these sections. Better co-ordination with all departments implementing general sector schemes will be ensured so as to utilise fully the due share for scheduled castes. Family-oriented programmes will be taken up on a large scale to enable the maximum number of scheduled caste families to cross the poverty line within this Plan period. Scheduled caste cultivators and beneficiaries of land reform measures will be given adequate support to increase their agricultural production.

More adult education centres are expected to be located in the areas of Harijan concentration. Care will be taken to achieve higher enrolment and lower drop-out rate. The special development activities in the Harijan Welfare sector will be continued with added emphasis. Adequate financial support will be given to the Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes so that they can avail of more funds by way of institutional finance. Facilities

of modern medical care and child care system in Harijan hamlets will be improved. Drinking water wells and protected water supply will be provided to beneficiaries of housing schemes and in the Harijan hamlets. In order to improve the housing conditions of this community massive house building programmes will be taken.

The details of schemes proposed to be taken up during the Sixth plan period are given below:

### A. *Welfare of Scheduled Castes*

#### *Education*

#### 1. *Scholarships and Stipends*

This scheme aims at payment of lumpsum grant to scheduled caste students in pre-matric classes during the Sixth plan period.

#### 2. *Boarding Grants*

This scheme is for the payment of boarding grants at the rate of Rs. 85 per mensem to scheduled caste/scheduled tribes students residing in private subsidised hostels.

#### 3. *Special Incentive to Talented Students*

This plan scheme aims at encouraging the scheduled caste students achieve higher performance level in public examinations. The rates of monthly grants vary from Rs. 100 to Rs. 150 depending on the course of study. The eligibility for special incentive grant will be based on the marks obtained in the public examinations by the Harijan students in each district.

#### 4. *Cosmopolitan Hostels*

At present there are 16 cosmopolitan hostels run by the Harijan Welfare Department. The outlay provided in the Plan is for opening 5 new hostels during the Plan period.

#### 5. *Welfare Hostels*

This scheme is intended to provide hostel facilities to scheduled caste students pursuing pre-matric studies. There are at present 7 welfare hostels run by the Harijan Welfare Department. Twelve new welfare hostels will be started during the Sixth Plan period. The Plan outlay also includes provision for the construction of hostel buildings and tuition fees of the students.

#### 6. *Adult Education*

District and State level seminars will be conducted under this scheme. Study tours of scheduled castes will also be arranged under the scheme.

#### 7. *Girl's Hostel (State Share)*

This is a centrally sponsored scheme which is eligible for 50 per cent central assistance. The outlay provided in the plan is for the construction of buildings for girls' hostels.

#### 8. *Coaching and Allied Schemes*

This is also a centrally sponsored scheme having 50 per cent central assistance. The outlay is for starting one I.A.S. Coaching Centre and two new pre-examination training centres during the Plan period.

### 9. *Pre-matric Scholarship to Children of those engaged in Unclean Occupations*

The scheme is intended for the payment of scholarships and stipends for studying in pre-matric classes to children of those engaged in unclean occupations. The outlay made in the Plan is to meet the State share of this centrally sponsored scheme.

### 10. *Book Banks to Medical and Engineering Students*

This is a centrally sponsored scheme having 50 per cent central assistance. Book banks established in the medical and engineering colleges of the State will be continued during the Plan Period. Additional sets of books will also be purchased. It is proposed to extend this scheme to other professional colleges like Agriculture, Fisheries etc.

## *Economic Uplift*

### 1. *Subsidy to Technically Trained Hands*

This scheme is intended to assist the scheduled caste candidates who come out of the various training centres run by Harijan Welfare Department. The Plan provision made is to assist 1500 such trainees to set up independent production or service units.

### 2. *Colonisation*

The Plan provision is mainly intended for establishing five new colonies for settling selected harijan families and for providing assistance for agriculture, industries and allied activities of these families. All basic needs like housing, water supply, link roads, sanitation etc., will be provided. Settlers in the colonies will be selected from nearby localities and preference will be given to landless labourers. The provision also includes the requirements for the improvement works to the existing colonies. Nursery Schools will be started in the Colonies. Common buildings for the major colonies will also be constructed as centres for socio-cultural activities of the Harijans in the locality.

### 3. *Financial Assistance to Professionally Qualified Persons*

The scheme envisages giving financial assistance to professionally qualified harijans to start independent professional units.

### 4. *Production Centres*

The outlay earmarked in the Plan is for starting new production/training centres as well as introducing modern trades in the existing training centres. Additional show rooms for the display and sale of goods produced in training centres will also be started during the plan period.

### 5. *Shopping Centres for Harijans*

The scheme is meant for the construction of shopping centres at various developing centres of the State. These shopping centres will be let out on nominal rent to harijans for running commercial businesses. The Plan provision is for meeting the expenditure for the works already committed during 1960-81.

### 6. *Agricultural Schemes for Scheduled Castes*

This scheme is intended to give assistance to those harijans who are engaged in agriculture and allied activities. Assistance will be extended to the beneficiaries of Land Reforms Act. Assistance will be for land development, purchase of draught animals, purchase of milch cows, construction of cattle shed and for the supply of agricultural implements and other agricultural inputs. Persons having only house sites will be given financial assistance for raising Kitchen gardens, purchase of 5 coconut seedlings and for the purchase of milch cows and for the construction of cattle shed. The outlay provided is for giving assistance to 6000 families having agricultural land and to 6000 persons having only house sites.

### 7. *Starting of Poultry Units for Harijan Families*

It is proposed to start poultry units in 25,000 harijan families throughout the State. An amount of Rs. 1,000 will be paid as subsidy towards purchase of birds, construction of shed, purchase of feed etc.

### 8. *Financial Assistance to Harijan Families Engaged in Traditional Occupations*

This scheme aims at assisting harijans engaged in traditional occupations like mat-weaving, bamboo mat weaving, basket making, umbrella-making, tailoring etc. The outlay is for giving financial assistance to 30,000 families to procure raw materials and extending market facilities.

### 9. *Starting of Industrial Co-operative Societies for Trained Harijans*

This scheme is to organise 16 industrial co-operative societies during the plan period for those harijans trained in departmental training institutions, Industrial Training Institutes etc. The provision is for the purchase of land, construction of workshop, purchase of machinery and working capital to establish these societies.

### 10. *Special Family Oriented Package Programme for Scheduled Castes*

Majority of scheduled caste families come under the category of agricultural labourers. Persons belonging to this category will get employment only during agricultural seasons. Therefore dairying will provide part-time employment to these people and help to increase their income. As there are a large number of milk co-operative societies all over the State there will be no difficulty in the marketing of milk and milk products. It is proposed to provide 50,000 families with high breed milch cows at Rs. 2,500 each. These families will also be given grant at the rate of Rs. 1,000 for the construction of cattle shed and fodder grass cultivation.

The outlay provided under this scheme is also for giving assistance to 800 persons at the rate of Rs. 6,250 for the purchase of bullock cart and a pair of bullocks.

## *Health, Housing and Others*

### 1. *Inter-caste Marriage*

The outlay is to provide assistance at the rate of Rs. 2,000 to inter-caste married couples who are put to considerable socio-economic hardships.

## 2. *Housing*

This scheme is for giving grant to selected Harijans for construction of residential houses. The provision is for the construction of 12,500 houses during the Sixth Plan period.

## 3. *Wells*

Drinking water wells will be constructed in areas of Harijan concentration.

## 4. *Training in Midwifery*

The outlay proposed will be utilised for imparting training to Harijan girls in midwifery. In future this scheme will be implemented by the Department of Health Services.

## 5. (a) *Eradication of Untouchability*

The outlay is to continue the publicity activities undertaken by the Department for eradicating untouchability.

## (b) *Setting up of Machinery for the Untouchability*

This is a scheme having 50 per cent central assistance. The scheme envisages setting up of special police squads for the eradication of untouchability.

## 6. *Strengthening of Administrative and Executive Machinery*

A provision of Rs. 20 lakhs is made in the plan for strengthening the administrative and executive machinery of the Harijan Welfare Department for the effective implementation of the additional programmes proposed in the Plan.

## 7. *Balawadis-cum-Feeding Centres*

It is proposed to start 120 balawadies/nursery-cum feeding centres during the Plan period.

## 8. *Harijan Co-operatives*

The scheme envisages the revitalisation of existing Harijan co-operative societies and organisation of new societies. Only a token provision is made for this scheme as it is now implemented by the Co-operative Department and a proposal to transfer this to Harijan Welfare Department is under consideration of Government.

## 9. *Planning and Statistics Cell*

It is proposed to strengthen the Planning and Statistics Cell in the Department of Harijan Welfare to organise an efficient statistical system to cater to the planning and administrative needs of the Department. Necessary technical and administrative staff will be appointed in the Directorate and at the District Offices. The outlay earmarked also includes provision for the purchase of calculators for speedy processing of statistical data.

## 10. *Starting of Technological Institute*

It is proposed to start a technological institute for imparting employment oriented training to scheduled castes. The scheme will be implemented on the basis

of the detailed project report, now being prepared by the Director of Technical Education. A token provision of Rs. 5 lakhs is provided for this scheme in the Plan.

## 11. *Training of Scheduled Castes in Trades where there is Dearth of Hands among Registrants in employment exchanges*

The scheme is to organise specific training programmes for the benefit of Harijans in trades in which there is dearth of qualified hands among the registrants in the Employment Exchanges.

## B. *Welfare of Scheduled Tribes*

According to the socio-economic Survey 1977-78 conducted by the Bureau of Economics and Statistics the population of scheduled tribes is 2 lakhs. The Tribal Welfare Department which was formed on 1-7-1975 is the agency to implement the tribal welfare programmes in the State. The main occupations of tribal people are agriculture and collection of minor forest produce. Most of the tribal families possess land, but large extents of tribal land especially in the northern districts have passed into the hands of non-tribal settlers. Government have enacted two important legislations viz, the Kerala Scheduled Tribes (Restriction of Transfer of Lands and Restoration of Alienated Lands) Bill 1975 and the Bonded Labour System (Abolition) Bill, 1975. According to the former Act any transfer of property possessed by a member of scheduled tribe to persons other than a tribal effected on or after 1-1-1960 shall be deemed to be invalid and the former is entitled to restoration of possession of the land transferred by him. Tribal Sub Plans were prepared for areas having more than 50 per cent tribal population. Thirty seven per cent of tribal population has been covered by the Sub Plan. Hence the sectoral outlays are mainly intended to those living outside the Sub Plan areas.

It will be necessary to give the highest priority to build up inner strength of the tribal communities, so that they are able to take the benefit of the new programme. The basic task is to speed up the pace of development of the tribal areas and tribal communities, so that they are able to catch up with the remaining areas and communities. The entire tribal population whether living in areas of tribal concentration or outside will be covered by suitable development programmes. As far as sub plan programmes are concerned, inter-sectoral priorities for tribal sub plans will be determined with reference to their specific problems. Schemes will be implemented in such a way as to help elimination of exploitation. In the matter of tribal education 100 per cent coverage in enrolment will be achieved in the age group 6-14. The availability of fine drinking water to each tribal hamlet will be ensured. Mid-day meals will be provided to all children in the age-group 6-11 and supplementary feeding programmes for all under nourished in the age group 0-6, pregnant women and nursing mothers. Rural electrification programmes will support irrigation schemes, agricultural programmes, household industries and market centres. With these objectives in view an amount of Rs. 749.40 lakhs is provided in the Plan for Tribal Development. The scheme-wise details are given below:

*Administration*

The outlay proposed is for meeting the pay and allowances of the staff already sanctioned to strengthen the Tribal Development Department. The provision is also for the purchase of a vehicle at the headquarters.

*Education*1. *Tribal Hostels*

It is proposed to start 20 new hostels and for the continuance of 8 hostels already started. The amount required for the construction of hostel buildings will also be met from the provision provided under this scheme.

2. *Balavadies and Creches*

The scheme envisages starting of Balavadies in tribal concentrations in order to provide pre-primary education and for the supply of foods. The provision is for the continuance of the 12 Balavadies now existing and for starting 50 new Balavadies.

3. *Grant in aid to Voluntary Organisations*

The scheme is intended to encourage voluntary organisations to start residential basic schools and dispensaries in tribal areas. They will be given grants subject to a maximum of 50 per cent of their expenditure.

4. *Providing Library, Reading Materials and Radio to Hostels*

The scheme is for providing periodicals, books and radio to the hostels under the Tribal Welfare Department

5. *Special Coaching to Students*

It is proposed to appoint part-time teachers for giving special coaching to students in tribal hostels. The rate of honorarium to a teacher is Rs. 100 per month. The outlay is for continuing the system in the existing hostels and introducing the same in the new hostels.

6. *Training in Popular Trades*

Educated tribal youths will be trained in popular trades for the betterment of employment opportunities. The provision is for giving stipends to tribal trainees admitted in the Technological Institute proposed to be started at Ernakulam.

7. *Grants, Stipends etc. to Students in Tutorial Colleges*

The provision is to give stipends to tribal students who failed in the S.S.L.C. Examination to attend tutorial institutions and appear again for the examination. Stipends at the rate of Rs. 150 per month for four months, a lumpsum grant of Rs. 100 for the purchase of books, dress etc and tuition fee of Rs. 180 to the institution will be paid.

8. *Benefit Oriented Camps*

The scheme is intended to organise medical camps and campaigns in most backward settlements for health check-up and to make the tribals aware of their rights and privileges in the society. The Plan provision made is for organising 70 camps during the plan period.

9. *Girls' Hostels*

This is a centrally sponsored scheme with 50 per cent central assistance. The provision is to meet the State's share of the scheme.

10. *Research Training and Special Project*

This is also a centrally sponsored scheme having 50 per cent central assistance. The Kerala Institute for Research Training and Development Studies of Scheduled Castes and Scheduled Tribes is engaged in the conduct of studies relating to tribal and Harijan life and giving training to the officers working in tribal areas. An outlay of Rs. 75 lakhs is set apart in the Plan as State's share for the continuance of the Kerala Institute for Research Training and Development Studies of Scheduled Castes and Scheduled Tribes.

11. *Mini Theatre (Cultural Centres)*

The outlay earmarked is for the construction of cultural centres in tribal concentrations. It is proposed to construct five centres during the Sixth Plan period.

*Economic Uplift*1. *Colonisation*

The scheme is intended to establish colonies for rehabilitating tribal families in vested forests or other lands set apart for this purpose. The proposed outlay is for the completion of spill over works of colonies and for establishing 15 new colonies.

2. *Hamlet Development*

Schemes will be drawn up for the development of hamlets on the basis of the project report for each hamlet. The provision is for implementing schemes such as road development, land development, housing, water supply, electrification etc. Spill over works in the five hamlets and the schemes for the development of 60 new hamlets will be undertaken during the Sixth Plan period.

3. *Agriculture and Allied Sectors including grants for the Purchase of Agriculture Implements*

The programmes under this scheme include grant for development of land belonging to scheduled tribes, Minor Irrigation works, subsidy to long-term lending for agriculture, heifer distribution, purchase of pumpsets etc. A provision of Rs. 7 lakhs is required for this scheme during the Plan period.

4. *Production cum Training Centres*

The scheme is intended for the establishment of production cum-training centres by converting the existing training centres. An outlay of Rs. 18 lakhs is provided to establish 15 new tailoring centres, convert 3 training centres into production-cum-training centres and for the continuance of the existing tailoring centre at Nilambur.

5. *Employment to Tribal men in Industry.*

The scheme is intended for imparting training to tribal youth in tractor and power tiller operations, pumpset operations etc under Agro-industries Corporation and for apprenticeship in factories.



#### 6. *Andyodaya Programme*

The scheme is to provide assistance to extremely poor tribal families by giving goats and poultry. Each family will be supplied with 10 poultry birds 4 goats and one duck. Grant for the construction of goat shed and poultry house and for the purchase of feed will also be given. A provision of Rs. 20 lakhs is provided for this scheme in the Plan to give assistance to 1000 families.

