

GOVERNMENT OF KERALA

ECONOMIC REVIEW  
1982

STATE PLANNING BOARD

TRIVANDRUM

GOVERNMENT OF KERALA

ECONOMIC REVIEW  
1982

STATE PLANNING BOARD

TRIVANDRUM

**PRINTED BY THE S. G. P. AT THE GOVERNMENT PRESS,  
TRIVANDRUM, 1983.**

## CONTENTS

	<b>PAGES</b>
<b>Chapter 1—GENERAL REVIEW</b>	<b>1—12</b>
Trends in National Economy (1); Trends in Kerala's Economy (3); Income and Employment (4); Agricultural Production (4); Food Situation (5); Land Reforms (5); Co-operation (5); Livestock Development (6); Fisheries (6); Forests (6); Irrigation and Power (7); Industry (7); Transport and Communications (9); Education (10); Health (10); Water Supply (10); Housing (10); Welfare of Scheduled Castes and Scheduled Tribes (11); Export Trade (11);	
<b>Chapter 2—INCOME AND EMPLOYMENT</b>	<b>13—20</b>
National Income (13); State Income (13); Per Capita Income (13); Trends in Sectoral Share of Income (13); Rate of growth-sector-wise (13); District Income (14); Population (14); Population of Scheduled Castes and Scheduled Tribes (15); Urban percentage of population (15); Sex ratio (15); Density of population (15); Decennial growth Rate (15); Birth and Death Rates (15); Expectation of Life at Birth (15); Infant Mortality Rate (15); Employment Situation (16); Employment in the Organised Sector (17); Placing Through Employment Exchanges (17); Overseas Development and Employment Promotion Consultant Limited (17); Kerala Institute of Labour and Employment (18); Kerala Employment Assistance and Self Employment (18); Kerala Unemployment Assistance Scheme (18); Self Employment Scheme. (19);	
<b>Chapter 3—PRICES AND COST OF LIVING</b>	<b>21—28</b>
Price Situation in Kerala (21); Retail Prices of Essential Commodities (21); Consumer Price Index (23); Parity Index (23); Food Situation (25); Public Distribution System (25); Procurement of Paddy (26); Kerala Civil Supplies Corporation (26);	
<b>Chapter 4—AGRICULTURE</b>	<b>29—66</b>
Crop Production (29); Farm Commodity Prices (30); Farm Input Prices (30); Climate (31); Land Use Pattern (32); Area Under Principal Crops (32); Production of Principal Crops (33); Productivity of Principal Crops (34); Rice Production (35); High Yielding Varieties of Rice (36); Development Programme (37); Kerala Agricultural Development Project (39); Kerala State Coconut Development Corporation (39); Kerala Agro Industries Corporation (39); Kerala State Warehousing Corporation (40); State Farming Corporation of Kerala (42); The Plantation Corporation of Kerala (42); Oil Palm India Limited (43); Soil Conservation (43); Soil Survey (43); Land Use Board (43); Kerala Land Development Corporation (43); Agricultural Marketing (44); Wynad Development (44); Kerala Agricultural University (45); Central Tuber Crops Research Institute (46); Central Plantation Crop Research Institute (46); Farm Information Bureau (46); Plantations (46); Rubber (46); Tea (47); Coffee (48); Cardamom (49); Land Reforms (49); Assignment of Puramboke Lands (50); Livestock Development (50); Fisheries (51); Marine Fish Production (51); Marine Products Exports (54); Inland Fisheries (54); Refrigeration Facilities (55); Fishermen Cooperatives (56); Kerala Fisheries Corporation (56); Kerala Fishermen's Welfare Corporation (56); Kerala Inland Fisheries Development Corporation (57); Fishing Harbours and Landing Centres (57); Other Programmes (57); Fishermen Population and Fishing Crafts (58); Forests (59); Forest Development Corporation (60); Forest Research Institute (60); Community Development (61);	

Chapter 4—AGRICULTURE—(Contd.)	PAGES
National Rural Employment Programme ( 61 ); Integrated Rural Development Programme ( 61 ); Training of Rural Youth for Self Employment ( 62 ); Rural Functional Literacy Programme ( 62 ); Social Inputs in Area Development ( 62 ); Extension Training Centres ( 62 ); Grama Bhoomi ( 62 ); Agricultural Credit ( 62 ); Kerala State Co-operative Bank ( 63 ); Long Term Credit ( 64 );	
<b>Chapter 5—IRRIGATION AND POWER</b>	67—76
Irrigation ( 67 ); Major and Medium Irrigation Projects ( 67 ); Minor Irrigation ( 70 ); Flood Control and Anti Sea Erosion ( 71 ); Power ( 71 ); Generation Projects ( 72 ); Idamalayar Hydro-Electric Scheme ( 72 ); Idukki Stage III ( 72 ); Sabarigiri Augmentation ( 72 ); Kakkad Hydro-Electric Scheme ( 73 ); Idukki Stage II ( 73 ); Kallada Hydro-Electric Scheme ( 73 ); Silent valley Hydro-Electric Scheme ( 73 ); Lower Periyar Hydro-Electric Project ( 73 ); Transmission ( 73 ); Distribution and Rural Electrification ( 74 ); Financial Position of the K. S. E. Board ( 74 ); Power Tariff ( 75 );	
<b>Chapter 6—INDUSTRY</b>	77—94
An Overview ( 77 ); Industrial Production ( 78 ); Working Factories and Employment ( 78 ); Central Public Sector Investment ( 78 ); Cochin Refineries ( 79 ); Fertilisers and Chemicals Travancore ( 80 ); Indian Rare Earths ( 80 ); Modern Food Industries (India) ( 80 ); Hindustan Latex ( 80 ); Indian Telephone Industries ( 81 ); Hindustan Insecticides ( 81 ); H.M.T. Limited ( 81 ); Joint Stock Companies ( 81 ); Industrial Promotional Agencies—Kerala State Industrial Development Corporation ( 82 ); Kerala Financial Corporation ( 83 ); Kerala State Public Enterprises ( 84 ); Village and Small Scale Industries ( 84 ); Small Scale Industries—Department of Industries and Commerce ( 84 ); Kerala State Small Industries Development and Employment Corporation ( 85 ); Small Industries Service Institute ( 86 ); Coir Industry ( 87 ); Handloom Industry ( 89 ); Cashew Industry ( 90 ); Kerala State Cashew Development Corporation ( 91 ); Khadi and Village Industries ( 91 ); Bamboo Industry ( 91 ); Beedi Industry ( 91 ); Mining ( 92 ); Kerala Mineral Exploration and Development Project ( 93 );	
<b>Chapter 7—TRANSPORT AND COMMUNICATIONS</b>	95—104
An Overview ( 95 ); Roads ( 95 ); Road Transport ( 96 ); Motor Vehicles Registration ( 96 ); Passenger Transport ( 97 ); Goods Transport ( 98 ); Railways ( 98 ); Air Transport ( 99 ); Inland Navigation ( 99 ); Kerala Inland Navigation Corporation ( 100 ); Ports and Harbours ( 100 ); Cochin Port ( 101 ); Tourism ( 102 ); Kerala-Tourism Development Corporation ( 102 ); Communication ( 102 );	
<b>Chapter 8—EXPORT-IMPORT TRADE</b>	105—114
India's Foreign Trade ( 105 ); Kerala's Export ( 105 ); Spices ( 106 ); Cardamom ( 107 ); Ginger ( 107 ); Turmeric ( 107 ); Pepper ( 108 ); Tea ( 108 ); Coffee ( 108 ); Cashew ( 109 ); Cashew shell liquid ( 109 ); Raw Cashew imports ( 109 ); Marine Products ( 110 ); Coir and Coir Products ( 111 ); Kerala's Imports ( 112 );	
<b>Chapter 9—SOCIAL SERVICES</b>	115—146
Education ( 115 ); General School Education ( 115 ); Higher Education (General) ( 115 ); Professional and Technical Education ( 116 ); Expenditure on Education ( 116 ); Health ( 116 ); Allopathy ( 116 ); Indian Systems of Medicine ( 118 ); Ayurveda ( 118 ); Homoeo ( 118 ); Family Welfare Programme ( 118 ); Sewerage and Water supply ( 119 ); Pollution Control ( 120 ); Water Pollution Control ( 120 ); Air Pollution Control ( 121 ); Housing ( 121 ); Board of Revenue ( 121 ); Finance Department ( 121 ); Public Works Department (B&R) ( 121 ); Police Department ( 122 ); Tribal Welfare Department ( 122 ); Harijan Welfare Department ( 122 ); Kerala State Development Corporation for SC & ST ( 122 );	

Housing Board (122); Co-operative Department (122); Fishermen's Housing Programme (123); Housing programmes of the Development Authorities (123); Greater Cochin Development Authority (123); Calicut Development Authority (124); Other Agencies (123); Kerala State Financial Enterprises (124); LIC of India (124); Urban Development (126); Town and Country Planning (127); Urban Development Programmes under Municipal Administration (128); Kerala Urban Development Finance Corporation (128); Development Authorities (129); Calicut Development Authority (129); Quilon Development Authority (129); Trichur Development Authority (129); Kottayam Development Authority (130); Palghat Development Authority (130); Mass Communication (130); Radio and Television (130); Films (130); Press (130); Publicity (131); Cultural Activities (131); Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes (131); Scheduled Caste and Scheduled Tribe population in 1981 (131); Harijan Welfare Department (133); The Kerala State Development Corporation for SC/ST (133); Welfare of Scheduled Tribes (134); Social Welfare (135); Child Welfare (135); Supplementary Nutrition (135); Health Care (135); Pre-School Education (135); Recreation (136); Women's Welfare (137); Nutrition and Health (137); Education and Training (137); Employment (137); Welfare of the Physically Handicapped (138); Education (138); Training and Rehabilitation (138); Care Homes (139); Services for Child Destitutes (139); Social Defence (139); Social Security (140); Residential care and Protection (140); Pension (140); Pension to Agricultural Workers (141); Pension to Destitutes (141); Pension to Artisans (141); Pension to Sportsmen (141); Pension to Circus Stars (141); Pension to Journalists (141); Pension to Artistes and Writers (141); Pension to Cine Artistes (141); Other Financial Relief (141); Assistance to Widows for the Marriage of their Daughters (141); Accident relief to Coconut, Palmyrah and Arecanut Tree Climbers (141); Toddy Workers' Welfare Fund (142); The Fishermen's Welfare Fund (142); Relief to T. B. Patients (142); Un-employment Relief (142); Nutrition (144);

Appendix:

149—262

## GENERAL REVIEW

## Trends in National Economy

Though the year under review was a testing time for the Indian economy, the country could maintain the tempo of planned development and also keep under check the growth of inflation when in many countries elsewhere in the world growth rates declined and sustained price stability proved elusive. The year 1981-82 registered a growth rate of 5.2 per cent thanks mainly to a foodgrains production of 133 million tonnes in that year. This level of production was achieved mainly through improvement in yields and it is reflective of the success of the basic agricultural strategy of extending irrigation together with assured supply of improved seeds, fertilizers, credit and other inputs.

1.2 During the latter half of 1982, there has however, been a decline in growth rate mainly because of the severe drought situation affecting agricultural production and the deceleration in industrial production. However, the annual rate of inflation on a point to point basis in the week ending January 15, 1983 was only 2.8 per cent which is much lower than the annual rate of inflation of 6.4 per cent during the corresponding week of last year. In a year of drought, such a degree of price stability may be described as remarkable and is indicative of the success of the supply-demand management of the economy. Major developments in the Indian economy are outlined in the ensuing paragraphs.

1.3 The rate of growth of Gross National Product (G. N. P.) in 1980-81 was 8 per cent followed by a growth of 5.2 per cent in 1981-82. For 1982-83 the GNP growth is estimated much lower at 2 per cent. This fall in growth rate has been mainly due to the unprecedented drought situation prevailing throughout large parts of the country. However the average growth rate during the first three years of the Sixth Plan is of the order of 5 per cent. This average more or less falls in line with the projected growth rate in the Plan.

1.4 The resources position of the Government has been under severe strain during 1982-83. The growth of revenue has been subdued because of the effects of drought and the deceleration in industrial production. The increase in money supply has been 14.2 per cent in 1982-83 against 10.7 per cent in the previous year. The fiscal policy in 1982-83 was directed towards maintaining the tempo of development while avoiding inflationary pressures in the economy. Emphasis was laid on raising resources for investment in a non-inflationary manner, promoting domestic savings and increasing

operational efficiency and productivity of the public enterprises.