#### 7. *Rehabilitation of Bonded Labourers*

This is a centrally sponsored scheme having 50 per cent central assistance. The provision is for meeting the State share of the scheme. The scheme is intended to establish colonies and collective farms for the rehabilitation of released tribal bonded labourers.

##### *Financial Assistance to Small Entrepreneurs*

The scheme is intended for giving financial assistance to tribal people to run tea shops, provision shops etc. up to a maximum of Rs. 2000. The provision is for giving assistance to 200 persons during the Sixth Plan period.

##### *Health, Housing and Others*

#### 1. *Housing*

The outlay is for the construction of 1500 houses at the rate of Rs. 8000 per house during the plan period.

#### 2. *Repairs of Existing Houses and Wells*

The scheme is intended for the repair and maintenance of the existing houses and wells of the tribal people. An outlay of Rs. 15 lakhs is provided for this purpose.

#### 3. *Engineering Wing*

In order to avoid the delay in the preparation of estimates for the construction and repair works under the tribal welfare schemes, it is proposed to appoint one Assistant Engineer each in the Regional Tribal Development Offices. The provision is for meeting the expenditure for the pay and allowances of these Engineers.

#### 4. *Planning and Statistics Cell*

The Scheme is intended to set up a statistical wing in the Tribal Welfare Department. The provision is for appointing technical staff at the head quarters office and at the regional offices.

#### 5. *Construction of Residential Quarters*

Residential accomodation of the employees working at the regional offices and at the field level is a serious problem. This scheme is intended to provide residential quarters to the employees working in the Department. An outlay of Rs. 60 lakhs is provided for this purpose.

#### C. *Welfare of Other Backward Classes*

##### 1. *Educational Concessions*

The scheme is intended to give educational concessions to the students of Other Backward Classes for matriculation studies.

##### 2. *Boarding Grants*

The scheme is to give grants to Other Backward Class students residing in subsidised hostels.

#### D. *Others*

##### 1. *Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes*

The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes registered in 1972 is undertaking programmes for the economic uplift of Scheduled Castes and Scheduled Tribes. An amount of Rs. 350 lakhs is provided in the Plan to give assistance to the Corporation by way of share capital contribution of the Government.

##### 2. *Commission to Enquire into the Socio Economic Conditions of Scheduled Castes/Scheduled Tribes*

The Plan outlay made is to meet the expenses of the Commission including that of the socio-economic survey now being conducted by the Commission.

TABLE 5.52

#### Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes—Scheme-wise Outlay

Schemes/Project	1979-80 Actuals	(Rs. in lakhs)					
		1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>A. Welfare of Scheduled Castes:</b>							
<i>Education</i>							
1. Scholarships and stipends	9.00	10.00	10.00	60.00	..	11.00	..
2. Boarding Grants	1.00	0.75	0.75	4.50	..	0.80	..
3. Special incentive to talented students	0.10	0.10	0.10	0.70	..	0.70	..
4. Cosmopolitan Hostels	3.00	5.30	5.30	29.00	17.00	6.35	3.50
5. Welfare Hostels	3.00	6.65	6.65	45.00	22.00	8.00	4.50

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
6. Adult Education		0.05	0.05	0.05	1.00	..	0.20	..
7. Girls Hostels (State share)		2.50	3.75	3.75	20.00	15.00	4.50	4.50
8. Coaching and allied Schemes (State share)		1.00	1.50	1.50	10.00	..	2.00	..
9. Pre-matric scholarship to children of those engaged in unclean occupation		0.25	0.50	0.50	2.50	..	0.50	..
10. Book Bank to Medical and Engineering students		1.50	1.00	1.00	5.00	..	1.00	..
<i>Economic Uplift</i>								
1. Subsidy to technically trained hands		1.00	1.00	1.00	7.00	..	1.60	..
2. (i) Colonisation		10.00	19.00	19.00	150.00	50.00	25.00	5.00
(ii) Common buildings to major colonies		..	5.00	5.00				
3. Financial assistance to professionally qualified persons		0.05	0.10	0.10	0.50	..	0.10	..
4. Production Centres		1.50	3.00	3.00	25.00	..	3.50	..
5. Shopping Centres for Harijans		..	100.00	100.00	100.00	..	..	..
6. Agricultural schemes for scheduled castes		..	132.00	132.00	450.00	..	60.00	..
7. Starting of poultry units for Harijan families		..	50.00	50.00	250.00	..	30.00	..
8. Financial assistance to Harijan families engaged in traditional occupation		..	100.00	100.00	300.00	..	40.00	..
9. Starting of Industrial Co-operative Societies, for Trained Harijans		..	30.00	30.00	100.00	..	20.00	..
10. Special family oriented Package programme for scheduled castes		..	..	..	1800.00	..	360.00	..
<i>Health, Housing and others</i>								
1. Intercaste marriage		3.00	3.00	3.00	20.00	..	4.00	..
2. Housing		35.00	25.00	25.00	375.00	..	75.00	..
Housing supplementary		..	50.00	50.00	..	..	..	..
3. Wells		1.00	1.00	1.00	23.50	..	3.00	..
4. Training in midwifery		0.50	1.50	1.50	1.50	..	..	..
5. (a) Eradication of untouchability		2.00	2.10	2.10	15.00	..	3.00	..
(b) Setting up of machinery for the untouchability (State share)		1.25	2.00	2.00	15.00	..	3.00	..
6. Strengthening of Administrative and executive machinery		1.00	3.00	3.00	20.00	..	3.00	..
7. Balawadi-cum-feeding Centres		7.00	8.40	8.40	60.00	..	10.00	..
8. Harijan Co-operatives		..	0.05	0.05	0.25	..	0.05	..
9. Planning and Statistics Cell		0.25	1.00	1.00	7.00	..	1.50	..
10. Starting of technological institute		1.00	1.00	1.00	5.00	..	1.00	..
11. Training of scheduled Castes in Trades where there is dearth of hands among registrants in employment exchanges		..	1.00	1.00	5.00	..	1.00	..
<b>Total A—Welfare of Scheduled Castes</b>		<b>85.95</b>	<b>568.75</b>	<b>568.75</b>	<b>3907.45</b>	<b>104.00</b>	<b>679.80</b>	<b>17.50</b>
<b>B: Welfare of Scheduled Tribes</b>								
Direction and Administration		3.00	6.75	6.75	25.00	..	9.65	..
<i>Education</i>								
1. Tribal hostels		5.00	6.00	6.00	80.00	40.00	9.00	4.50
2. Balavadies and Creches		1.00	1.00	1.00	12.00	..	2.00	..
3. Grant-in-aid to voluntary organisations		3.00	1.00	1.00	10.00	..	2.00	..

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
4. Providing Library reading materials and radios to hostels	0.25	0.30	0.30	0.90	0.90	0.15	0.15
5. Special coaching to students	0.75	0.75	0.75	3.75	..	0.75	..
6. Training in popular trades	0.25	0.25	0.25	4.25	..	1.00	..
7. Grants, Stipends etc., to Students in Tutorial colleges	1.00	0.75	0.75	9.00	..	2.00	..
8. Benefit oriented capms--Training Campaign	1.25	0.45	0.45	3.25	..	0.70	..
9. Girls hostels (State share)	..	2.75	2.75	20.00	20.00	3.00	3.00
10. Research Training and Special Project	8.37	9.00	9.00	75.00	..	12.00	..
11. Mini Theatres (cultural Centres)	..	..	..	12.00	12.00	1.00	1.00
<i>Economic Uplift</i>							
1. Colonisation	2.50	3.00	3.00	70.00	..	10.00	..
2. Hamlet development	7.00	9.00	9.00	150.00	..	15.00	..
3. Agriculture and allied sectors, including grants for the purchase of agriculture implements	3.00	3.00	3.00	7.00	..	1.00	..
4. Production- cum-training Centres	0.75	0.50	0.50	18.00	..	3.00	..
5. Employment to Tribal Men in Industry	0.25	0.25	0.25	2.25	..	0.50	..
6. Andyodaya Programmes	..	..	..	20.00	..	3.50	..
7. Rehabilitation of Bonded Labourers	5.00	..	..	20.00	..	3.00	..
8. Financial Assistance to Small Entrepreneurs	..	..	..	4.00	..	1.00	..
<i>Health, Housing and others</i>							
1. Housing	7.00	8.00	15.00	120.00	..	20.00	..
		7.00					
2. Repairs to the existing houses and wells of tribes	..	..	..	15.00	..	3.00	..
3. Engineering Wing	..	..	..	4.00	..	3.00	..
6. Planning and Statistical Cell	..	..	..	4.00	..	3.00	..
5. Construction of residential quarters	..	..	..	60.00	60.00	5.00	5.00
<b>Total B--Welfare of Scheduled Tribes</b>	<b>49.42</b>	<b>59.75</b>	<b>59.75</b>	<b>749.40</b>	<b>132.90</b>	<b>119.25</b>	<b>13.65</b>
<i>C. Welfare of Other Backward Classes</i>							
1. Educational Concession	3.05	4.00	4.00	25.00	..	4.50	..
2. Boarding grants	0.50	0.50	0.50	3.00	..	3.50	..
<b>Sub Total C--Welfare of Other Backward Classes</b>	<b>4.30*</b>	<b>4.50</b>	<b>4.50</b>	<b>28.00</b>	<b>..</b>	<b>5.00</b>	<b>..</b>
<i>D. Others</i>							
1. Kerala State Development Corporation for S.C./S.T.	25.00	30.00	30.00	350.00	350.00	55.00	55.00
2. Commission to enquire into the Socio Economic conditions of S.C./S.T.	3.00	1.00	7.00	10.00	..	2.00	..
<b>Total--Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes</b>	<b>167.67</b>	<b>664.004</b>	<b>670.00</b>	<b>5044.85</b>	<b>586.90</b>	<b>832.05</b>	<b>86.15</b>

\*The outlay includes provision made for the scheme "Preparation of Project Reports for the constitution of Development Corporation for Christian Converts from Scheduled Castes".

## Social Welfare

### 1. Direction and Administration

#### (i) Strengthening of Administration

In order to decentralise social welfare administration in the State, District Social Welfare Offices with nucleus staff were formed in 1979-80. The staff strength sanctioned to these offices is quite inadequate to cope with the heavy pressure of work in these offices. Further these offices will have to be provided with amenities such as telephones, vehicles etc. To avoid administrative delays and hardships to the beneficiaries of the various social welfare programmes, it is felt necessary to form Taluk Social Welfare Offices. The provision is for continuing the District Social Welfare Offices already formed, to strengthen these offices with additional staff, telephones and vehicles, and to form Taluk Welfare Offices.

#### (ii) Inspection Wing and Statistical Unit

The Plan provision made is for continuing the inspection wing and statistical units in the Department of Jails and to marginally strengthen them for streamlining the jail administration.

### 2. Education and Welfare of the Handicapped

#### (i) Opening of New Schools for the Handicapped

The welfare of the handicapped population depends very much on the extent to which educational and rehabilitational facilities are made available to them. In both these aspects the State has to do a lot. The educational and rehabilitation facilities now offered to them are quite inadequate in quantitative and qualitative terms. At present there are only 10 special schools in the State having standards upto VII for imparting education to the deaf and the blind. However, there is no school in the State for the education of the mentally retarded. Basic facilities for the education of the orthopaedically handicapped children at pre-primary level are also not provided. Similarly there is no training school in the State for training teachers for these special schools. The same is the case with regard to facilities for technical training of the handicapped. Considering these serious gaps in the existing facilities for the education, training and rehabilitation of the handicapped proposals have been included in the Sixth Plan for starting new institutions. Action for starting these institutions are proposed to be initiated during 1981-82, the International Year of the Handicapped. The following are the institutions proposed to be started.

#### (a) School for the Mentally Retarded

There is no school at present for the education of the mentally retarded excepting a very few number of custodial homes run by philanthropic organisations and the Social Welfare Department. The Plan provision made is for starting a school for the mentally retarded.

#### (b) School for the Partially Deaf

Of the 10 special schools in the State, facilities for the education of the deaf exist in 6 schools only. There is no facility for the deaf children to continue their education beyond Standard VII. The number of

applicants for admission to Deaf Schools is three times the seats available and as such a good number of children are denied educational opportunities. The Plan provision is for starting a new school for the education of the deaf upto the Xth standard.

#### (c) School for the Blind

There are 10 special schools in the State. However facilities for the education of the blind exist only in 8 schools (upto Standard VII.) These children can continue their studies in the secondary schools under the integrated scheme of education. However, in four districts in the State, there is no institution for the blind. It is proposed to start a new school for the blind in one of the unserved districts. The Plan provision is for the above purpose.

#### (d) Providing Basic Education Facilities for the Orthopaedically Handicapped at Pre-primary Level

This Plan scheme is meant for providing basic education facilities to the orthopaedically handicapped children at pre-primary level.

#### (e) Training School for Special Teachers

At present there is no training school in the State for training teachers for special schools. The provision is meant for starting a Training School for Special Teachers.

#### (f) Junior Technical School for the Deaf

The provision is for starting a Junior Technical School for the Deaf for imparting post-elementary vocational training.

#### (g) I T Is for the Handicapped

Experiments have proved that handicapped persons, if given proper training, can turn out really productive work. It is essential to start Vocational Training Centres for the physically handicapped to make them self-supporting. The training of the physically handicapped is possible only if separate training centres with specially trained staff and modified tools and equipments are provided. Therefore it is proposed to start on I.T.Is having these facilities exclusively for the physically handicapped persons. The Plan provision made is for this purpose.

#### (ii) Vocational Training Centres for the Handicapped

There are at present two Vocational Training Centres for the Handicapped, one each at Trivandrum and Calicut. These training centres are intended to give necessary training to the physically handicapped to develop their residual capacities. It is proposed to open 10 more such Vocational Training Centres for the Handicapped. The Plan provision is for this purpose.

#### (iii) Pre-matric Scholarships to the Handicapped

The Government of India is implementing a scheme for the payment of scholarships to handicapped persons undergoing education in Standard IX onwards. The scheme for pre-matric scholarship to the handicapped envisages payment of scholarships to handicapped children studying in Standards I to VIII. The Plan provision is for this purpose.

(iv) *Assistance to Mentally Retarded Children in Private Institutions*

There are a few institutions for the mentally retarded children in the private sector. These institutions collect fees for the admission of children. The scheme envisages payment of financial assistance to mentally retarded children from poor families admitted to such institutions. The provision is for continuing the scheme during the Sixth Plan period.

(v) *Production Centres for the Handicapped*

This is a scheme for the rehabilitation of the physically handicapped. The scheme envisages payment of financial assistance to voluntary organisations for running/starting production units where physically handicapped persons could be given employment. Non-recurring assistance upto Rs. 10,000 will be paid to voluntary organisations of standing for the purchase of equipments, machinery, tools etc., for the purpose. The provision is for continuing the scheme during the Plan period.

(vi) *Self Employment Programme for the Disabled*

The scheme envisages payment of financial assistance by way of grants (not exceeding Rs.600) to disabled persons for starting simple trades or business suited to their residual capacities. So far about 2000 handicapped persons have been given grants under this scheme. The provision is for continuing the scheme during the Plan period.

(vii) *Incentive to Private Employers for Employing the Handicapped*

Providing gainful employment (suited to their residual capacities) to the disabled to reduce their dependence on their respective families or society is the responsibility of a welfare State. Employment opportunities to the handicapped persons in industries and trade can be enhanced if suitable incentives are provided to the employers in the private sector. It is, therefore, proposed to take up a scheme in the Sixth Plan for the payment of graded wage subsidy for a minimum period of two years to the disabled persons employed in private industries and trade on a regular and permanent basis. The provision is for the above purpose.

(viii) *Co-operatives for the Disabled*

In the race for employment opportunities the handicapped persons are side-tracked. It is, therefore, proposed to encourage the handicapped persons to form industrial co-operatives of their own to provide employment to the members suited to their respective residual capacities. The provision is for giving share capital contribution and other concessions to the co-operative societies of the handicapped.

(ix) *Assistance for Orthotic and Prosthetic Aids*

The scheme envisages financial assistance to deserving handicapped persons for the purchase of aids like wheel chair, calipers, hearing aid, braille equipments etc. The provision is for continuing the scheme during the Sixth Plan period.