1.5 In view of the continued strain on balance of payments position, special attention was given to encouraging investment and production for exports as well as attracting increased inflow of foreign remittances. However wide spread drought conditions during the Kharif season of 1982 and the sluggishness in the rate of industrial production have disturbed the fiscal balance during the current year. The growth in tax receipts has so far been significantly lower than what was anticipated in the budget. On the other hand there have been substantial increases in expenditure on account of drought and other natural calamities. Although overall profitability of public sector enterprises improved, the generation of internal resources in the case of certain undertakings has been adversely affected due to short-falls in production and also cost escalations. However in view of the evidence of weak demand in certain sectors and the favourable price situation, an increase in expenditure in the current year is not likely to be destabilising.

1.6 During the week ended 15th January, 1983 the annual rate of inflation in terms of wholesale price index, on a point to point basis, was 2.8 per cent compared with 6.4 per cent on the corresponding date last year. The rate of increase of consumer price index was also lower. The annual rate of inflation in terms of consumer prices came down to 8 per cent in December 1982, compared with 12.7 per cent in December, previous year. Both the supply and demand factors contributed to bringing down the rate of inflation. On the supply side the public distribution system played an important role in making available adequate quantities of essential commodities like foodgrains, sugar, and edible oils throughout the country and particularly in areas which suffered due to severe drought. The total number of fair price shops in the country is now 2.76 lakhs against 1.65 lakhs ten years ago. Despite record food procurement in 1981-82, the country had to go in for an import of 4 million tonnes of grain to meet the needs of the public distribution system.

1.7 There has been a set-back in agricultural production in 1982-83 owing mainly to unfavourable weather conditions. Agricultural production which has reached a peak in 1981-82 was affected by a severe drought. Production in this sector is therefore stated to decline by 3 per cent in 1982-83 against a rise of 5.5 per cent in 1981-82. On present reckoning the total production of foodgrains during 1982-83

may amount to 125 million tonnes as compared to 133 million tonnes in 1981-82. The break through in the case of wheat has not been matched in rice in large areas of the country while production of pulses and oil seeds continues to stagnate. Special attention needs to be given to strengthening the institutional mechanism for the flow of credit to the agricultural sector, particularly to the small and marginal farmers.

1.8 Although the overall industrial growth in 1982-83 is likely to be lower than in the previous year, there is evidence of some pick up in industrial production since September 1982. For sustained industrial growth it is necessary to reduce the price of industrial products through better capacity utilisation, cost reduction through elimination of waste and non-productive expenditure and higher investment. The level of capacity utilisation in most industries continues to be low. There is also urgent need for modernisation and more efficient production in several segments of industry so that average costs and prices can be reduced. During the first eight months of 1982-83 industrial production increased by 4 per cent. Production in the 12 month-period of 1982-83 is expected to register a growth of about 4.5 per cent compared with 8.6 per cent in 1981-82 and 4 per cent in 1980-81. The lower growth rate this year reflects sluggishness in output of several industries which achieved peak output level in the previous year. The deceleration was primarily in the manufacturing sector which registered a growth of 2.5 per cent as against 8.2 per cent during April-November 1982. The growth in key infrastructure sectors ranged between 3.5 per cent and 7.2 per cent during April-December 1982.

1.9 There was a notable improvement in the performance of public sector undertakings. During 1981-82, having achieved a growth in output of 19.7 per cent compared to 9.3 per cent in 1980-81, their output further increased by 8.9 per cent during April-December 1982 over the corresponding period of last year. The industrial groups whose output increased included minerals and metals, coal, petroleum, heavy engineering, medium and light engineering, and consumer goods. Production of crude oil output is expected to increase from 16 million tonnes in 1981-82 to 21 million tonnes in 1982-83. The output of crude oil has been estimated to touch a level of 30 million tonnes in 1983-84. Coal production recorded a continuous increase since September 1982. The 1982-83 production of coal would be around 130 million tonnes. Power availability has been a major constraint in the performance of public undertakings during the recent past.

1.10 The decentralised sector including small scale and village industries showed significant progress. The small scale sector is likely to achieve its production target of Rs. 27,500 crores during 1982-83 reflecting an increase of 6.1 per cent over the previous year when the total production stood at Rs. 25,920 crores. The production level in 1980-81 was Rs. 23,566 crores.

1.11 The number of mandays lost in 1981-82 amounted to 29.91 million as against 28.06 million recorded in 1980-81. This was mainly because of the strike in cotton textile units, coal mines, plantations and jute textile industries.

1.12 The performance of the key sectors of the infrastructure improved between April and December 1982. Coal production increased by 4.2 per cent, electricity by 7.2 per cent and revenue earnings by railways rose by 3.5 per cent on top of the increase during the same period in 1981-82. The target of electricity generation viz. 132 million KWH is likely to be achieved in 1982-83. This implies of growth of 8.2 per cent in power generated which is lower than the achievement during the previous year. While hydel generation suffered due to inadequacy of rainfall, thermal and nuclear generation was hampered by slower pace of additional capacity and prolonged closure of nuclear units at Rajasthan and Tarapore. The performance of Railways showed steady improvement during the year 1982-83. The composite index of production of infrastructure industries including electricity, coal, saleable steel, petroleum, refinery products and cement recorded an increase of 8.1 per cent during April-November 1982 compared to the same period last year.

1.13 India's balance of payments continues to be a matter of concern. Trade deficit in 1981-82 was more or less contained at the previous year's level. It is expected that the balance of payments deficit in 1982-83 would be smaller than in the previous year. The gross foreign exchange reserves are likely to show an improvement because of the drawings against the IMF loan which are likely to amount to SDR 1800 million in 1982-83.

1.14 There is need for accelerating the process of import substitution in critical areas and for increasing exports and remittances. The full impact of the rise in import prices was first felt in 1980-81 when the trade deficit amounted to Rs. 5813 crores. In 1981-82 it was contained at Rs. 5841 crores. It is expected that there will be further improvement in 1982-83. However the magnitude of the deficit is likely to be still large and therefore this is an area of concern for the economy.

1.15 Since bulk imports account for a large proportion of total imports, this area was subjected to continuous monitoring and scrutiny in 1982-83 with a view to effecting economies wherever appropriate. Substantial reductions were achieved in the imports of crude oil and petroleum products, steel, fertilizers, non-ferrous metals and edible oils which will help improve the balance of payments position in 1982-83 and in 1983-84 as well.

1.16 On the resources front, considerable efforts would have to be put in to ensure that adequate resources are available to meet



appropriate levels of plan expenditure in the remaining years of the Sixth Plan. The resource requirements of the economy are very large and it is, therefore, essential that concerted efforts continue with a view to increasing investment and improving productivity in critical sectors.

#### *Trends in Kerala's Economy*

1.17 Despite adverse circumstances created by stringent financial situation and vagaries of the monsoons, the State's economy moved forward during the year under review registering progress in different directions. On the agricultural front, the overall rice production amounted to 13.4 lakh tonnes thereby recording an increase of 5 per cent over the production level attained in 1980-81. Productivity of rice reached a record level of 1660 kilograms per hectare during the year. The industrial sector also witnessed a fresh momentum as a result of the package of incentives and the financial assistance offered by the State Government and the major financial institutions. Urgent steps have been taken for the rehabilitation of sick units by adopting a more liberalised approach in getting financial assistance. Many factories which had remained closed have since been reopened. This has contributed a good deal to the improvement of industrial climate and employment situation during the year.

1.18 The State Government has also been able to initiate and implement a number of programmes for the upliftment of the poor, the Scheduled Castes and Scheduled Tribes. It has also been possible to implement the Agricultural Workers' Pension and Unemployment Allowance Scheme which had been kept in abeyance since 1981 after modifying them suitably to ensure that the benefit reached only the deserving persons. A new self-employment programme with margin money support by the State Government and financial assistance from institutions in the nationalised and co-operative sectors has been launched to find an effective solution to the growing unemployment problem in the State.

1.19 The implementation of the New Twenty-point Programme has been taken up vigorously by the State Government. Under the IRDP, the target was to assist 86,400 families during 1982-83. Of them as many as 72,068 families have already been covered at the end of January, 1983. They include 19,145 families belonging to scheduled castes and scheduled tribes. Under the National Rural Employment Programme, as against the annual target of 75 lakh mandays, over 64 lakh mandays of employment could be created at the end of January, 1983. In respect of allotment of surplus land, rehabilitation of bonded labour and slum clearance and slum improvement work significant progress could be achieved. In 46 villages, the problem of drinking water could be solved and 6940 pumpsets could also be energised under the new programme. The physical achievements under the various items of the New Twenty Point Programme may be seen from Table 1.1.

1.20 In spite of the pressure on the food front, the overall price situation could be kept well under control. The increase in the average consumer price was 5.8 per cent in 1982 as compared with 13.9 per cent in 1981. In different Centres in the State, the price increase varied between 3.4 and 7.2 per cent. The vast network of public distribution outlets of the State Civil Supplies Corporation and Civil Supplies Department functioned effectively during the year thereby enabling to hold the price line under check.

TABLE 1.1  
*Progress of Implementation of the New Twenty Point Programme*

Particulars	Target for 1982-83	Achievement as at the end of January 1983
(1)	(2)	(3)
1. <i>Integrated Rural Development Programme</i>		
No. of Families:—		
Scheduled Castes	24,500	17,887
Scheduled Tribes	1,420	1,258
Others	60,480	52,923
Total	86,400	72,068
2. <i>National Rural Employment Programme Mandays in Lakhs</i>		
Scheduled Castes	7.0	16,204
Scheduled Tribes	0.5	2,842
Others	67.5	45,202
Total	75.0	64,248
3. <i>Surplus Land Allotted (acres)</i>	2,500	1,772
4. <i>Bonded Labour Rehabilitated (persons)</i>	387	20
5. <i>No. of Scheduled Castes and Scheduled Tribes Economically Assisted</i>		
Scheduled Castes	40,605	23,781
Scheduled Tribes	3,205	2,233
6. <i>Drinking Water Problem Solved (No. of Villages)</i>	100	46
7. <i>House Sites</i>	10,000	1,565
8. <i>Construction Assistance Provided</i>	2,500	1,140
9. <i>Slum Population Covered</i>	2,500	72
10. <i>Houses Provided for Economically Weaker Sections</i>	30,000	11,798
11. <i>Pumpsets Energised</i>	12,000	6,940
12. <i>Trees Planted (No. in lakhs)</i>	450	618.33
13. <i>Bio-gas Plants Set up</i>	2,000	337
14. <i>Sterilisation Done</i>	1,60,000	1,03,523
15. <i>Primary Health Centres Sanctioned</i>	7	3
16. <i>Sub Centres Sanctioned</i>	150	150
17. <i>Integrated Child Development Services Blocks Sanctioned</i>	9	9
18. <i>Registration of Small Scale and Village Industries</i>	4690	5575

1.21 On the financial front, the State Government had to pass through a most difficult year. At the time of its assumption of office, the State Government was burdened with an overdraft of Rs. 145 crores. As a measure of enforcing strict financial discipline on the national front, the Central Government agreed to convert the accumulated deficits of the States on 31st March 1982 into medium term loans. However, the Centre's insistence on immediate clearance of future overdrafts within stipulated periods has considerably restricted the overdraft facility of the State Government to Rs. 30 crores. This squeezing of credit facility together with an estimated direct revenue loss of Rs. 30 crores to the State resulting from the cut in power generation consequent on the unprecedented drought situation have caused great strain on the finances of the State Government. A series of economy measures have since been initiated to tide over this difficult situation.

1.22 For the first time since the commencement of the Sixth Five Year Plan, the annual plan outlay has been fixed at Rs. 320 crores for 1983-84 which is the highest approved outlay so far sanctioned by the Planning Commission to the State. The approved plan outlay in the previous two years was pegged at a level of Rs. 275 crores. It may, however, be pointed out that in implementing this larger plan outlay, the State Government would have to make every effort in minimising all non-essential and non plan expenditures on the one hand and maximising the revenue productivity on the other. This would call for action on a wide front including toning up of the working of the various Public Sector Corporations. A brief summary of the salient aspects relating to the trends in the different sectors of the State's economy is attempted in the following paragraphs.