(x) *Home for the Handicapped (Aged)*

There are at present two Government run Homes for the care and protection of severely handicapped persons. It is proposed to open two more Homes for the Aged Disabled (the blind, the deaf and the orthopaedically handicapped) during the Sixth Plan period. The provision is meant for continuing the existing Homes and for starting two more Homes for the handicapped.

(xi) *Care Home for the Disabled Children*

The scheme envisages opening of two Care Homes for the orthopaedically disabled children. The Children admitted to these Care Homes will be given facilities for undergoing education in regular schools. The provision is meant for the above purpose.

(xii) *Home for Mentally Deficient Children*

At present there are two Government run Homes, one at Trivandrum and the other at Calicut, for giving care, protection and special training to the mentally deficient children. It is proposed to open one more Home for the mentally deficient children. The outlay proposed is for this purpose.

(xiii) *Institute for Research, Education, Training and Rehabilitation of the Mentally Retarded*

It is proposed to start an Institute for Research, Education, Training and Rehabilitation of the Mentally Retarded during the Sixth Plan period. Provision for Research and Development required for the health input is made under the scheme for the 'Institute of Mental Health' included under 'Medical and Public Health'.

(xiv) *Grant-in-Aid to Institutions for the Mentally Retarded*

Institutions for the education and training of the mentally retarded children run by voluntary organisations are facing financial difficulties due to the stoppage of recurring grants after two or three years under the central scheme of assistance for such institutions. Consequently these institutions are forced to charge heavy fees on the children often beyond the capacity of the helpless parents. It is, therefore, proposed to provide recurring grants to such institutions towards pay and allowances of staff etc. The provision is meant for the above purpose.

(xv) *Rehabilitation of Mental Patients*

A large number of recovered mental patients remain in mental hospitals without proper after-care service and disowned or abandoned by relatives. These unfortunate humans need care and protection in congenial atmosphere. It is, therefore, proposed to start a Care Home for recovered mental patients on an experimental basis. These unclaimed mental patients on discharge from hospitals will be admitted in the Care Home where their movements will be watched and family background analysed and follow up action taken to rehabilitate them. The plan provision made is for starting such a Care Home for recovered mental patients.

(xvii) *State Awards*

The scheme envisages institution of awards to the outstanding employers in the State who employ considerable number of physically handicapped persons and also to the most efficient handicapped employees with a view to encourage rehabilitation of the disabled. The provision is meant for this State sector scheme.

(xviii) *Preparation for the International Year of the Disabled*

The year 1981-82 is declared as the 'International Year of the Disabled' to focus public attention on the problems faced by the handicapped and to chalk out concrete programmes for their education, training and rehabilitation. As part of the observance of the International Year, it is proposed to produce two documentary films, one on the 'Physically Handicapped' and the other on the 'Mentally Retarded'. The films will be shot in Kerala locations and will be in Malayalam. These will be screened throughout the State in Cinema theatres and through mobile cinema vans to focus public attention on the problems of the handicapped.

Even today, precise data on the number of handicapped persons in the State are not available. Their number is roughly estimated at 1.25 lakhs. There is need for basic details regarding the handicapped persons in the State for drawing up programmes for their education, training and rehabilitation. The 1981 Census questionnaire lists the totally blind, crippled and dumb persons only which do not include information on the partially disabled. Therefore a separate enquiry to estimate the total number of handicapped persons of all degrees of handicap is necessary.

It is proposed to undertake such an enquiry in 1981-82 along with the N.S.S./or other regular household surveys conducted by the Bureau of Economics and Statistics, to estimate the total number of persons with functional physical handicaps, their demographic and economic particulars, educational status, skills etc.

The provision made in the Plan is for producing two documentary films on the handicapped and for conducting a survey to estimate the total number of handicapped persons in the State.

(xix) *Placement of the Handicapped*

This is a Centrally sponsored scheme with 50 per cent Central assistance. The scheme is for the implementation of the programme for the placement of the handicapped. The outlay is meant for the State's share of the scheme.

(xx) *Handicapped Persons Welfare Corporation*

The Kerala Handicapped Persons Welfare Corporation was formed in 1979-80. The Corporation has drawn up 6 projects for implementation during 1980-85. These projects are capable of providing continuing employment to 5955 handicapped persons. The total cost of the projects comes to Rs. 350.5 lakhs. The Corporation proposes to raise an amount of Rs. 253.5 lakhs by way of institutional finance and participation by the beneficiaries. The balance amount of Rs. 97 lakhs is to be contributed by State Government by way of share capital contribution (Rs. 92 lakhs) and assistance for administrative expenses (Rs. 5 lakhs) in the initial stages of its operation. Details of the cost estimates are as shown in Table 5.53.

TABLE 5.53

(Amount in Rs. lakhs)

Name of Project	Total Cost	Institutional Finance	Contribution from Beneficiaries	Contribution by Government	No. of Units (Nos.)	Continuing Employment (Nos)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Department Store and Mobile Mini Sales Van	19.50	12.00	..	7.50	3	60
2. Retail Sales Cabins	80.00	60.00	..	20.00	2000	2000
3. Artificial Limb Fitting Centres	36.00	24.00	..	12.00	9	2700
4. Training-cum-Production Centres	50.00	35.00	..	15.00	5	1100
5. Three Wheeler Sales Cabins	70.00	52.50	7.00	10.50	500	500
6. Multipurpose Workshop for Deaf and Dumb	90.00	63.00	..	27.00	9	2250
Administration Charges	5.00	..	..	5.00	..	..
<b>Total</b>	<b>350.50</b>	<b>246.50</b>	<b>7.00</b>	<b>97.00</b>	<b>2526</b>	<b>8610</b>

The project-wise details are given below

(a) *Department Store and Mobile Mini Sales Van*

The Corporation proposes to open three units in three District headquarters. One such unit has already started functioning in Trivandrum (at Kesavadasapuram) from 24-4-1980.

(b) *Retail Sales Cabins*

These are readymade prefabricated cabins measuring 5'x5' prefabricated with M.S. angles and wooden reapers and fibre glass roof to have maximum life. The manufacturing cost of one such cabin is estimated to be Rs. 4000 inclusive of installation charges, of which 75 per cent will be collected as donation while 25 per cent will be met by the Corporation. The donor will be permitted to utilise the outer space of the cabin for his own advertisement. The location of the cabin will be so selected to have maximum sales. Only deserving handicapped persons will be eligible for the cabins. The allottee will be free to sell any consumer products in the cabin. The Corporation will act as mediator to obtain working capital loan from Nationalised Banks the guarantee for which will be produced by the beneficiary. The cabin will remain as the property of the Corporation until decided otherwise.

(c) *Artificial Limb Fitting Centre*

Considering the difficulties now experienced by the handicapped persons in securing artificial limbs and other equipments the Corporation proposes to establish Artificial Limb Fitting Centres in nine District headquarters. (The Corporation has been appointed as an authorised selling agents for ALIMCO products in Kerala). Each centre will be able to handle 25 cases in a month. The establishment of such centres will be a boon to the handicapped persons who are longing for aids and equipments.

(d) *Training-cum-Production Centres*

The scheme is designed to provide employment opportunities to the unemployed handicapped persons. Different categories of small scale industrial units will be brought under one roof. The trades include, radio assembling and servicing, television board and wire assembling, cutting and tailoring, printing and binding, handicrafts, plastic novelties, plastic moulding etc. Including the instructors and trainees, not less than 1100 handicapped persons will be benefited by this scheme. As the trades selected are suited to the different categories of handicapped persons, the industrial unit will function as a multi-category centre.

(e) *Three Wheeler Sales Cabins*

This scheme is intending for providing self employment opportunity to such of the handicapped persons who are capable of riding three wheeler cycles with the cabin. The cabins are intended for stocking and selling fast moving consumer articles. The holder of the cycle should have the aptitude to stock and sell articles door to door. One such three wheeler is estimated to cost Rs. 1400. The scheme is so designed that 10 per cent of the cost will have to be met by the beneficiary and 75 per cent can be secured as loan from

the Banks. The balance 15 per cent will be met by the Corporation from the share capital contribution of Government.

(f) *Multi Purpose Workshop for Deaf and Dumb*

This Scheme is designed mainly for the benefit of the deaf and dumb. However, other categories will also be benefited. Initial expenditure towards the cost of machinery has to be met by the Corporation. It is expected that financial assistance in the form of repayable loan will be available from the Banks, to the extent of 70 per cent of the total investment. With the help of experienced supervisors and instructors, the selected handicapped persons will be given training and the trainees will continue to work as skilled workers in the respective units. These units are designed as productive and self supporting.

The provision made is towards share capital contribution to the Corporation (Rs. 92 lakhs) and financial assistance to the Corporation to meet its administrative expenses (Rs. 5 lakhs) in its initial stages.

(xx) *Formation of a Board for the Education and Rehabilitation of the Handicapped*

The provision is meant for the formation of a 'Board for the Education and Rehabilitation of the Handicapped' and for the proper co-ordination and direction of the various programmes for the welfare of handicapped persons.

4. *Family and Child Welfare*

A. *Child Welfare*

(i) *Day Care Centres*

The scheme envisages starting of Day Care Centres in areas predominantly occupied by fishermen, coir workers etc. where there are no voluntary organisations to start and run such centres. The provision is for continuing the existing centres and to start 30 more centres during the Plan period.

(ii) *Creches in the Unorganised Sector*

In the unorganised sectors like agriculture, coir industry, quarrying, fishing etc. creche facilities are not available. The scheme envisages payment of financial assistance to voluntary organisations for starting creches for the benefit of the children (up to 3 years) of women workers belonging to these categories. In 1979-80, financial assistance was given for 237 such creches. The provision is for continuing assistance for these creches besides starting 300 more creches during the Sixth Plan period.

(iii) *Grant-in-aid to Voluntary Organisations for pre-school Education*

In the Fifth Plan a scheme for payment of non-recurring financial assistance to selected nursery schools run by voluntary organisations for the purchase of teaching aids, toys, furniture etc. was introduced. The maximum assistance payable per nursery school is R. 1000. The provision is for continuing the scheme during the Sixth Plan period.

(iv) (a) *Integrated Child Development Services (ICDS)*

The State Sector ICDS project is a continuing scheme. So far four ICDS projects have been started in the State sector. The ICDS provides a package of services to children and women. The outlay is for continuing the projects already in existence and to start 25 new projects during the Sixth Plan period. This will be in addition to the projects sanctioned by Government of India under the 100 per cent Centrally sponsored scheme.

(b) *Construction of Anganawadis*

The Anganawadi is the focal point for the delivery of the package of services under the ICDS. It is proposed to construct small buildings for a few Model Anganawadis availing of Government of India assistance and contribution from the community. The provision made is for providing State Government's share for the construction of Anganawadi buildings.

(v) *Composite programme for Women and Pre-school Children*

At present there are 1951 Balawadis run by Mahila Samajams. It is proposed to start 1000 more Balawadis during the Sixth Plan period. The provision is intended for giving grants to Mahila Samajams towards honorarium to Balawadi teachers.

B. *Women's Welfare*(i) *Training to Women in Distress for Rehabilitation*

The scheme envisages payment of financial assistance to poor women for undergoing vocational training in commercial subjects. The outlay is meant for continuing the scheme during the Sixth Plan period.

(ii) *Grant for Self-Employment of Women*

The scheme is meant for giving financial assistance by way of grants to poor destitute women to start small trade or business. During 1979-80 grants were given to about 2,000 women. The Plan provision is for continuing the scheme during the Sixth Plan period.

(iii) *Grants to Women's Organisation for Socio-Economic Programmes*

A scheme for the payment of non-recurring grant-in-aid to voluntary organisations of women for undertaking viable projects which could give employment to women has been introduced in 1980-81. The assistance is given on the basis of matching contribution by the organisation concerned. The maximum assistance payable to an organisation is Rs. 5,000. The provision is intended for continuing the scheme throughout the Plan period.

(iv) *Working Women's Hostels*

Smaller towns like Taluk-Headquarters etc., are not eligible for grant-in-aid assistance for construction of working women's hostels under the Government of India scheme. Therefore, it is proposed to give non-recurring financial assistance to voluntary organisations for the construction of working women's hostels in small towns like the Taluk Headquarters towns. The

maximum assistance payable to one hostel is 90 per cent of the total cost of construction or Rs. 5 lakhs whichever is less. The scheme has been introduced in 1980-81. The provision is for continuing the scheme during the Sixth Plan period.

5. *Welfare of Poor and Destitutes*(i) *Abalamandirs*

There are 10 Abalamandirs in the State for the care and protection of the poor and destitute women. It is necessary to provide some vocation to the inmates of these institutions. Small work-units like tailoring has been introduced successfully in some of these institutions. During the Plan period it is proposed to introduce such trades in all the remaining institutions.

There is no social welfare institution in the newly formed Idukki District. It is proposed to open an Abalamandiram in Idukki District.

The Plan provision is for introducing small trades for the benefit of the inmates of the existing Abalamandirs and also for opening an Abalamandir in Idukki District.

(ii) *Shelter for Waifs and Strays*

At present there is only one Home (at Alleppey) under Government for the care and protection of orphans and destitute children. It is proposed to open 3 more Homes for the care and protection of orphan children during the Plan period. The outlay is for the same.

(iii) *Grant-in-aid to Local-Bodies for Running Beggar Homes*

Beggary is a social evil. It is necessary to provide care and protection to those who resort to beggary under force of circumstances. It is therefore proposed to give grant-in-aid to Local Bodies coming forward to run Beggar Homes to combat this evil.

(iv) *Grant-in-aid to Orphanages*

This is a Centrally sponsored scheme with 50 per cent Central assistance for giving grant-in-aid to orphanages run by voluntary organisations. The provision is towards State's share for continuing the scheme.

(v) *Home for the Aged*

The scheme envisages opening of 'Homes for the Aged' for the care and protection of persons of age 55 and above of poor circumstances and without near and dear ones to look after. It is proposed to open three such Homes during the Plan period. The provision is for the above purpose.

(vi) *Buildings to Social Welfare Institutions*

The Social Welfare Institutions like the Abalamandirs, Rescue Homes etc. are at present housed in rented buildings. These buildings are not secure enough to maintain the inmates. It is necessary to provide suitable buildings to these institutions in a phased manner. The outlay provided is for the construction of buildings for two institutions during the Sixth Plan period.



(vii) *Adoption and Foster-care Service*

The scheme envisages introduction of the programme of adoption and foster care service in the State for the benefit of orphan children. Orphan children will be placed under foster parents and will be given a maintenance allowance of Rs. 75 p.m. Foster care supervision will be introduced to look after the well being of the children placed under foster parents. The outlay is intended for implementing the scheme during the Sixth Plan period.

6. *Correctional Homes*(i) *Borstal Schools*

There is only one Borstal School in the State at Cananore. This is for boys and there is no Borstal School for girls. At present a few girls committed under the Borstal School Act are kept in the female blocks attached to the Central Prison, Calicut. Therefore, Government have sanctioned in June 1980 a separate Borstal School at Calicut for girls. Modifications to an existing building in the premises of the Government Children's Home and Special School, Calicut, is nearing completion for housing the Borstal School for girls. It is also proposed to start one more Borstal School for boys at Ernakulam. The outlay proposed is towards expenses for the staff and maintenance of the inmates of the Borstal School for girls, expansion of industrial activities and strengthening of staff in the Borstal Schools and for starting a new Borstal School for boys at Ernakulam, including construction of buildings.

(ii) *Balamandirs*

The outlay proposed is for continuing the vocational training centres already started in the Government Children's Homes and Special Schools, purchase of required machinery for the units already sanctioned and marginally strengthening the instruction staff for the centres.

(iii) *Implementation of Children's Act*

According to the provisions of the Children's Act and Rules Government have the obligation to maintain as many Children's Homes and Special Schools as necessary for providing facilities for boarding, lodging and training the children coming under the provisions of the Act; and also to maintain Observation Homes for children standing trial in Children's Courts. The Inspector General of Prisons is the Chief Inspector of these institutions. Children's Courts have already been constituted and efforts are under way for conducting sittings of Children's Courts. A special unit has been created in the Office of the Inspector General of Prisons for the implementation of the Children's Act.

The following are the proposals for implementation during the Sixth Plan period:

- (a) Starting an Observation Home for Girls at Trivandrum;
- (b) Starting an Observation Home for Girls at Ernakulam;

- (c) Starting a Children's Home for Boys at Cannanore;
- (d) Starting a Children's Home and Special School for Girls at Ernakulam;
- (e) Strengthening the Staff in the Existing Five Government Children's Homes and Special Schools; and
- (f) Strengthening the Regional Inspectorate in the Headquarters for Implementation of the Children's Act.

The provision made is for the above purposes and also for constructing buildings for the Observation Homes and Government Children's Homes and Special Schools.

(iv) *Vocational Training to Prisoners for Rehabilitation*

The prisoners are to be given vocational training while in prison for their rehabilitation on release. The facilities provided by the industrial units in the prisons at present are quite inadequate. Therefore it is proposed to modernise the industrial units in three major prisons in the State and also to start a new industrial unit in the District Jail, Calicut. These units are designed to function as production-cum-training centres. The following are the proposals for implementation during the Sixth Plan period.

- (a) to start an aluminium vessels factory and to purchase wood working machines and tools for the carpentry unit in the Central Prison, Trivandrum;
- (b) to start a Carpentry Unit at the Central Prison, Viiyur;
- (c) to start a Hosiery Unit with an additional building to house the workshop at the Central Prison, Cannanore; and
- (d) to start a Handloom Weaving Unit with a small building to house the unit at the District Jail, Calicut.

The outlay proposed is for the above purposes.

(v) *Welfare Officers in Prison*

According to the recommendations of the Central Advisory Board on correctional Services, Welfare Officers have to be appointed in the prisons at the rate of one for every 200 prisoners to serve as councellers to the prisoners. The provision proposed is for continuing the existing posts, upgradation of a few posts and for the creation of additional posts.

(vi) *Recreation Centres for Prisoners*

Recreation facilities for the prisoners are a must for the creation of a healthy mental outlook among the convicts. It is therefore proposed to start recreation centres for the benefit of prisoners in the three major prisons and the open prison. A convenient room in each block of the prison will be set apart for this purpose and indoor games provided to well-behaved prisoners. The outlay is provided for the purpose.

## 7. Probation and After Care Service

## (i) Strengthening of Probation Services

The probation service is provided under the provisions of the Probation of Offenders Act. To attend to the work of Juvenile Courts constituted under the Children's Act, 11 posts of probation officers are to be additionally provided. The Regional Assistant Directors of the Social Welfare Department are now working as Regional Probation Officers also. It is necessary to provide adequate ministerial staff support

to these officers for the work connected with the probation service. The outlay provided is intended for continuing the existing probation service and for strengthening it.

## (ii) After Care Services

This scheme envisages provision of financial assistance to ex-convicts, and probationers who have served at least 2/3 portion of their supervision period with good record. The assistance is given for their rehabilitation in some small trades or business. The outlay is provided for the above purpose.

TABLE 5.54

## Social Welfare—Schemewise Outlay

(Rs. in lakhs)

Name of the Scheme/Project*	1979-80 Actual	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>1. Direction and Administration</b>							
(i) Strengthening of Administration	0.75	2.00	3.00	35.00	5.00	6.00	..
(ii) Inspection Wing and Statistical unit	0.75	0.80	0.80	5.45	..	1.00	..
<b>2. Education &amp; Welfare of the handicapped</b>							
(i) Opening of New Schools for the Handicapped							
(a) School for the Mentally Retarded	..	1.00	1.00	10.00	3.00	2.00	..
(b) School for the Partially Deaf	..	..	..	10.00	3.00	2.00	..
(c) School for the Blind	..	..	..	10.00	3.00	2.00	..
(d) Providing Basic Education Facilities for the Orthopedically Handicapped at Pre-Primary Level	..	..	..	10.00	..	2.00	..
(e) Training School for Special Teachers	..	..	..	15.00	6.00	2.75	..
(f) Junior Technical School for the Deaf (Post Elementary Vocational Course)	..	..	..	25.00	8.00	5.00	..
(g) I.T.I for the Handicapped	..	..	..	50.00	28.00	10.00	5.00
(ii) Vocational Training Centres for the Disabled	..	..	..	5.60	..	1.00	..
(iii) Pre-matric Scholarships to the Handicapped	1.50	3.80	5.40	33.00	..	6.00	..
(iv) Assistance to Mentally Retarded Children in Private Institutions	0.15	0.10	0.10	1.50	..	0.15	..
(v) Production Centres for the Handicapped	0.40	0.10	0.10	2.00	1.80	0.30	0.27
(vi) Self Employment Programme for the Disabled	2.00	1.00	1.00	5.30	..	1.00	..
(vii) Incentives to Private Employers for Employing the Handicapped	..	..	..	5.00	..	0.60	..
(viii) Co-operatives for the Disabled	..	..	..	2.00	..	0.25	..
(ix) Assistance for Orthotic & Prosthetic Aids	1.00	2.00	2.00	11.00	..	2.25	..
(x) Home for the Handicapped (aged)	2.50	4.00	4.00	15.00	..	5.00	..
(xi) Care Home for Disabled Children	..	..	..	8.50	..	1.75	..
(xii) Home for Mentally Deficient Children	2.20	0.001	0.001	4.20	..	0.70	..

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(xiii) Institute for Research, Education, Training and Rehabilitation of the Mentally Retarded	..	..	..	..	50.00	20.00	2.00	..
(xiv) Grant-in-aid to Institutions for Mentally Retarded	..	..	..	..	5.00	..	0.75	..
(xv) Rehabilitation of Mental Patients	..	..	..	..	7.00	..	1.25	..
(xvi) State Awards	..	..	..	..	1.00	..	0.25	..
(xvii) Preparations for the International year of the Disabled	..	..	..	..	3.00	..	2.00	..
(xviii) Placement of the Handicapped (Centrally Sponsored--State share)	1.25	1.50	1.50	1.50	7.50	..	1.50	..
(xix) Handicapped Persons' Development Corporation	5.00	5.00	22.00	22.00	97.00	50.00	17.00	9.00
(xx) Formation of a Board for the Education and Rehabilitation of the Handicapped	..	..	..	..	5.00	..	1.00	..
Sub-total—3	16.00	18.50	37.10	37.10	398.60	122.80	70.50	14.27
<b>4. Family and Child Welfare:</b>								
<b>A. Child Welfare</b>								
(i) Day Care Centres	1.25	1.00	1.00	1.00	9.00	..	1.50	..
(ii) Creches in the unorganised Sector	1.00	1.00	1.00	1.00	16.50	..	3.30	..
(iii) Grant in aid to Voluntary Organisations for Pre-school Education (Nursery School)	1.00	2.00	2.00	2.00	22.00	..	3.90	..
(iv) (a) Integrated Child Development Service scheme (State sector)	5.00	23.00	23.00	23.00	140.00	..	24.00	..
(b) Construction of Anganawadis	0.25	0.25	0.25	0.25	1.25	0.75	0.30	0.18
(v) Composite programme for Women and Pre-School Children	5.00	5.00	5.00	5.00	30.00	..	6.00	..
<b>B. Women's Welfare</b>								
(i) Training to women in Distress for Rehabilitation	0.25	1.00	1.00	1.00	5.00	..	1.00	..
(ii) Grant for self Employment to Women	1.25	1.25	1.25	1.25	25.00	..	5.00	..
(iii) Grants to Women's Organisations for Socio-economic Programmes for Women	..	5.00	5.00	5.00	9.00	4.50	2.00	1.00
(iv) Working Women's Hostels in Areas not Covered by the Central Sector Scheme	..	50.00	80.00	80.00	175.00	105.00	30.00	18.00
Sub Total—4	15.00	89.50	119.50	119.50	432.75	105.75	77.00	18.18
<b>5. Welfare of Poor and Destitutes</b>								
(i) Abalamandirs	0.75	0.40	0.40	0.40	4.20	1.00	0.70	0.20
(ii) Shelter for Waifs and Strays	..	..	..	..	19.00	6.00	2.00	..
(iii) Grant-in-aid to Local Bodies for Running Beggar Homes	..	..	..	..	14.00	..	2.00	..
(iv) Grant-in-aid to Orphanages (Centrally Sponsored--State's Share)	2.50	2.00	2.00	2.00	10.00	..	2.20	..
(v) Home for the Aged	..	..	..	..	10.00	..	2.40	..
(vi) Buildings to Social Welfare Institutions	..	1.00	1.00	1.00	10.00	6.00	2.00	1.20
(vii) Adoption and Foster-Care Service	..	..	..	..	5.00	..	0.90	..
Sub-Total—5	3.25	3.40	3.40	3.40	72.20	13.00	12.00	1.40

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>6. Correctional Homes</b>							
(i) Borstal Schools	..	..	..	37.50	18.00	30.50	18.00
(ii) Balamandirs	1.00	..	..	8.50	..	0.75	..
(iii) Implementation of Children's Act	1.00	..	..	48.00	12.00	6.50	1.80
(iv) Vocational Training to Prisoners for Rehabilitation	..	..	..	35.00	20.00	7.00	4.00
(v) Welfare Officers in Prison	0.66	0.70	0.70	6.00	..	1.00	..
(vi) Recreation Centres for Prisoners	..	..	..	6.00	..	0.25	..
<b>Sub-Total 6</b>	<b>2.66</b>	<b>0.70</b>	<b>0.70</b>	<b>141.00</b>	<b>50.00</b>	<b>46.00</b>	<b>23.80</b>
<b>7. Probation and After care Service</b>							
(i) Strengthening of Probation Services	0.50	0.55	0.55	14.00	..	2.35	..
(ii) Assistance for After Care Programme	0.25	0.10	0.10	1.00	..	0.15	..
<b>Sub-Total -7</b>	<b>0.75</b>	<b>0.65*</b>	<b>0.65</b>	<b>15.00</b>	<b>..</b>	<b>2.50</b>	<b>..</b>
<b>Total---Social Welfare</b>	<b>₹ 39.16*</b>	<b>115.55**</b>	<b>165.15</b>	<b>1100.00</b>	<b>296.55</b>	<b>215.00</b>	<b>57.65</b>

\* As per budget estimates, the sum is Rs. 40.66 lakhs. The difference is contributed by the two schemes (i) Preparation for IY aid (2) Kshemakendras, discontinued since 1979-80. Expenditure for these two schemes in 1979-80 was Rs. 1.50 lakhs.

\*\* The budget estimates for social welfare in 1980-81 is Rs. 121.55 lakhs. The difference is contributed by the transfer of the scheme Rehabilitation of bonded labour (Rs. 7.00 lakhs) to the Welfare of backward class sector and the inclusion of the scheme opening of new school for mentally retarded (Rs. 1.00 lakhs) of the General Education sector in the Social Welfare sector.

## Nutrition

The following are the schemes included for implementation under Nutrition during the Sixth Plan.

### 1. Direction and Administration

#### (i) Nutrition Bureau

The provision is for meeting the expenditure required for continuing the Nutrition Bureau.

#### (ii) Office Building for the Nutrition Division

The provision is meant for constructing a separate building with modern facilities to accommodate the nutrition laboratory, nutrition museum, nutrition kitchen, class room, library, audio-visual room, office, store, garage etc., of the Nutrition Division of the Health Services Department.

#### (ii) Monitoring and Supervision Wing

The Social Welfare Department is the implementing agency for the: (i) Special Nutrition Programme; (ii) World Food Programme; and (iii) Urban Segment of the One Meal-a-Day Programme. For the effective implementation, supervision and monitoring of these nutrition programmes a 'Monitoring and Supervision Wing' is necessary. The provision is meant for the creation of such a wing in the Social Welfare Department.

### 2. Programmes for Pre-School Children

#### (i) (a) Special Nutrition Programme

Under this programme malnourished pre-school children and nursing and expectant mothers are given supplementary nutrition containing 5 to 6 grams of proteins and 250 to 300 calories per day. This type of supplementary nutrition is given for 300 days in a year in selected centres to selected beneficiaries. The per capita per day cost for food is 25 paise. It is proposed to raise this rate to account for the increase in the cost of food materials. The nutrition component of I.C.D.S. Programme is also met from the outlay for special nutrition. The outlay provided is for the above programme.

#### (b) Tribal Sub Plan

The provision is for the implementation of the Special Nutrition programme for the benefit of the pre-school children and nursing and expectant mothers of the Tribal Sub Plan areas.

#### (ii) Health Based Nutrition Programme

Empirical studies carried out by the ICMR reveal that 72 per cent of the pre-school children in the State are malnourished. Malnutrition in children leads to high mortality and morbidity and poses a major public health problem to be tackled with a sense of urgency. In this task the Nutrition Division of the State Department of Health Services has a major role to play. The activities of the health based nutrition programme for pre-school children and nursing and expectant mothers consist of supervision and evaluation of the nutrition

programmes in the State, nutrition education study of nutritional status of various segments of the population, immunisation and health check-up and implementation of the CARE feeding component of the health based nutrition programme. To cope with the heavy demand for health inputs by various nutrition programmes in operation in the State, it is necessary to strengthen the Nutrition Division of the Department of Health Services. The expansion programmes include—

- (a) Strengthening the Nutrition Laboratory with equipments and chemicals for biochemical investigation and research and appointment of a Laboratory Technician;
- (b) Strengthening the Nutrition Kicher;
- (c) Building up a Nutrition Library.
- (d) Production of nutrition education materials such as pamphlets, display boards, slides, charts etc., and appointment of a Health Education Officer and an Artist-cum-Photographer for preparation of the same;
- (e) Providing an additional vehicle and a driver for utilising the second film unit already provided for nutrition education;
- (f) Organising a Nutrition Museum for nutrition education;
- (g) Supply of anthropometric rod and weighing machines to the 1800 sub-centre for recording the growth charts of the beneficiary children.
- (h) Appointing Nutritionists at the district level to supervise and co-ordinate the nutrition programmes;
- (i) Appointing a Medical Officer and a statistician for the proper conduct of the diet surveys;
- (j) Conducting a study on the impact of supplementary feeding by locally available food stuffs on pre-school children in tribal areas and providing such food stuffs as supplementary food.;
- (k) Upgradation of the post of Assistant Director (Nutrition); and
- (l) Strengthening the ministerial wing of the Nutrition Division to cope with the additional workload.

The outlay provided is for the above expansion programmes and also for continuing the on-going programmes.

#### (iii) Applied Nutrition Programme

The Applied Nutrition Programme is aimed at improving the nutrition status of the mal-nourished segments of the population through nutrition education and thereby creating favourable conditions for the production of nutrition-rich food stuffs, their scientific preservation and use. In addition to these a supplementary demonstration feeding programme is conducted through out the ANP and non-ANP Blocks in

selected centres for the benefit of selected undernourished pre-school children and nursing and expectant mothers. In the feeding centres in ANP Blocks, in addition to cooked CARE food, fruits, vegetables and eggs received from the production component of the Applied Nutrition Programme are also served to the beneficiaries. There are at present over 6300 such feeding centres under the programme benefiting 6.89 lakh undernourished persons.

By 1979-80, 95 Blocks were brought under the Applied Nutrition Programme. During the Sixth Plan period, it is proposed to bring 25 more Blocks under the programmes at the rate of 5 Blocks every year.

Another important programme under the Applied Nutrition Programme is the production of Kerala Indigenous Food (KIF) as supplement and substitute to the CARE food materials. However the present production capacity is only 10 tonnes per month. It is proposed to increase the production capacity of KIF to 40 tonnes per month during the Plan period.

The outlay proposed is for continuing the existing programmes and also for the expansion programmes mentioned above.