#### *Income and Employment*

1.23 Latest available estimates of State income relate to the year 1980-81. The State income for 1980-81 at current prices works out to Rs. 3314 crores, as against Rs. 3034 crores in 1979-80, signifying a rate of increase of 9 per cent during the one year period. The per-capita income in Kerala in 1980-81 (current prices) is estimated at Rs. 1312 against Rs. 1218 in the previous year reflecting a rate of growth of 7.7 per cent.

1.24. The ranks of the unemployed in Kerala have been swelling year after year. The number of work seekers has increased from 15.79 lakhs at the end of 1980 to 19.04 lakhs at the end of 1981 and to 20.63 lakhs at the end of 1982. The percentage growth of the job seekers from 1977 to 1982 is 143. The proportion of educated work seekers (S. S. L. C. and above) has been showing a decreasing tendency from 1979. In 1982 however this trend was reversed and the percentage of educated work seekers actually rose from 48.5 per cent to 49.5 per cent during the one year

period. There has been a significant increase in the employment seekers belonging to the category of medical and engineering graduates during the calendar year 1982.

#### *Agricultural Production*

1.25 Agricultural sector in Kerala was able to withstand to a great extent the adverse impact of erratic monsoon and hikes in the prices of agricultural inputs. The overall rice production in 1981-82 was 13.40 lakh tonnes, an increase of over 5 per cent compared to the production in 1980-81. Productivity of rice reached a record level of 1660 kilograms per hectare during the year under review. However, the declining share of high yielding varieties in the total area and production in rice inspite of some increase in productivity and the declining offtake of chemical fertilizers by farmers are matters to be issued with concern. It was a poor year for the plantation sector especially coffee whose production fell by over 26 per cent. A reversal of the trend is seen in the case of pulses which had a good record in the previous year. While pulses production declined by about 5 per cent, there was marginal decline under sugarcane, pepper, ginger, cashewnut, arecanut, tapioca and sesamum. Marginal increase in production was recorded under sweet potato, groundnut and coconut.

1.26 The World Bank assisted Kerala Agricultural Development Project (KADP) which has a total outlay of Rs. 62 crores aims at improving the productivity of major foreign exchange earning tree crops in the State. Small holder farm development, establishment of seed garden complex, cashew development, rubber processing and strengthening of agricultural research are the major programmes included in the Project. Pepper rehabilitation programme, and coconut new planting programme have exceeded the targets set for the year 1981-82. Under coconut new planting the achievement has been over 170 per cent of the target fixed for the year.

1.27 The most important achievement of the Kerala State Coconut Development Corporation in 1981-82 has been the commencement of continuous three shift operations in its processing factory at Mamom. Compared to the previous year there was more than 100 per cent increase in both production and sales of coconut oil. The Mamom coconut complex crushed 4985 tonnes of copra and produced 3178 tonnes of coconut oil in 1981-82 against 2358 tonnes of copra crushed and 1518 tonnes of oil produced in 1980-81. The second processing complex at Thiruvangoor in Kozhikode is in the last stage of completion and is expected to be ready for commissioning towards the middle of 1983.

1.28 The Agro-Industries Corporation which is engaged in the direct sale and hire-purchase sale of agricultural machinery and provision of facilities for custom hiring and servicing presented a better financial performance in

1981-82. One of the recent ventures of the Corporation is the establishment of a fruit processing complex at Punalur which started commercial production in 1982. The Corporation has plans to start a pesticide manufacturing unit.

1.29 The Kerala State Farming Corporation which has run into substantial losses from sugarcane cultivation is now diversifying its activities with the objective of making itself into a viable unit. Since 1980-81 the Corporation has been engaged in planting rubber with the assistance from Central Government under the Western Ghat Development Programme. During 1982 the Corporation planted 463 hectares with rubber as against a target of 450 hectares.

1.30 The Plantation Corporation of Kerala is mainly engaged in the extensive cultivation and management of rubber and cashew plantations. It is implementing two World Bank aided cashew projects, one under Kerala Agricultural Development Project (KADP) and the other under Multi-State Cashew Development Project. The Corporation owns four factories to process the rubber latex and scrap collected from the rubber estates.

#### *Food Situation*

1.31 Despite an increase in the internal supply of rice, food situation in the State suffered some setback due to lower level of arrivals into the State. The percapita availability of food-grains declined from 312 grams per day in 1980 to 299 grams in 1981 and further to 255 grams in 1982. The fall in the production of tapioca also contributed to the shortfall in the total food availability. Further, some restrictions in the movement of rice imposed by neighbouring States also added to the difficulty. The strain on the food front pushed up the price of rice in the open market in the later months of 1982. The effective functioning of the public distribution system combined with the activities of the Civil Supplies Corporation, however, could keep under check the price escalations.

1.32 The net-work of public distribution system played a commendable role in 1982 in distributing the available foodgrains in a satisfactory manner. The average monthly offtake of rice through ration shops increased from 89,020 tonnes in 1981 to 96,627 tonnes in 1982 and that of wheat from 3655 tonnes to 4913 tonnes. There was also increase in the quantum of sugar and kerosene distributed through the public distribution system. The Kerala State Civil Supplies Corporation also effectively intervened the market through its outlets, the Maveli Stores, in 1982.

1.33 These outlets are located in key consumption centres of the State. The festival bazaars of 1982 along with the Co-operative Maveli Stores

(new retail outlets organised jointly with the Co-operative Department) have made tremendous success in holding retail prices during the festival seasons. These stores started during the 'Onam' season of 1982 are continuing to function and have become permanent. The annual turnover of the Corporation is showing improvement year after year. From Rs. 24 crores in 1979-80 the turnover has risen to Rs. 94 crores in 1980-81 and to Rs. 98 crores in 1981-82.

#### *Land Reforms*

1.34 The land reform measures implemented in the State include abolition of intermediary interests on land, conferment of the tenure and ownership rights on tenants and distribution of surplus land among the landless poor. Till the end of November 1982, a total number of 37.43 lakh tenancy cases was filed for assignment of the rights of which 37.31 lakh (99.69 per cent) cases were disposed of. The number of cases allowed was 24.95 lakhs. Till the end of November 1982, a total number of 4.48 lakh 'Kudikidappukars' filed applications for the purchase of their hutments. Out of this 4.45 lakh (99.29 per cent) cases were disposed of. The number of cases allowed was 2.75 lakhs of which 61.75 per cent was disposed of. In the case of ceiling provision and declaration of surplus land, a total of 77,691 ceiling returns were filed till the end of December 1982, out of which 74,979 returns (96.5 per cent) were decided. The surplus land distributed accounts for 54,422 acres till the end of December 1982. The extent of net 'puramboke' lands available for assignment till the end of November 1982 was 4.83 lakh acres. Out of this, 4.23 lakh acres (87.99 per cent) were assigned to 5.06 lakh beneficiary families. Among these beneficiaries, scheduled castes and scheduled tribes constituted 17.5 per cent.