(iv) *Special Feeding Programme—One Meal a Day Programme*

Government have decided during the International Year of the Child (1979) that every undernourished pre-school child in the State should be covered by the supplementary nutrition programmes. As part of this decision, the 'One Meal a Day' programme was introduced in 1979-80. In 1979-80, the programme covered 5.0 lakh pre-school children through 5000 feeding centres. Feeding is undertaken for 25 days a month. Feeding materials for 12 to 13 days are supplied by the CARE and for the remaining days of the month, pulses and rice are supplied, charged under the provision for this programme. The outlay proposed is for continuing the programme during the Sixth Plan period.

### 3. Programme for School Children

#### (i) School Mid-Day Meals Programme

The scheme is intended for giving mid-day meals free of cost to all poor and needy children studying in all the L.P. Schools and L.P. Section of U.P. and High Schools (Standard I to IV) in the State with food materials supplied by the CARE. The programme covered 20.6 lakh beneficiaries in 8990 schools during 1979-80. The number of beneficiaries in 1980-81 is 21.5 lakhs in 9100 schools. From 1980-81 the preparation charges of food have been revised and raised by 33  $\frac{1}{3}$  per cent due to the increase in cost of condiments and fuel. Further a new scheme for the supply of rice gruel with a side dish of tapioca pulses to the vulnerable sections of school children especially in areas where there is large-scale concentration of scheduled tribe children has been introduced from January 1980. Tribal children studying in 40 selected Primary Schools in the three educational sub-districts of Manantoddy, Sultan Battery and Vythiri have been brought under the scheme. In addition to the above the following special projects are proposed to be implemented during the Sixth Plan period with financial assistance from CARE. The expenditure on these projects will be shared by the State Government and the CARE in the ratio of 55:45 as laid down by Government of India.

- Construction of a Central godown of 10,000 tonnes capacity at Cochin for storing CARE food intended for the nutrition programmes.
- Construction of district godowns of 1000 tonnes capacity for storing CARE food.
- Supply of cooking utensils to schools for use of the school mid-day meals programme
- Provision of science laboratory and Nutrition Education Mobile Van.

The outlay provided in the Plan is for continuing the existing programmes and also for the additional programmes mentioned above.

TABLE 5.55  
Nutrition—Scheme-wise Outlay

Name of the Scheme/Project	1979-80 Actuals	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(4)	(6)	(7)	(8)
1. Direction and Administration							
(i) Nutrition Bureau	0.25	0.50	0.50	6.00	..	0.50	..
(ii) Office building for Nutrition Division of the Health Services Department	..	..	..	10.00	6.00	5.00	3.00
(iii) Monitoring and Supervision	..	..	..	16.00	..	2.50	..
2. Programmes for the Pre-school Children							
(i) (a) Special Nutrition Programme	54.00	82.00	89.50	630.00	..	125.00	..
(b) Tribal Sub-Plan	4.00	4.00	4.50	30.00	..	5.00	..
(ii) Health based Nutrition Programme	10.00	10.00	10.90	70.00	..	13.00	..
(iii) Applied Nutrition Programme	24.75	67.00	67.00	385.00	..	75.00	..
(iv) Special Feeding Programme— One Meal a day Programme	200.00	160.00	160.00	800.00	..	160.00	..
3. Programme for School Children							
(i) School mid-day Meals Programme	15.00	16.50	16.50	178.00	30.00	32.00	7.00
<b>Total—Nutrition</b>	<b>308.00</b>	<b>340.00</b>	<b>348.90</b>	<b>2125.00</b>	<b>36.00</b>	<b>418.00</b>	<b>10.00</b>

## 5.7 Economic Services.

### *General Economic Services*

#### 1. *Planning Board*

The State Planning Board is the main agency in the State to formulate long term, medium term and annual development plans for the effective utilisation of the natural, human and material resources in the State. Various studies are being undertaken to assess the resources of the State as also to appraise the progress of the State's economy in order to formulate development plans. The Planning Board has also undertaken several studies on the different aspects of the State's economy including the financial and material resources potential with a view to help the planning process. The Board also conducts evaluation studies on the implementation of plan schemes and recommends such adjustments needed for the improvement of Plan implementation.

In order to decentralise the planning process comprehensive district development plans are proposed to be formulated. With this object in view, District Planning Offices have been set up in all the districts in 1978-79. District Planning Officers with supporting nucleus staff have been posted and the work relating to the preparation of district development plans is in progress. The State Planning Board as well as the District Planning Units has to be suitably strengthened to carry out effectively the task of State-level and District level planning. The following schemes are proposed under this head.

#### (i) *Strengthening of the State Planning Board and District Planning Units*

At present the State Planning Board has the following eight Divisions.

- (a) Agriculture and Allied Services Division
- (b) Project Division
- (c) Transport and Industries Division
- (d) Social Services Division.
- (e) District Planning Division.
- (f) Evaluation Division
- (g) Economic Division.
- (h) Data Bank.

In order to give greater attention for the industrial development of the State and to take up studies relating to the industrial sector it is proposed to establish a separate Industries Planning Division. The Social Services Division at present, attends to the work relating to the formulation of plans under all the sub heads coming under 'Social and Community Services like general education, technical education, art and culture, scientific services and research, medical, public health and sanitation, sewerage and water supply, housing, urban development, information and publicity, labour and labour welfare, welfare of scheduled castes, scheduled tribes and other backward classes, social welfare, nutrition etc. This Division has to be suitably bifurcated and strengthened.

The co-ordination and integration of the local level plans with the Annual Plans of the State involves considerable addition to the workload of all Divisions in the Planning Board in general and that of the District Planning Division in particular. It is therefore proposed to strengthen the District Planning Division of the Planning Board.

The Planning Board, at present, prepares the annual plans and medium term plans for five years. In addition to this, it is proposed to formulate perspective plan for 15 or 20 years for charting the longer term course of development of the economy as a whole taking demographic and other socio-economic factors also into account. The perspective plan would provide the frame-work for investment decisions in long gestation projects for which a five year horizon is inadequate. A Perspective Planning Division is proposed to be created in the Planning Board to take up the task of preparing a perspective plan for the State.

The District Planning Units have been provided with only nucleus staff at present. In order to formulate realistic and comprehensive district plans after properly assessing the local resources technical personnel in the field of engineering, agronomy etc. are proposed to be inducted in the District Planning Units.

The State Planning Board is, at present, functioning in three different rented buildings causing much inconvenience to its proper functioning. It is therefore, proposed to construct a building for the State Planning Board.

The outlay provided is for reorganisation and strengthening of the State Planning Board strengthening of District Planning Units and construction of building for the State Planning Board.

#### (ii) *Electronic Data Processing Unit in the Planning Board*

At present there is a Data Bank Unit functioning in the planning Board. This Unit has no facility for storing time series data. The Planning Commission has suggested that data banks with computer facility should be organised in all States as part of the State Planning Machinery. This would enable the Data Bank to store the relevant details of important plan schemes and to continuously watch the progress of implementation of schemes. The Monitoring Unit in the State can also make use of the computer facility and ensure timely completion of plan schemes and projects.

With the introduction of district level planning a large number of competing projects will emanate from different districts. In order to assess the acceptability of the different projects and to arrange them according to priority within the time limit, the computer facility can be made use of. Another area in which there is dearth of data is the quantity and value of inter-state movement of goods through roads in the State. All vehicles that pass through the check-posts in the State furnish declaration forms containing details of goods transported. The proposed computer can

be made use of in processing the declaration forms collected through various chek-posts in the State. This would help to obtain data on goods traffic movement by road on a regular basis. The Directorate of Economics and statistics can also make use of proposed computer facility in processing the data collected through various surveys and in storing time series data at district, taluk and village level.

The outlay proposed is for installation of a computer and peripheral equipments, punching machines and storage equipments including magnetic tapes and drums/discs etc.

(iii) *Preparation of Area Plans and Conduct of Surveys and Studies*

It is proposed to associate consultancy organisations and specialised professional agencies like the Agricultural Refinance and Development Corporation for the preparation of comprehensive development plans for selected Blocks in the State. Further, in certain sectors and areas in-depth studies are required to be conducted before formulating meaningful development plans, for which it is proposed to make use of specialised consultancy services. It is also proposed to conduct the following surveys and studies.

(a) *Survey on Basic Amenities in Rural Areas*

A survey to assess the level of development of each village under general education, health, drinking water supply and sewerage, rural electrification, rural roads, etc., was conducted in the State in 1973. The results of this survey formed the basis of the Minimum Needs Programme in the Fifth Five Year Plan. A similar survey to assess the social and economic infrastructure facilities available in each village is proposed to be conducted in the State. As it is proposed to provide computer facility in the Planning Board, processing of the results of the survey can be expedited. The results of the survey would facilitate scientific planning under rural roads, education, health, drinking water supply, rural electrification etc.

(b) *Study on Investments in the Economy*

No systematic study has been conducted to estimate the magnitude of investments by different sectors of the economy. Magnitudes of investments by organised sectors are available in various published records, though with a considerable time-lag, but the estimates of investments of the unorganised sector and especially of the household sector are not available anywhere. Unless realistic magnitudes of investments are available, inter-sectoral flow of investments and rate of growth of the economy cannot be assessed. Magnitudes of investments under different sectors would also enable to estimate sectoral capital-output ratios. Firm estimates of the quantum of investments under different sectors is very essential for future planning.

The magnitude of investments by Central and State Governments is available in budgetary documents and other published records. Investments by the Corporate sector, both public and private, can be obtained through their reports and also through

their controlling Government Departments. The quantum of investments by the household sector can be estimated only by conducting a survey. It is, therefore, proposed to conduct a sample survey to estimate the quantum of investments by the unorganised sector in the State.

(c) *Study on Estimation of Co-efficient of Labour in Major Projects*

Generation of additional employment facilities is one of the major objectives of planned economic development. Estimation of the quantum of employment generated as a result of the implementation of plan schemes is very essential for projection of employment potential of future plan programmes. For working out reliable estimates of co-efficients of labour, actual employment generated in different projects in various sectors is essential. The quantum of employment generated for a fixed amount of investment varies from project to project and from place to place. It also varies in different time periods as a result of price fluctuations.

In order to work out reliable norms of employment generation under various schemes in different sectors, data on employment generated-full-time and part-time separately-for construction as well as maintenance phase under different activities, have to be collected. For carrying out such in-depth studies, projects under major irrigation, minor irrigation, roads and bridges, soil conservation programmes, hydro-electric projects, building construction programme etc. have to be selected and the quantum of actual employment generated assessed. It is, therefore, proposed to conduct a detailed survey to estimate the employment content of projects under different heads of development spread over all the districts of the State.

The outlay provided is for payment of consultation fee for preparation of area plans, conducting of special studies etc., and for the conduct of the above surveys.

(iv) *Plan Publicity*

At present Plan Publicity work is carried out by issuing publicity materials relating to plan programmes and by taking part in exhibitions and seminars. The Publicity Unit in the Planning Board is proposed to be strengthened. This unit will be equipped with a cine projector and few model films on developmental activities to propagate the importance of scientific planning and plan implementation. It is also proposed to participate in mini exhibitions on planning organised by planning forums of the educational institutions. The outlay proposed is for implementing the above programmes.

*Purchase of vehicles for District Planning Offices*

The Officers of the District Planning Units have to perform tours in the districts for on-the-spot studies and for conducting discussions with block and panchayat level functionaries. For the efficient functioning of the District Planning Units they will be provided with vehicles. The outlay proposed is for the purpose.



## 2. Monitoring and Evaluation

### (i) *Strengthening of the Evaluation Division in the Planning Board*

The Evaluation Division of the State Planning Board proposes to conduct detailed studies, inter-alia, on the following programmes, during the Sixth Plan period.

- (a) Selected major Irrigation Projects—to assess direct and indirect benefits.
- (b) Evaluation study of Minor Irrigation Works.
- (c) Evaluation study of programmes implemented for the benefit of Scheduled Castes and Scheduled Tribes.
- (d) Evaluation study of Major Agricultural Development Projects like Ela Programme, Coconut Development Programme, Cashew Development Programme etc.
- (e) Dairy Development Projects
- (f) Poultry Development Projects.
- (g) Village and Small Scale Industries Programmes.
- (h) Working of selected Public Sector Enterprises Schemes for evaluation would be taken up in consultation with the concerned implementing departments. The outlay proposed is for strengthening the Evaluation Division to cope with the additional workload in taking up these studies.

### (ii) *Strengthening of Monitoring Unit*

The Central Planning and Monitoring unit attached to the Department of Planning and Economic Affairs attends to the work relating to the monitoring of plan schemes. Monitoring involves watching the progress of the schemes against the time and resource schedule during the implementation stage. Progress of major schemes have to be watched carefully and corrective action taken wherever necessary. The outlay proposed is for continuance of the existing unit and for appointment of additional staff.

### (iii) *Manpower Planning Units*

The technical personnel of the Manpower Planning Units working in the various Development Department belong to the Directorate of Economics and Statistics. These units conduct studies relating to the supply of and demand for various categories of manpower in the State. Special manpower studies are proposed to be taken up during the Plan period. The outlay proposed is for strengthening the Manpower Planning Units in the Directorate of Economics and Statistics and in other major departments.

## 3. Secretariat

### (i) *District Development Councils*

The outlay provided is for meeting the expenditure towards travelling allowance of members of the District Development Councils.

### (ii) *Publication of District Plans*

Annual District Plans prepared on the basis of annual plan budgets are published every year in all the districts. The outlay provided is for the publication of district plan documents.

### (iii) *Kerala Institute of Public Administration*

The Kerala Institute of Public Administration established at Trivandrum in 1976, imparts management education and training to the officials of the various Government Departments and other agencies. The Institute has two regional Centres at Calicut and Cochin. The programmes of the Institute comprise management education and training programmes, policy and operations research, consultancy and extension, seminars and conferences etc., for all aspects of State's economic and social life where management science can play a useful role. The Institute is proposed to be developed into a full fledged national training institute comparable with other renowned institutes functioning in the country. The outlay provided is for the construction of buildings for administrative block, lecture halls, library, hostels, staff quarters etc. for the Institute at Trivandrum and for the regional centres at Cochin and Calicut and for the development of various faculties.

### (iv) *Implementation of Malayalam as Official Language.*

The State Government has decided that by 1982 Malayalam should be used as the official language at all levels of administration. In order to speed up the switchover to Malayalam, more Malayalam typewriters will have to be provided in the various Departments. At present the journal 'Bharana Bhasha' is being published to help the officials to acquaint themselves with Malayalam equivalents of technical terms in English. The outlay provided is for the purchase of Malayalam typewriters, continuance of the publication 'Bharana Bhasha', conduct of seminars and discussions, preparation of a glossary etc.

### (v) *Project Cell in the Secretariat*

The outlay provided is for setting up a project cell in the Secretariat for scrutiny of important projects.

### *Economic Advice and Statistics*

With the added importance envisaged for the decentralisation of planning process, the demand on the statistical system both for its quality and coverage is on the increase. The Directorate of Economics and Statistics is the apex organisation for all statistical activities in the State. It functions as the agency for systematic collection, compilation and analysis of statistics relating to the different sectors of economy. The High Power Statistical Committee and the working group of Central Statistical Organisation and the National Commission on Agriculture have recommended the streamlining of the existing statistical system in order to meet the data requirements for scientific planning for economic development.

The following schemes are proposed for the Plan period 1980-85 under the Directorate of Economics and Statistics:

(i) *Strengthening of the Directorate of Economics and Statistics including Re-organisation of District Statistical Units*

(a) *Mechanical Tabulation Unit*

The Plan outlay allotted is for the purchase of punch cards and for meeting the maintenance expenditure of the punching machine installed in the Directorate of Economics and Statistics.

(b) *Construction of Index of Industrial Production*

This is a continuing scheme to compute and publish quarterly indices of industrial production. The provision is for meeting the expenditure on the staff in the Unit.

(c) *Reorganisation of District Statistical Units*

With the recent set up of District Planning machinery the requirements of statistical data at Block level is keenly felt. In order to generate Block level statistics it is proposed to organise the compilation and tabulation of data at the District level. For this purpose it is proposed to strengthen the Directorate's statistical offices in the districts.