1.35 The scheme of Resurvey of the State is being implemented since 1966-67 by the Survey and Land Records Department. Out of the total area of 32,510 sq. km. for resurvey in the State, the resurvey field work has been completed in an area of 17,278 sq. km. and resurvey office work in an area of 10,155 sq. km. till the end of December 1982.

1.36 Several programmes are being implemented to make available credit facilities, technical support and infrastructure facilities to the land reform beneficiaries in the State. A housing scheme is also being implemented to the ex-kudikidappukars.

#### *Co-operation*

1.37 The co-operative sector continued to be the main source of credit in the rural areas. The total amount of loans advanced during 1980-81 was Rs. 209.66 crores as against Rs. 169 crores

in 1979-80. Out of the total loans advanced 57 per cent flowed to the agricultural sector. It is estimated that 70 per cent of loans issued by the co-operatives in 1980-81 benefited the weaker sections. The percentage of borrowing members to total members showed a slight decrease during 1980-81. The net profit earned by the co-operative sector decreased from Rs. 413 lakhs in 1979-80 to Rs. 388 lakhs in 1980-81. Similar decline was also noticed in the number of societies which worked on profit during 1980-81. There was satisfactory progress in the activities of Kerala State Co-operative Bank. The net profit accrued to the Bank during 1980-81 was Rs. 43.56 lakhs as against Rs. 14.59 lakhs during the previous year. The development programmes implemented by the Kerala State Central Land Mortgage Bank during 1980-81 covered schemes under minor irrigation, land reclamation and soil conservation, cultivation of plantation and horticultural crops, dairying and fisheries.

### *Livestock Development*

1.38 During 1981-82 the supply of livestock products such as milk, meat and egg has notably increased. Milk production in the State increased from 9.08 lakh tonnes in 1980-81 to 9.50 lakh tonnes in 1981-82. This has enabled the State to achieve a per capita daily availability of 100 grams of milk against 97 grams in 1980-81. The Animal Husbandry and Dairy Development Departments continued to implement programmes of cross breeding with a view to improving genetic qualities of the livestock in the State. The emphasis laid on poultry development by the Animal Husbandry Department has helped the State to produce 980 million eggs in 1981-82 as against 962 million in 1980-81. Meat production also was high in 1981-82 at 16.9 thousand tonnes against 16.6 thousand tonnes in the previous year. The Kerala Livestock Development and Milk Marketing Board operated 14 milk chilling plants and 5 dairy plants in 1981-82 with a total installed capacity of 60 thousand litres a day. The Operation Flood II Programme which is being implemented by the newly formed Kerala Co-operative Milk Marketing Federation has entered the second year of its implementation. The Federation has organised more than 140 Anand Pattern Co-operative Societies which supply more than 22,000 litres of milk per day to the dairies.

### *Fisheries*

1.39 Kerala produced 3 lakh tonnes of fish in 1981 from both marine and inland sources. The State continues to be the foremost fish producing State in the Indian Union. Fisheries have been developed in the State as a highly organised industry employing more than 3000 mechanised boats. Among the different fish varieties produced in Kerala, it is found that the production of oil sardines has gone up significantly during 1981 compared to the previous year. Prawn fishery suffered a set back during the year.

1.40 Kerala continues to be the principal State exporting marine products from India. In 1981-82 the value of marine exports of Kerala reached an all time record of Rs. 125.12 crores (as against Rs. 95.34 crores in 1980-81). Higher export prices steady market conditions abroad and high rupee realisation per U. S. dollar are the major factors which contributed to the sharp increase in export earnings. Frozen shrimp continued to dominate the marine products of Kerala. In the overall exports of marine products, this item constituted 26,007 tonnes valued at Rs. 108.52 crores. In terms of quantity its share was 81 per cent and in terms of value its contribution was 87 per cent.

1.41 During 1981-82 inland fish production in Kerala was 26,059 tonnes. This formed about 8.7 per cent of the State's total fish production. The Inland Fisheries Corporation which was formed in February 1981 for the development of inland fisheries has formulated a number of viable schemes for utilization of inland fisheries potential in the State.

1.42 The programme implemented by the Kerala Fishermen Welfare Corporation during 1981-82 include subsidised housing scheme, financial assistance for the purchase of fishing craft and gear, assistance for marketing of fish, insurance coverage to fishermen etc. The second phase of subsidised housing scheme for traditional fishermen involving the construction of 10,000 houses with financial assistance from HUDCO and the State Government was introduced in 1981-82. During the year 5,700 houses were completed at a total cost of Rs. 1.68 crores. Also, construction of 50 houses were completed at Vizhinjam for rehabilitating the fishermen families who will be evicted from the fishing harbour project area. At Vizhinjam fishing harbour (when the first phase of construction was completed in 1980 at a cost of Rs. 1.73 crores), the second stage construction is in progress. The construction of the inner back water at Neendakara fishing harbour has been completed.

1.43 The concept of formation of fisheries villages was introduced in Kerala taking into account the fact that ordinary fisheries co-operatives will not be able to handle the fisheries development programmes successfully. So far 226 fishing villages have been formed and lists of fishermen households prepared.

### *Forests*

1.44 Forests occupy about 24 per cent of the total area of the State. The contribution of forestry sector to State income during 1980-81 was Rs. 70.24 crores as against Rs. 58.04 crores in 1979-80, the increase over the year being 21 per cent. The area under forest plantations increased to 1.47 lakh hectares in March 1982 from 1.43 lakh hectares in March 1981. Schemes under social forestry have been aimed

at making the rural people aware of their voluntary participation in forestry development. The Forest Department distributed free of cost more than 34 lakh seedlings of different tree species during 1981-82. With the technical know-how from New Zealand Government, the Forest Department has started a training centre for prevention of forest fire. Also to check encroachment cairns have been erected along the boundaries of forests.

1.45 The Kerala Wood Industries Ltd., a subsidiary of the Forest Development Corporation, has completed planting of 887 hectares till the end of 1982 under the matchwood project. The Forest Development Corporation opened firewood depots in all the districts, except Idukki, Wynad and Pathanamthitta to distribute firewood to the public at reasonable prices. The Corporation has also schemes for the development of pulpwod and cardamom.

#### *Irrigation and Power*

1.46 Till the end of March 1982, the total area brought under irrigation in Kerala was 4.66 lakh hectares (gross) which constitutes only 18.64 per cent of the total irrigation potential of the State. The total gross irrigated area built up till June 1982 through Major and Medium Irrigation Projects is 3.25 lakh hectares. During the year 1981-82 alone 9693 hectares (gross) have been added to the irrigated area by the partial commissioning of the on-going projects like Kallada, Pamba, Periyar Valley, Chitturpuzha, Kanjirapuzha, Kuttiadi and Pazhassi. An amount of Rs. 43.44 crores has been spent in 1981-82.

1.47 The estimated minor irrigation potential in Kerala is 10 lakh hectares (net) or 11 lakh hectares (gross). Till the end of March 1982, a cumulative area of 1.38 lakh hectares (net) or 1.61 lakh hectares (gross) has been brought under minor irrigation schemes at a total cost of Rs. 50.45 crores. During 1981-82 an amount of Rs. 5.45 crores was spent on minor irrigation and this enabled creation of additional irrigation potential of 7060 hectares (net) or 8406 hectares (gross).

1.48 The total investment in the State's power system as at the end of March 1982 stood at Rs. 605 crores. This constitutes about 25 per cent of the total plan expenditure incurred by the State. Power generation in 1981-82 was 5539 Mkw as against 5242 Mkw in the previous year. The per capita power consumption in 1981-82 was 115 Kwh. An amount of Rs. 72.17 crores was spent on power sector in 1981-82 against the plan outlay of Rs. 50.07 crores. The increase in expenditure was incurred on the on-going generation schemes and transmission and distribution schemes. Even then the expenditure on transmission and distribution was inadequate. This led to unsatisfactory voltage levels, high line losses, and frequent interruptions in supply. Delays in acquisition of land required for the construction of sub

stations are creating problems in the construction of sub-stations.

1.49 The failure of monsoon severely affected power generation in the State in 1982. The low intensity of rainfall resulted in meagre inflows into the hydel reservoirs. It was only 91,616 Mc. ft. during 1982 as against an inflow of 2,25,367 Mc. ft. during 1981. Consequently the State had to resort to a power cut of 20 per cent on high tension and extra-high tension consumers from December 1982. Export of power to Tamil Nadu and Karnataka was appreciably reduced from July 1982 and was almost discontinued from September 1982. Stoppage of power exports to other States and the power cut imposed on major consumers have seriously affected the financial position of the Kerala State Electricity Board.

#### *Industry*

1.50 The package of incentives and the financial assistance offered by the State Government and the major financial institutions have exerted a healthy influence on the industrial sector in 1981-82. The industrial production in the State increased by over 16 per cent in 1980-81 over the previous year. The index of industrial production increased from 160.74 in 1979-80 (base 1970=100) to 187.10 in 1980-81. Notable increase in production was recorded in the manufacture of food products, machine tools and electrical machinery. The production of textile products, silk and synthetic fibre textiles, rubber, plastics and petroleum products however witnessed marginal decrease. In 1980-81 the registered manufacturing sector recorded a growth of 15.4 per cent.

1.51 In the large and medium sector, 13 industrial units were given financial assistance by the Kerala State Industrial Development Corporation during 1981-82. Of these, three were new units and the remaining existing units taking up expansion diversification. Among the new units Wood Systems (India) Private Ltd., and United Veneers (Private) Ltd. started production during 1981-82.

1.52 The Keltron group of companies has taken up a number of diversification programmes. It has promoted a number of subsidiary and associate companies dispersed throughout the State. It has also given impetus to development of a large number of ancillary units around the manufacturing centres. In 1981-82 the production of TV Sets in its manufacturing unit increased to 16,921 compared to 1,047 in 1980-81. The sales turnover of Keltron during the year under review was over Rs. 25 crores. It is expected to be of the order of Rs. 50 crores in 1982-83.

1.53 The Kerala Textile Corporation has taken steps for starting three spinning mills with 12,000 spindles capacity each in the districts of Cannanore, Malappuram and Alleppey

under the first stage. Two other mills, one in Palghat district and another in Trivandrum District, would be taken up for implementation during the Second stage. The operations of the Knitting and Marketing Division of the Corporation improved considerably during 1981-82.

1.54 During the year under review the activities of the Kerala State Film Development Corporation were mainly concentrated on the works connected with the completion of the Studio Project and the theatres. On these projects the expenditure up to October 15, 1982 was nearly Rs. 6 crores. Though the Corporation is incurring loss at present, it is expected to earn profits when all the projects envisaged are fully commissioned.

1.55 Of the sixteen companies fully owned by the State Government, seven are managed by the Holding Company, the Kerala State Industrial Enterprises Ltd. Excepting Trivandrum Rubber Works Ltd., and the Kerala Ceramics Ltd., Kundara, the remaining five units have earned profits during 1981-82. The total value of items produced by the seven subsidiary companies in 1981-82 registered a growth of 17.2 per cent over the previous year's level. The values of production for 1981-82 and 1980-81 are Rs. 30.51 crores and 26.04 crores. Certain schemes for expansion|diversification|modernisation of the subsidiary companies are in progress. The Holding Company has adopted several measures in the field of management, finance, technology etc. These have yielded positive results in improving the performance of the Subsidiary Companies.

1.56 Among the Government owned units outside the management of Kerala State Industrial Enterprises Ltd., Steel Industries, Kerala Ltd., (SILK) Improved its working results during the year 1981-82 and earned profit against loss in the previous year. There was a reduction in the profits earned by the Kerala Minerals and Metals Ltd, (KMML) during the year compared to the previous year. The losses sustained by the Trivandrum Spinning Mills, Foam Mattings (India) Limited and Scooters Kerala Ltd., have increased during the year under review. The Kerala Automobiles Limited, Trivandrum and Malabar Cements Limited, Palghat are in advanced stages of implementation. The first phase of manufacturing 500 three wheelers in Kerala Automobiles Limited is expected to be achieved by the end of 1982-83. Trial run in the cement factory at Walayar is expected to commence by the middle of 1983.