(d) *Strengthening of the State Income Unit*

The State Income Division of the Directorate is also proposed to be strengthened. Field staff to collect data required by this Unit in certain unorganised sectors will also be provided. The Plan provision made is for implementing the above proposals.

(e) *Strengthening of Prices Division*

The computation of monthly consumer price index, a yard stick to determine the variable D.A. for Industrial and other workers, is entrusted with the Prices Division of the Directorate. The Committee on consumer price index numbers set up by the Government of Kerala and the working group on price statistics set up by Central Statistical Organisation have in their proposals recommended the re-orientation of the price collection machinery at various levels in order to improve the quality of the consumer price index numbers. The proposal is for strengthening the price collection machinery.

(f) *Preparation of a Departmental Code for the Directorate of Economics and Statistics*

A special unit for the preparation of Departmental Code which will specify the duties and responsibilities of each category of staff, delegation of powers, timeliness of periodical reports etc., is proposed to be created in the Directorate.

(g) *Creation of an Industrial Statistics Division*

At present the Industrial Statistics Unit does not collect data on unregistered industrial units in the State which account for a substantial proportion of industrial production and employment. In order to take up studies relating to this aspect it is proposed to reorganise

the Industrial Statistics Unit in the Directorate into a fullfledged Division.

(h) *Creation of a Social Statistics Division*

Social statistics covers a number of segments like population and vital events, housing, health and nutrition, education, labour condition, culture, crime and justice, social welfare and social security, community development, welfare of Scheduled Castes and Scheduled Tribes, status of women and children, youth welfare etc. It is proposed to set up a Social Statistics Division in the Directorate to ensure an integrated approach in the collection of social service statistics.

(i) *Survey, Design and Research Division.*

The Directorate conducts a number of sample surveys every year to study the various aspects of the State's economy. A new Division of the Directorate will be made responsible for designing sample surveys, preparation of schedules and instructions, training of field staff, preparation of tabulation programmes and estimation procedures etc. In addition to the above the Division will assist the statistical units in other departments in conducting Census and Surveys. The Plan provision is for setting up the new Division.

(j) *Economic Analysis Division*

It is proposed to undertake problem-oriented research and analytical studies based on the data available in the Directorate or collected from secondary sources. For this purpose a new Division will be formed in the Directorate. This division will also undertake the preparation of periodic reviews of the general economic profile of the State.

(k) *Library Development, Publication and Documentation Division*

To channelise all the outgoing statistical information generated in the Directorate, a Statistical Intelligence and Publication Division is proposed to be set up. This Division will be responsible for preparation of publications like statistical abstract, statistical outline etc. The outlay is for this purpose.

(l) *Strengthening of Co-ordination Division*

In addition to Directorate of Economics and Statistics other Government Departments and agencies also conduct surveys and publish statistical information. To avoid duplication of work and to evolve a common methodology in definition, classification and presentation of data for all Government Departments and other agencies, it is proposed to strengthen the Co-ordination Division with a senior officer and supporting staff.

(ii) *Surveys and Studies*

(a) *Continuing Surveys*

Necessary provision is proposed in the Plan for the continuation of the schemes viz: Survey on wage structure, survey on household consumption and survey on cost of cultivation during the Plan period.

(b) *New Surveys**Survey on Construction Activity*

The construction industry represents an important segment in the State's economy in terms of its contribution to the State income as well as employment generated. As no systematic effort has been made to collect data on this unorganised sector, it has become difficult to compute estimates of State income. It is therefore proposed to conduct a sample survey on the construction industry in the private sector during the Plan period.

*Survey on Housing*

To evolve a housing policy for the State it is proposed to conduct a study on the problems of the different categories of people who do not have proper housing facilities. The study will give special emphasis on the problems of slum dwellers.

*Survey on Inland Water Transport*

Transport of goods by water transport (non-mechanised crafts) is a major economic activity generating substantial employment opportunities. But lack of reliable data on this sector is an obstacle in drawing up schemes for the development of water transport system. Data on water transport activities are needed in the computation of State income also. Therefore it is proposed to carry out a detailed study of the inland water transport system by non-mechanised boats. The survey will cover all items of information on the quantities of various commodities transported, their origin and destination, number of crafts, employment generated etc.

*Survey on Distributive Trade*

The trade sector contributes about 10 per cent of the total State income. Since no study on distributive trade has so far been carried out, this sector is having a very weak data-base in the computation of State income. It is proposed to take up a survey on distributive trade to fill this data gap in trade statistics. In designing the survey, proper representation has to be given in the sample to wholesale trade, retail trade and unregistered trading establishments.

*Survey on Socio-Economic conditions of Agricultural Labourers*

The National Commission on Agriculture has recommended taking up of a study for the collection of reliable statistics relating to the socio-economic conditions of agricultural labourers. The scheme proposed in the Plan is for conducting a survey on the socio-economic conditions of agricultural labourers in Kerala.

*Survey on the pattern of employment and Unemployment among educated persons*

There is considerable time lag in obtaining suitable employment after acquiring educational qualifications. In order to study the existing pattern of employment, waiting time for jobs in the live registers in Employment Exchanges etc., it is proposed to carry out a survey during the Sixth Plan period.

*Survey on movement of goods traffic through Check Posts.*

Data on inter-state movement of goods by road are of vital importance in the context of drawing up programmes on economic development. Data regarding

the quantity and value of goods transported to and from Kerala will be collected from the border check posts in the survey proposed to be taken up in the Sixth Plan period by the Directorate.

*Other Ad hoc Surveys and Studies*

There is dearth of statistical data relating to certain sectors. To fill some of the data gaps it is proposed to conduct surveys on real estate transactions, impact of migration on fertility, social mobility, social consumption etc.

(iii) *Training of Statistical Personnel*

A training unit is proposed to be set up in the Directorate to organise training courses to the personnel engaged in the collection of statistics. The outlay proposed is for meeting the expenditure on the training unit and for meeting the expenditure on deputation of officers for training courses.

(iv) *Purchase of Vehicles for District Statistical Offices*

The outlay proposed is for the purchase of one jeep for each of the district and two vehicles for the use of the officers in the Headquarters.

(v) *Centrally Sponsored Schemes—State share*(o) *Timely report of agricultural statistics*

The survey envisages collection of data for estimating the various parameters under area and yield statistics for each agricultural year. The survey is so designed that the entire area of the State will be completely enumerated at the end of six rounds of survey. This survey was started in 1975-76 as a Centrally sponsored scheme. The outlay proposed is for meeting State's share of 50 per cent of the cost of the scheme during 1980-85.

(b) *Economic Census and Surveys*

A survey on economic activities such as construction, mining, quarrying etc., would be taken up in 1980-81. A second round of Economic Census would be conducted along with the house listing operation of 1981 census. The outlay is for continuance of staff during 1980-81.

*Other General Economic Services**Regulation of Weights and Measures*

The Departments of Weights and Measures is the agency authorised to regulate the weights and measures in the State and to enforce the various provisions of the Act and Rules. At present there are 38 Divisional Inspectors and 12 District Inspectors in the State for carrying out the work of verification of weights and measures in the various trading establishments, initial verification of new weights, verification of working standard, for carrying out surprise and routine inspection of trading and other premises etc. The present staff strength is quite insufficient for carrying out the Department's work effectively and efficiently. It is therefore proposed to strengthen the Department by appointing more District and Divisional Inspectors. The Department is proposed to be reorganised into three regions under the control of three Deputy Controllers. It is also proposed to set up two secondary standard laboratories, one at Trivandrum and another at Trichur

and also permanent facilities for calibration of tank vehicles in three districts, Trivandrum, Ernakulam and Kozhikode. Six diesel jeeps and 4 cars and 25 sets of working standard balances, weights and measures are

proposed to be purchased. The outlay provided is for reorganisation and strengthening of the Department and for purchase of vehicles and equipments and for establishing working standard laboratories.

TABLE 5.56

**Economic Services—Scheme-wise Outlay**

(Rs. in lakhs)

Name of Scheme	1979-80 Actuals	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>General Economic Services</i>							
<b>1. Planning Board</b>							
(i) Strengthening of State Planning Machinery & District Planning Units	14.63	23.00	23.00	125.00	25.00	35.00	25.00
(ii) Electronic Data Processing Unit	..	5.30	5.30	75.00	75.00	50.00	50.00
(iii) Preparation of Area Plans and conducting of Surveys & Studies	..	11.00	11.00	65.00	..	17.00	..
(iv) Plan Publicity	0.30	2.00	2.00	15.00	..	3.00	..
(v) Purchase of vehicles for District Planning Units	..	..	..	10.00	..	5.00	..
Sub-Total—Planning Board	14.93	41.30	41.30	290.00	100.00	110.00	75.00
<b>2. Monitoring &amp; Evaluation</b>							
(i) Strengthening of Evaluation Machinery in the State Planning Board	..	1.00	1.00	15.00	..	3.00	..
(ii) Strengthening of Monitoring Unit	1.00	1.00	1.00	5.00	..	1.00	..
(iii) Man power Planning Unit	0.50	0.50	0.50	5.00	..	1.00	..
Sub-Total—Monitoring & Evaluation	1.50	2.50	2.50	25.00	..	5.00	..
<b>3. Secretariat</b>							
(i) District Development Councils	2.00	2.00	2.00	10.00	..	2.00	..
(ii) Publication of District Plans	0.20	0.20	0.20	1.00	..	0.20	..
(iii) Institute of Public Administration (including Construction of Building)	21.56	20.00	20.00	100.00	60.00	25.00	20.00
(iv) Implementation of Malayam as official language	1.00	3.00	3.00	15.00	..	3.00	..
(v) Project Cell in the Secretariat	..	1.00	1.00	5.00	..	1.00	..
Sub-Total—Secretariat	24.76	26.20	26.20	131.00	60.00	31.20	20.00
Total—General Economic Services	41.19	70.00	70.00	446.00	160.00	146.20	95.00
<i>Economic Advice and Statistics</i>							
(i) Strengthening of the Directorate of Economics and Statistics including Reorganisation of District Statistical Units	2.25	4.40	4.40	85.00	..	14.00	..
(ii) Surveys and Studies	1.12	11.95	11.95	65.00	..	11.00	..
(iii) Training of Statistical Personnel	0.10	0.50	0.50	20.00	..	3.00	..
(iv) Purchase of Vehicles for District Statistical Offices	0.88	1.00	1.00	10.00	..	2.00	..
<b>V. Centrally Sponsored Schemes (State Share)</b>							
(a) Timely Report of Agricultural Statistics	26.05	31.00	31.00	190.00	..	38.00	..
(b) Economic Census and Surveys	1.34	2.15	2.15	2.15	..	..	..
Total—Economic Advice & Statistics	32.32	51.00	51.00	372.15	..	68.00	..
<i>Other General Economic Services</i>							
Regulation of Weights and Measures	4.20	6.00	12.50	80.00	10.00	15.00	5.00
Total—Economic Services	77.71*	127.00	133.50	898.15	170.00	229.20	100.00

\*The outlay includes provision made for schemes which have been completed.

## 5.8 General Services

### (i) Stationery and Printing

#### 1. Government Presses

The outlay provided is for implementing the following programmes:

#### A. Purchase of Machinery for Government Presses

- (i) Government Press, Cannanore
- (ii) Government Press, Mannanthala
- (iii) Government Press, Vazhoor, Kottayam District (New Scheme)
- (iv) Government Press, Quilon (New Scheme)
- (v) Government Press, Calicut (New Scheme)
- (vi) Government Confidential Press, Mannanthala (New Scheme)

#### B. Expansion of Workshops—Purchase of machinery

#### C. Construction of Buildings for the Government Presses

##### (i) Government Press, Mannanthala

This is a continuing programme. Out of the proposed 6 blocks, construction of 2 blocks has been completed. The proposal is for the construction of the remaining 4 blocks.

##### (ii) Government Press, Cannanore

It is proposed to construct a multi-storied building for accommodating the computing and reading sections, forms, stores and general stores sections.

##### (iii) Government Press, Vazhoor, Kottayam District

The proposal is for construction of building for the new press to be established at Vazhoor in Kottayam District.

##### (iv) Government Press at Quilon

It is proposed to start Government Presses at all district headquarters under a phased programme. As part of the Government Press, there will be stores for forms and other Government publications. The proposal is for construction of buildings for the press and forms stores at Quilon.

##### (v) Government Press, Calicut

As part of the policy of starting Government Presses and forms stores at district headquarters it is proposed to establish a Government Press at Calicut. The proposal is to construct buildings for the Government Press at Calicut.

##### (vi) Construction of Buildings for Shifting the Government Press, Ernakulam

The Government Press, Ernakulam, is now housed in an old and dilapidated building. There is no scope for its expansion and improvement unless it is shifted to a new place. The outlay proposed is for meeting the expenditure towards cost of land and building.

##### (vii) Construction of Building for a Separate Confidential Press at Mannanthala, Trivandrum.

It is proposed to start a new press at Mannanthala for printing confidential publications within the scheduled time. The proposal is for construction of building for the press.

##### (viii) Construction of Building for a Form Store in the Mannanthala Press Campus

The present building where the form store is functioning in Trivandrum is very old and dilapidated. It is therefore proposed to construct a building in the Mannanthala Press Campus for the form store.

#### D. Construction of Quarters for Officers, Staff and Employees of the Government Presses

The proposal is for construction of residential quarters for officers, staff and employees of the Government Presses at Mannanthala, Cannanore, Ernakulam, Vazhoor, Quilon and Calicut.

#### E. Replacement and Addition of Machinery in Government Presses

Several machines available in the Government presses are old and outmoded, with the result efficient working of the presses is affected adversely. The present manpower cannot be utilised effectively with the available outmoded machines. It is therefore proposed to purchase modern composing, printing and binding machines for the Government Central Presses, Trivandrum, Central Prison Press, Trivandrum, Stamp Manufactory, Trivandrum and the Government Presses at Ernakulam, Shoranur and Cannanore.

## 2. Kerala Books and Publications Society

The Kerala Books and Publications Society, established with the technical collaboration of M/s. UNITECHNA, a G. D. R. Company, has started functioning. The construction of buildings is over and the machinery supplied by the collaborating foreign firm has been installed. It is proposed to purchase a printing/binding machinery and equipments for the text book press. It is also proposed to start a Post-Diploma Course in printing technology under the auspices of the Books and Publications Society utilising the facility of the most modern printing machinery etc. available in the society. The outlay provided is for implementing the above programmes.

### (ii) Public Works

#### 1. Public Building Construction Programme

The building construction programmes of all non-development departments, that is, those departments which do not directly implement plan schemes are included under this head. Buildings have to be constructed for the following Departments:

1. State Legislature      Legislature Complex
2. Judiciary              New Blocks for High Court, Residential quarters for Judges of High Courts, Buildings for Subordinate Courts etc.

3. Revenue Department	Village offices, Taluk offices and Revenue Division offices
4. Registration	Sub Registrars' offices
5. Sales Tax	Taluk offices, Checkposts with office cum quarters, Weigh-bridges etc.
6. State Excise	Buildings for District Offices
7. Treasury	Sub Treasuries and District Treasuries
8. Police	Police Stations and Circle Inspectors' offices
9. Public Service Commission	A new Block at Headquarters
10. Jail	Shifting of Central Jail from Trivandrum City
11. Fire Forces	Construction of buildings for regional offices
12. Electrical Inspectorate	Construction of buildings for headquarters and regional offices
13. Labour courts	
14. Secretariat	Additional Block
15. Vikas Bhavan	do.

Several Government Offices are at present housed in private buildings, requiring the state exchequer to pay huge amounts by way of rent. Further, as a result of increased tempo of development activities and consequent expansion of development departments, accommodation of Government offices has become an urgent problem requiring immediate solution. It is also proposed to construct a Convention Building at Trivandrum for holding meetings and conferences of national and international importance. At present the absence of such a building is very keenly felt. Construction of buildings for the above departments and the Convention building would be taken up under a phased programme during the Plan period.

#### 2. Kerala State Construction Corporation

The Kerala State Construction Corporation is a fully owned Government undertaking for executing works of various organisations and Government Departments. The Corporation has been set up in order to avoid private contractors in the construction of at least major projects. Presently, the Corporation is engaged in the construction of several works costing about Rs. 15 crores. The Corporation requires working capital for running contracts and additional share capital and loan for purchasing machinery. The outlay provided is for payment of share capital contribution and loan to the Corporation.

#### 3. Kerala State Engineering Works Limited

The Government Engineering Workshop, Trivandrum, has been converted into a public limited company by name Kerala State Engineering Works Ltd. The company will be having a carpentry shop, an automobile unit and a forging unit. The outlay provided is for payment of share capital contribution to the company.

TABLE 5.57

#### General Services—Scheme-wise Outlay

Name of Scheme	1979-89 Actuals	1980-81		1980-85		1981-82	
		Approved Outlay	Anticipated Expenditure	Proposed Outlay	Capital Content	Proposed Outlay	Capital Content
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Stationery and Printing</i>							
1. Government Presses	7.66	55.00	30.50	450.00	450.00	75.00	75.00
2. Kerala Books and Publication Society	30.00	10.00	10.00	50.00	50.00	10.00	10.00
Total—Stationery and Printing	37.66	65.00	40.50	500.00	500.00	85.00	85.00
<i>Public Works</i>							
1. Public Building Construction Programme	342.00	290.00	290.00	3100.00	3100.00	320.00	320.00
2. Construction Corporation of Kerala	15.00	15.00	15.00	80.00	80.00	15.00	15.00
3. Kerala State Engineering works Limited	17.00	5.00	5.00	30.00	30.00	5.00	5.00
Total—Public Works	374.00	310.00	310.00	3210.00	3210.00	340.00	340.00
Total—General Services	411.66	375.00	350.50	3710.00	3710.00	425.00	425.00

## CHAPTER VI

### MINIMUM NEEDS PROGRAMME

The acute problem of poverty persisting despite nearly three decades of planning prompted Government of India and the Planning Commission to accept the eradication of poverty as a major national policy. The national minimum needs programme has been enunciated as a major step towards alleviating the living conditions of the poorest strata of the society. The objective of this programme is to provide the minimum requirements in respect of items of social consumption such as elementary education, drinking water, medical care, nutrition, house sites for the landless labour, rural roads, rural electrification and slum improvement. The strategy adopted is to give over-riding priority to the provision of these facilities, in the respective sectors of development. Accordingly priority is given to the allocation of available plan funds both at national and state levels for the development of the above mentioned minimum needs. The National Minimum Needs Programme was introduced in the Fifth Plan (1974-79).

6.2 In the Plan frame for 1980-85 the components included in the Minimum Needs Programme are Elementary Education, Rural Health, Rural Water Supply, Rural Roads, Rural Electrification, House Sites for Landless Labourers, Environmental Improvement of Urban Slums and Nutrition. The minimum needs programme will receive priority in the allocation of resources, and will be supplemented by the wider programme in the respective sectors.

6.3 As the level of development achieved by Kerala in respect of most of the components under the Minimum Needs Programme is relatively better than in many of the other States in India it has become necessary to resort to marginal deviations from the all India norms adopted for drawing up schemes under the programme. Sufficient allocations have however been provided under the different programmes to maintain the tempo of development already achieved in the State. The aggregate outlay required for all the eight items of the programme over the five years 1980-85 would be Rs. 179.07 crores. The outlay for the year 1981-82 would be Rs. 29.46 crores. The details relating to each of the components of the programme are given in the following paragraphs.

#### 1. *Elementary Education*

6.4 Kerala has almost nearly achieved the national target of providing free education to all the children in the age group 6-14 years. This does not mean that all is well with Kerala's elementary education system. It is necessary to pay more attention to improving the quality of education, provision of furniture and equipments and proper accommodation for the schools. In a state like Kerala where there is heavy rainfall for more than six months of the year, running of schools in insecure temporary structures is highly risky. A majority of the elementary schools have only temporary thatched sheds. This entails a large investment for school building construction programme. As the States resources are limited, only nominal amounts could be provided

under the Plan for this programme. An amount of Rs. 14 crores is earmarked for elementary education under the MNP.

#### 2. *Rural Health*

6.5 Compared to most other States in India Kerala is quite advanced in the provision of health services to the rural population as well as to the urban population. Actually the urban-rural difference in this respect is much less in Kerala than in other parts of India. The only exceptions to this are a few remote villages or settlements in the high ranges and the water-logged areas. Kerala is perhaps the only State in India which is provided with a Government Medical institution in every panchayat. Apart from the network of government institutions under the different systems viz. allopathy, ayurveda and homoeopathy, there are a large number of well-run private institutions catering to the rural and urban population, under all the three systems referred to above.

6.6 Kerala has already achieved the national target of one hospital bed for every thousand population, in spite of the high density and rate of growth of population. The State has almost reached the minimum death rate and leads the other states in the expectation of life at birth. There is, however, considerable inter-regional disparity in the provision of health services within the State itself. The district-wise differences in medical facilities is ample proof for this. The reduction of such inter-regional disparities deserves high priority in the health sector. A policy aimed at removing such disparities will naturally take care of the lack of medical facilities in remote areas.

6.7 The development of Primary Health Centres and Sub-Centres forms an important part of the rural health programme. Strengthening and improvement of P.H. Centres and rural centres and community health worker scheme are all aimed at improving the health of the rural masses. The present norms of one PHC for every lakh of population and one sub-centre for every 10,000 population are to be revised to one PHC for every 80,000 population and one sub-centre for every 5,000 population. The new norms are expected to be achieved by 1990. A total outlay of Rs. 10 crores is provided (Rs. 7.82 crores for allopathy Rs. 1.58 crores for ayurveda and Rs. 0.60 crores for homoeopathy) under the minimum needs programme in the Sixth Plan.

#### 3. *Rural Water Supply*

6.8 Provision of rural water supply is not merely a question of availability of water. Water supply programme implies supply of pure and safe drinking water to the rural people. The villagers of Kerala generally depend on well water for drinking purposes. As the State gets plenty of rainfall, the wells, as a rule, provide ample drinking water. However, in the case hilly areas and the coastal regions there are difficulties in using well water for drinking purposes. In the hilly areas the wells are very deep and would fail during the summer months. In the coastal regions the

main problem is salinity of water. The provision of pure piped water in both these regions is therefore an urgent need. The State Government could, so far, do only very little towards solving this problem.

6.9 As a result of the priority assigned to urban water supply in the State, all the cities and most of the towns in Kerala have water supply systems. A number of rural water supply schemes have also been taken up and implemented under the five year plans. However a large area still remains to be covered in this field. In the five year period 1980-85 a determined effort will be made to cover almost all the problem areas by piped water supply system. As the distinction between the rural and urban areas is not so marked in Kerala as in other parts of the country, many of the so called rural areas share urban characteristics and are in need of protected water supply. The present policy of the Government is to implement rural water supply schemes as remunerative schemes with the loan assistance of L. I. C. of India. This process could continue in accordance with the availability of funds from Government and financial institutions. In the Sixth Plan a total outlay of Rs. 70.39 crores will be earmarked for rural water supply schemes under the Minimum Needs Programme.

#### *Rural Roads*

6.10 The peculiar lay-out of villages in Kerala makes it impossible to apply the minimum needs programme norms formulated by the Planning Commission to Kerala. Most of the villages in Kerala have road links with district or State roads. As in the case of other items of minimum needs there are certain regions which lag far behind the rest of the area in the matter of communication. Such areas occur mainly in tribal pockets or other settlements in the high ranges. Provision of all-weather roads is a pre-requisite to the development of these villages and thus deserves high priority.

6.11 Rural roads comprising village roads and some of the other district roads serve as feeders linking villages with each other as well as with the nearest district roads, state or national highways, schools, market centres, railway stations etc. The object under the Minimum Needs Programme is to connect all villages having a population of 1500 and above with an all-weather road. As the entire area of the Kerala State is more or less evenly populated, almost all the places are connected either by P.W.D. roads or roads maintained by other agencies like panchayats, N.E.S. Block etc.

6.12 The total length of rural roads in the State is approximately 70,000 Km. Out of this, the State Public Works Department is maintaining only about 2,000 Km and the rest is under the control of agencies like panchayats, C.D. Blocks, Forest Department etc. Most of these are earthen Kutchra roads with insufficient width. There is already bus traffic in about 4000 kms of these roads.

6.13 For the Sixth Plan period an outlay of Rs. 32 crores is provided to develop and improve on a priority basis the roads in which there is already vehicular traffic. This outlay includes Rs. 10 crores for improvement of roads executed through Community Development Blocks. The State Public Works Department

and the Community Development Department will together improve about 5000 km. of roads during the Plan period under M.N.P.

#### *Rural Electrification*

6.14 Almost all the villages in Kerala are electrified in the sense that there is at least one electric line touching the village. However there are many rural areas (karas) and rural households which are not served by electrification. In the past funds set apart and works implemented in the field of transmission of electricity were not commensurate with progress achieved in generation of electricity. As a result of the realisation of this discrepancy adequate attention is being given to transmission of power in the Sixth Plan. What is needed in Kerala in the field of rural electrification is extension of transmission lines to all parts of the villages so that all the households could get the benefit of electrification.

#### *House Sites and Houses for Landless Labour Households*

6.15 The commendable progress achieved by the State in enacting and implementing radical land reform measures has resulted in a large number of agricultural labour households acquiring ownership of land to serve as house sites. The provision in the Land Reforms Act which entitles the Kudikidappukar (those who live in hutments put up on land owned by another person) to acquire ownership of a minimum of ten cents of land around their hutments at nominal cost, has benefited about four lakhs of households, mostly belonging to agricultural labour class. The hutments in which they dwell are too small and insecure to be called houses. Being casual labourers with only partial employment they are not able to construct houses by themselves. Any housing programme intended for the landless labour class will have to be fully financed by the State with a major component of subsidy. An amount of Rs. 5 crores is earmarked for the scheme, 'provision of house sites to rural workers'. An ambitious housing programme for this class is proposed to be undertaken by the Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes which can avail finance from financing institutions also. In addition to provision of houses for landless labourers, the State gives emphasis to other rural housing projects such as co-operative housing scheme for economically weaker sections, village housing project, etc. Altogether a total outlay of Rs. 24.18 crores is earmarked for rural housing programmes as part of M.N.P. schemes.

#### *The environmental Improvement of Urban Slums*

6.16 The State shares the problem of urban slums more or less in proportion with the size of its urban population. Past efforts for rehabilitation of the slum dwellers by transplanting them from their original habitate could not succeed because of their reluctance to move to a new locality which would usually be away from the heart of the city or town. It is as an alternative that the improvement of slums has been accepted as a national policy. The components of the environment improvement programme are water supply, sewerage, paving of streets and provision of community latrines. This programme will at least serve as a temporary solution to the problem. Apart



from these limitations, the programme is not capable of being implemented in all the slums. There are in Kerala, as much as in other parts of India, slums which are not amenable to any improvement programme. Therefore there is likelihood of some of the worst slums remaining untouched in the event of the improvement programme being strictly combined. The programme of demolition of slums should go hand in hand with the reconstruction and general environmental improvement of the slum areas. It is worth mentioning in this context that the proposed urban development programme of the State for 1980-85 includes programmes for replacing urban slums with multi-storeyed buildings which can accommodate the entire slum dwellers of the area by flat system. An outlay of Rs. 7.25 crores is earmarked for this MNP scheme in the State's Sixth Plan.

### Nutrition

6.17 Kerala being one of the States with a large food deficit, nutrition level of the population is considerably low. There are no reliable statistics regarding the extent of malnutrition, but it is generally accepted that the problem is not as acute as the food deficit would indicate. The availability of starchy tubers like tapioca and fruits and vegetables like jack fruit and banana and the comparatively easy availability of fish are some of the factors which help to sustain the nutrition standards even at the present levels. Even then large sections of poor people are severely

undernourished. Malnutrition among the children, pregnant women and nursing mothers deserves special attention in the Plan programmes. The policy has been to provide supplementary diet to these sections. This policy has to continue as provision of balanced food to all people cannot be achieved in the near future. The most important nutrition programme under operation in the State is the CARE feeding programme for the primary school children. Besides this there are certain other schemes like supply of food for pre-school children which include items like special nutrition programme and applied nutrition programme. Expectant and nursing mothers also receive free food materials from the CARE. The special nutrition Programme will be extended to cover a larger number of children and mothers during 1980-85 subject to availability of food materials and funds by way of foreign aid and central allotments. There are six different types of nutrition programmes in the State which are being implemented by different agencies. The nutrition content of the programme varies from one programme to another and quite often more than one programme is implemented in the same area and through the same voluntary agency. It may therefore be necessary to bring about better co-ordination in these programmes so that it will contribute to greater effectiveness and help avoid waste and duplication of effort. An outlay of Rs. 21.25 crores is set apart for nutrition schemes in the Sixth Plan.

6.18 Table 6.1 gives allocation of outlays under the various MNP components.

TABLE 6.1  
Minimum Needs Programme—Kerala (1980-85)

Sl. No.	Programme	Unit	Targets for 1980-85	
			Physical Quantity/No.	Financial (Rs. lakhs)
(1)	(2)	(3)	(4)	
1.	Elementary Education	Nos. '000 (a) Classes 1 to 5	30.0	1400.00
		„ (b) Classes 6 to 8	100.0	
2.	Rural Health	(a) Primary Health Centres	Nos. 37	100.00
		(b) Sub-Centres	„ 1792	
		(c) Rural Hospitals	„ 20	
3.	Rural Water Supply	No. of Villages Covered by piped Water Supply	481	7039.00
		No. of Wells	100	
4.	Rural Roads	Length (in Km.)	5000	3200.00
5.	Rural Electrification	..	..	..
6.	House Sites for Landless Labour Households and Rural Housing	No. of Rural House Sites	17,000	2418.00
7.	Environmental Improvement of Urban Slums	Cities covered	35	725.00
8.	Nutrition	Beneficiaries under Special Nutrition Programme	131	2125.00
Total				17907.00

## SPECIAL COMPONENT PLAN FOR SCHEDULED CASTES

Scheduled castes constitute about 9 per cent of Kerala's total population. Their number has increased from 17.7 lakhs to about 22.5 lakhs during the period 1971 to 1980. The proportion of scheduled castes in the poverty population of the State is much larger than the proportion of 8 to 9 per cent in the total population. A rough estimate shows that nearly 90 per cent of scheduled caste families are below the poverty line. The scheduled castes in the State are characterised by extremely low income, poor asset ownership, general dependence on agricultural labour, subsistence farming and various other low income occupations.

7.2 In the successive five year plans emphasis has been laid on the development of scheduled castes through special programmes. But the fruits of various developmental programmes have by and large bypassed this category of people owing mainly to their economic, social and educational backwardness. Till a few years back the emphasis on Plan schemes which are related to scheduled castes has been on education. This has contributed a notable increase in the enrolment of scheduled caste students in schools and colleges. As a consequence the literacy of scheduled castes is much higher in Kerala compared to the rest of India. The percentage of literacy among the scheduled castes was 40.21 according to 1971 Census as against the general literacy rate of 60.42 per cent for the State as a whole (In 1961 the percentage of literacy among the scheduled castes was only 24.4). Though notable progress in the matter of education among the scheduled castes is discernible, it is also found that drop-outs and stagnation are high among scheduled castes.

7.3 In the earlier Plans little attention was given to economic development of scheduled castes. Education, in which the scheduled castes in the State have shown some advancement, is of course the basic input for economic development. Emphasis will therefore be continued to be laid on development of education which will provide the inner strength for the community to face new situations. Care will be taken to see that the benefits of programmes other than education also accrue to the scheduled castes in the coming years.

7.4 A review of the achievements in the earlier Plans show that scheduled castes did not receive the benefits due to them from the general sector programmes. In the Fifth Plan a new strategy was evolved to ensure flow of benefits from general sectors to scheduled castes. The development departments were instructed to allocate at least ten per cent of the development outlays to schemes benefiting scheduled castes and scheduled tribes. State Government also emphasised the need for identification of schemes which would be of particular benefit to scheduled castes, under general sector programmes. During the year 1979-80 schemes suited for Scheduled Castes were listed out and a Special Component Plan for scheduled caste was prepared for Rs. 9.39 crores. An amount of Rs. 7.54 crores was spent during the year

for the benefit of scheduled castes alone. After reviewing the performance of the general sector programmes for 1979-80 the State Government recommended certain special schemes for the benefit of scheduled castes and scheduled tribes. These schemes included extension of electricity to harijan colonies, water supply to harijan colonies/settlements, supply of E.S.P. type latrines to all families in harijan colonies, construction of roads, minor irrigation works, supply of coconut seedlings and granting interest-free loans up to Rs. 10,000 to each harijan entrepreneur in small scale industry and traditional industry. During the current financial year (1980-81) the State Government earmarked schemes worth Rs. 19.42 crores from the general sector exclusively for the benefit of scheduled castes. This is about 7 per cent of the total annual plan size.

7.5 In the Sixth Five Year Plan period efforts will be made to take special note of the developmental needs of the scheduled castes and formulate appropriate developmental programmes. The State's Plan programmes have been so drawn up as to benefit scheduled castes in occupational categories such as agricultural labourers, small cultivators, fishermen, handloom weavers and other artisans, those engaged in unclean occupations etc. The Sixth Plan for the State will have a total outlay of Rs. 2,175 crores. Out of this the divisible outlay is only Rs. 1,133 crores. Schemes with an outlay of Rs. 1,78 crores were identified as flow to special component plan for scheduled castes from the general sector. The proportion of this outlay to the total outlay is almost in proportion to the population of Scheduled Castes in the State. Special family oriented and composite programmes are included in the Plan to benefit agricultural labourers and those engaged in agriculture and allied activities. Among the scheduled caste population 66 per cent are agricultural labourers, two per cent are cultivators and 9.5 per cent are engaged in livestock, forestry, fishing, etc. Agricultural labourers get employment only during peak agriculture seasons, roughly about 100 days during the course of an year. Hence their income from agriculture is meagre and quite inadequate. The land reform measures adopted by the Government have contributed substantially to improve the conditions of scheduled castes and scheduled tribes. Up to the end of February 1980, 15,585 acres of surplus land have been distributed to 29,236 scheduled caste families. The Sixth Plan aims to benefit all the above sections to get employment during off-agriculture seasons and thus generate additional regular income to enable them cross the poverty line. Benefits to scheduled castes from special programmes like S.F.D.A., C.A.D. and I.R.D. will also be ensured. Flow of funds for the benefit of scheduled castes from these programmes are shown in the special component Plan. Sufficient outlay is also provided in the Plan to assist the Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes by way of share capital contribution. The programmes of the Corporation will be made effective to provide full support to the development of Scheduled Castes.



7.6 The Plan programmes drawn up in the Sixth Plan for the Bamboo Corporation will be beneficial for scheduled castes and scheduled tribes. The Harijan Welfare Department which is the agency for implementing development schemes exclusively for scheduled castes has identified the beneficiary families and colonies in respect of the programmes like agricultural assistance, extension of electric lines, provision of water supply, construction of roads and handed over to the concerned departments for implementation.

7.7 All the harijan colonies and settlements will be electrified and will be provided with protected water supply during the Sixth Plan period itself. By

getting basic services like education, health, drinking water, electricity, rural roads, houses, etc. scheduled castes will be well on the way to acquire equality with other sections of the community and to go along the mainstream of socio-economic progress. It is estimated that out of the 4.5 lakhs scheduled caste families in the State about 4 lakhs are below the poverty line. The Sixth Plan will help to bring 2.3 lakhs scheduled caste families in Kerala above poverty line during the Plan period. Tables 7.1 and 7.2 give the scheme-wise details of total outlay and flow of funds to scheduled castes and scheduled tribes during the Plan period 1980-85.

TABLE 7.1

**Special Component Plan for Scheduled Castes—1980-85**

(Rs. in crores)

Sl. No.	Outlay	1980-85	1981-82
1.	Total	2175	417
2.	Divisible	1133	212
3.	Special Component Plan for Scheduled Castes	178	33
4.	Percentage of Special Component Plan Outlay to Total Outlay	8.2	8.0
5.	Percentage of Special Component Plan Outlay to Divisible Outlay	15.7	15.6

TABLE 7.2

**SIXTH PLAN 1980-85****Flow of Funds for the Benefit of Scheduled Castes and Scheduled Tribes from General Sector**

(Rs. in lakhs)

Sl. No.	Head of Development	Total outlay	Flow of Funds for the Benefit of Scheduled Castes/Tribes			Flow of Funds for the benefit of S.C.	Flow of Funds to Tribal Sub Plan	Flow of Funds for the Benefit of Dispersed Tribes
			Special Component Plan	Tribal Sub Plan	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Agriculture	10811.55	655.03	..	655.03	529.48	60.50	65.05
2.	Land Reforms	3795.00	310.00	..	310.00	310.00	..	..
3.	Minor Irrigation	4000.00	300.00	..	300.00	280.00	20.00	..
4.	Soil and Water Conservation	1250.00	169.00	..	169.00	149.00	..	20.00
5.	Special Area Programme for Rural Development	2750.92	310.34	..	310.34	200.99	81.00	28.35
6.	Animal Husbandry	1722.00	161.10	50.00	211.10	101.60	99.40	10.10
7.	Dairy Development	976.00	54.50	12.50	67.00	51.50	12.50	3.00
8.	Fisheries	2959.25	95.40	5.00	100.40	95.40	5.00	..
9.	Forests	2580.00	373.00	..	373.00	86.00	287.00	..
10.	Community Development and Panchayat	15125.40	2195.00	..	2195.00	2023.00	76.00	96.00

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11.	Co-operation	2800.00	452.20	..	452.20	387.20	55.00	10.00
12.	Power	34300.00	1564.00	..	1564.00	1300.00	220.00	44.00
13.	Village and Small Industries	7936.28	664.37	..	664.37	561.27	63.10	40.00
14.	Roads and Bridges	9750.00	1000.00	100.00	1100.00	900.00	160.00	40.00
15.	General Education	5436.50	90.50	90.00	180.50	80.50	92.50	7.50
16.	Technical Education	1000.00	23.00	..	23.00	23.00	..	..
17.	Medical, Public Health and Sanitation	5395.71	238.50	15.00	253.50	200.50	38.00	15.00
18.	Sewerage and Water Supply	13385.00	1319.00	150.00	1469.00	1251.00	158.00	60.00
19.	Housing	8300.00	1416.00	94.00	1510.00	1403.50	102.00	4.50
20.	Urban Development	2800.00	400.00	..	400.00	400.00	..	..
21.	Information and Publicity	250.00	10.00	..	10.00	10.00	..	..
22.	Labour and Labour Welfare	10977.00	2570.50	..	2570.50	2506.50	54.00	10.00
23.	Social Welfare	1100.00	23.38	..	23.38	17.58	2.90	2.90
24.	Nutrition	2115.00	745.00	..	745.00	654.00	40.50	50.50
25.	Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes	5014.85	5016.85	..	5016.85	4267.45	..	749.40
26.	Others *	60961.65	..	..	..	..	..	..
<b>Total</b>		<b>217532.11</b>	<b>29156.67</b>	<b>516.50</b>	<b>20673.17</b>	<b>17789.47</b>	<b>1627.40</b>	<b>1256.30</b>

\*Non Divisible Sectors like Mining, Port, Transport, Major Irrigation, Major Industries etc.

TABLE 7.3

ANNUAL PLAN 1981-82

## Flow of funds for the benefit of Scheduled Castes and Scheduled Tribes from General Sector

(Rs. in lakhs)

Sl. No.	Head of Development	Total Outlay	Flow of Funds for the Benefit of Scheduled Castes and Tribes			Flow of Funds for the Benefit of S.C.	Flow of Funds to Tribal Plan	Flow of Funds for the benefit of Dispersed Tribes
			Special Component Plan	Tribal Sub Plan	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Agriculture	2178.48	126.63	..	126.63	102.58	11.55	12.50
2.	Land Reforms	751.00	62.00	..	62.00	62.00	..	..
3.	Minor Irrigation	780.00	50.00	..	50.00	46.00	4.00	..
4.	Soil and Water conservation	254.00	41.00	..	41.00	36.00	..	5.00
5.	Special Area Programme for Rural Development	517.35	56.49	..	56.49	37.00	14.65	4.84
6.	Animal Husbandry	337.95	35.55	10.00	45.55	25.10	17.90	2.55
7.	Dairy Development	218.00	10.70	2.50	13.20	10.00	2.50	0.70
8.	Fisheries	576.00	17.95	1.00	18.95	17.95	1.00	..
9.	Forests	370.00	63.00	..	63.00	14.50	48.50	..
10.	Community Development and Panchayats	3305.70	502.80	..	502.80	457.40	21.55	23.85

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11.	Co-operation	592.00	77.00	..	77.00	63.50	11.50	2.00
12.	Power	6300.00	298.00	..	298.00	245.00	45.00	8.00
13.	Village and Small Industries	1370.80	128.05	..	128.05	107.80	12.25	3.00
14.	Roads and Bridges	1885.00	175.00	25.00	200.00	157.50	35.00	7.50
15.	General Education	1178.90	19.50	15.00	34.50	17.70	15.36	1.50
16.	Technical Education	196.50	6.10	..	6.10	6.10	..	..
17.	Medical Public Health and Sanitation	973.35	36.25	3.00	39.25	30.45	6.10	2.70
18.	Sewerage and water supply	2086.00	238.40	25.00	263.40	218.20	27.00	18.20
19.	Housing	1570.00	288.60	16.00	304.60	286.30	17.00	1.30
20.	Urban Development	493.80	43.00	..	43.00	43.00	..	..
21.	Information and Publicity	61.00	0.50	..	0.50	0.50	..	..
22.	Labour and Labour Welfare	2177.75	513.85	..	513.85	499.10	12.75	2.00
23.	Social Welfare	215.00	4.18	..	4.18	3.18	0.50	0.50
24.	Nutrition	418.00	138.50	..	138.50	120.00	8.25	10.25
25.	Welfare of Scheduled Castes/ Scheduled Tribes and Other Backward Classes	852.05	847.05	..	847.05	736.80	..	110.25
26.	Others (Non-divisible)	12002.40	..	..	..	..	..	..
Total		41661.03	3780.10	97.50	3877.60	3343.66	312.30	221.64

7.8 The flow of funds for the benefit of scheduled castes and scheduled tribes from the general sector in the Annual Plan for 1981-82 is depicted in Table

7.3. The Special Component Plan for the scheduled castes alone will have a total outlay of Rs. 33.43 crores under the various Plan heads.

## APPENDIX

## DRAFT FIVE YEAR PLAN 1980-85 &amp; 1981-82

## Head of Development-wise Outlays

(Rs. in lakhs)

Head/Sub Head of Development	1980-85	1981-82
	Proposed Outlay	Proposed Outlay
(1)	(2)	(3)
<b>I AGRICULTURE AND ALLIED SERVICES</b>		
Research and Education	1400.00	180.00
Crop Husbandry	9183.75	1968.45
Land Reforms	3795.00	751.00
Minor Irrigation	4000.00	780.00
Soil and Water Conservation	1250.00	254.00
Command Area Development	659.00	137.50
Food	1000.00	125.00
Animal Husbandry	1722.00	337.95
Dairy Development	976.00	218.00
Fisheries	2959.25	576.00
Forests	2580.00	370.00
Investment in Agricultural Financial Institutions	1100.00	150.00
Marketing	127.30	13.03
Storage and Warehousing	100.50	17.00
Community Development and Panchayats	15125.40	3306.70
Special Programme for Rural Development	1791.92	324.85
Development of Backward Areas including Hill Areas	300.00	55.00
<b>Total I - Agriculture and Allied Services</b>	<b>48070.12</b>	<b>9564.48</b>
<b>II Co-OPERATION</b>		
Credit Co-operatives	1361.95	300.00
Marketing	350.00	75.50
Processing Co-operatives	100.00	15.00
Consumer Co-operatives	301.75	68.00
Others	686.30	133.50
<b>Total II - Co-operation</b>	<b>2800.00</b>	<b>592.00</b>
<b>III IRRIGATION, FLOOD CONTROL, ANTI SEA EROSION &amp; POWER</b>		
<i>Irrigation</i>		
(a) Water Development (Survey, Investigation & Research)	355.00	60.00
(b) Irrigation Projects	27145.00	5340.00
Sub-Total (a+b)	27500.00	5400.00
Flood Control and Antisea Erosion Projects	3050.00	550.00
	+3100.00*	+600.00*
<i>Power</i>		
(a) Power Development (Survey, Investigation and Research)	400.00	75.00
(b) Power Projects (Generation)	6550.00	1275.00
	+6585.00**	+985.00**
(c) Transmission	10650.00	1850.00
(d) General (including Distribution and Rural Electrification)	16700.00	3100.00
Sub total (a+b+c+d)	34300.00	6300.00
	+6585.00**	+985.00**
<b>Total III - Irrigation, Flood Control, Anti Sea Erosion and Power</b>	<b>64850.00</b>	<b>12250.00</b>
	+3100.00*	+600.00*
	+6585.00**	+985.00**

	(1)	(2)	(3)
	<b>Sub. National Systems Unit</b>		
<b>IV INDUSTRY AND MINERALS</b>	<b>National Institute of Educational Planning and Administration</b>		
Village & Small Industries		7936.28	1370.80
Medium and Large Industries		14701.7016	3230.50
Mining		217.00	55.50
<b>Total IV—Industry and Minerals</b>		<b>22854.78</b>	<b>4656.80</b>
	<b>Date..... 15.6.87</b>		
<b>V TRANSPORT AND COMMUNICATIONS</b>			
Ports, Light Houses and Shipping		1350.00	220.00
Roads and Bridges		9750.00	1885.00
Road Transport		3300.00	600.00
Water Transport		1050.00	160.00
Tourism		1200.00	278.00
<b>Total V—Transport and Communications</b>		<b>16650.00</b>	<b>3143.00</b>
<b>VI SOCIAL AND COMMUNITY SERVICES</b>			
<i>Education</i>			
General Education		5436.50	1178.90
Art and Culture		320.00	68.20
Technical Education		1000.00	196.50
<i>Sub Total (Education)</i>		<b>6756.50</b>	<b>1443.60</b>
Scientific Services & Research		1565.00	420.00
<i>Medical</i>			
Public Health and Sanitation (Excluding E.S.I.)		5365.50	969.05
Employees State Insurance Scheme		30.21	4.30
Sewerage and Water Supply		13385.00	2086.00
Housing (Excluding Police Housing)		7900.00	1495.00
Police Housing		400.00	75.00
Urban Development		2800.00	493.80
Information and Publicity		250.00	61.00
Labour and Labour Welfare		10977.00	2177.75
Welfare of Scheduled Castes/Scheduled Tribes and Other Backward Classes		5044.85	852.05
Social Welfare		1100.00	215.00
Nutrition		2125.00	418.00
<b>Total VI—Social and Community Services</b>		<b>57699.06</b>	<b>10710.55</b>
<b>VII ECONOMIC SERVICES</b>			
General Economic Services		446.00	146.20
Economic Advice and Statistics		372.15	68.00
Other General Economic Services (Regulation of Weights and Measures)		80.00	15.00
<b>Total VII—Economic Services</b>		<b>898.15</b>	<b>229.20</b>
<b>VIII GENERAL SERVICES</b>			
Stationery and Printing		500.00	85.00
Public Works		3210.00	340.00
<b>Total VIII—General Services</b>		<b>3710.00</b>	<b>425.00</b>
<b>Grand Total</b>		<b>217532.11</b>	<b>41661.03</b>
		<b>+3100.00*</b>	<b>+600.00*</b>
		<b>+6585.00**</b>	<b>+985.00**</b>

\* Special Central assistance for Anti-sea Erosion Programme

\*\* Special Central assistance for Power Generation.