1.57 Among the Government majority companies, Travancore-Cochin Chemicals Ltd., United Electrical Industries Ltd., Travancore Cements Ltd., Traco Cable Company Ltd., and Forest Industries (Travancore) Ltd., were working on profit during 1981-82. All these companies have shown increase in profits compared to the previous year. Special mention has to be made

regarding the performance of Travancore-Cochin Chemicals Ltd. and Travancore Cements Ltd., which have almost doubled their profits during 1981-82 compared to the previous year. Travancore Titanium Products Ltd., Transformers and Electricals, Kerala Ltd., Chalakudy Refractories Ltd. and Travancore Sugars and Chemicals Ltd. have incurred losses during the year.

1.58 Though investments of the order of Rs. 59 crores was made in Central Sector undertakings in Kerala during 1980-81, the total investment of Rs. 481.96 crores in Kerala up to the end of March 1981 was only 2.27 per cent of the all India Investment of Rs. 21172 crores. Kerala's share of Central Sector investment in industries is actually coming down during the recent years. From 2.44 per cent in 1978-79 it has come down to 2.33 per cent in 1979-80 and further down to 2.27 per cent in 1980-81. Among the Government of India Companies in the State, Cochin Refineries Ltd., Indian Rare Earths Ltd. and Modern Food Industries (India) Ltd. have substantially increased their production and profit margin during 1981-82. Hindustan Machine Tools Ltd., Kalamassery and Hindustan Latex Ltd., Trivandrum have also increased their production considerably and earned profit against losses during the previous year. Indian Telephone Industries Limited increased its production during the year and maintained its profit margin at almost the same level as in the previous year. FACT Ltd. and Hindustan Insecticides Ltd., on the other hand, incurred heavy losses in 1981-82.

1.59 During the year under review more than 3000 small scale industries were newly registered with the Department of Industries and Commerce. This has enabled creation of additional employment to the tune of 32,800. As on 31-3-1982 there were 21,977 registered small scale industrial units in the State. Of the 600 units identified as sick units, rehabilitation assistance was given to 14 units during 1981-82. The working results of the Small Industries Development and Employment Corporation indicate a total turnover of Rs. 26 crores during 1981-82.

1.60 The problem of unemployment and under employment in the traditional industries of coir, handloom and cashew continues to persist. As a result of intensive efforts for revitalising the coir industry more primary coir co-operative societies have been organised. The number of primary coir societies has increased from 415 in 1980-81 to 462 in 1981-82. These co-operatives purchased 190 million husks during 1981-82 as against 161 million during the previous year. The value of coir yarn produced by these societies increased by 38 per cent during the year. On the other hand, the

production and export in the manufacturing co-operative societies declined considerably. Owing to lack of demand there has been a continuous stockpiling of coir products. In order to tide over this problem, the Government has extended loan to the State Co-operative Coir Marketing Federation for distress purchase of coir and coir products. During the years 1980-81 and 1981-82 a total interest free loan of Rs. 85 lakhs was provided to the Federation.

1.61 The handloom sector experienced difficulties due to the increase in the price of yarn during 1981-82. About 4000 looms have been additionally brought under the co-operative fold during the year 1981-82. By the close of 1981-82 there were 43,000 looms in the co-operative sector. Production of handloom cloth in the co-operative sector during 1981-82 was 33 million metres worth Rs. 22 crores as against 30.5 million metres worth Rs. 15.25 crores in the previous year. There was slight decline in the production of cloth by Handloom Development Corporation from 15.40 lakh metres in 1980-81 to 14.17 lakh metres in 1981-82. Scarcity of raw nuts continues to be the major problem in the cashew industry rendering about a lakh of labourers unemployed during major part of the year. Over 60,000 tonnes of cashewnuts were produced internally and 28,000 tonnes imported. Cashew industry could provide employment only for about two and a half months during the year. It has been decided by the State Government to do away with the monopoly procurement of raw nuts through the Kerala Co-operative Marketing Federation during the 1983 season. Instead, a floor price has been fixed for raw cashew. The Khadi and Village Industries Board through its Special Employment Programme, created about 10,000 additional employment during the year under review.

### *Transport and Communications*

1.62 Kerala is one of those states which have made significant progress in the sphere of transport and communications. The total length of roads in the State is about 95,600 km. which works out to 376 Km. per lakh of population and 246 Km. per 100 Sq. Km. of area. Of the total length of roads in the State, Public Works Department maintains about 17,690 Km. and 840 Km. are National Highways. Though there is a well spread network of roads in the State, the major portion of this network is constituted by unsurfaced rural roads which are maintained by the panchayats.

1.63 The vehicle density in the State is high compared to most of the other states in India. Kerala had 567 vehicles per 100 Sq. Km. of area and 831 vehicles per lakh of population at the end of March 1982. The number of newly registered vehicles in 1981-82 was 18,638 compared to 16,256 in 1980-81. The State could collect over Rs. 21 crores through Motor Vehicles Taxes

during the year under review. But the cumulative arrears of tax under Motor Vehicles Tax as at the end of March 1982 comes to nearly Rs. 22.3 crores. The Kerala State Road Transport Corporation, which possesses only about 30 per cent of the total number of passenger vehicles in the State, recently increased its fleet strength from 3112 to 3182. The Corporation employs about 29,700 persons and of these over 17,500 belong to the traffic branch. The total capital invested in the Corporation at the end of March 1982 was Rs. 55 crores. But the accumulated loss of the Corporation as on March 1981 stood at Rs. 50 crores.

1.64 The State has a total railway network of 916 km. consisting of 113 km. of metre-gauge and 803 km. of broad-gauge lines which works out one of the lowest route length per capita among the states (3.6 km. per lakh of population). The Ernakulam-Alleppey broad-gauge line under construction will add another 57 km. to the route length. During 1981-82 considerable improvements were provided in the railway passenger services in the State.

1.65 Air transport services in the State has assumed significance during the recent past especially with the inauguration of daily direct flights by Air India from Trivandrum to Gulf Countries. The present passenger capacity for Air India Service is 142 seats per flight and the cargo capacity 4 to 5 tonnes. The Indian Airlines operates the Trivandrum-Bombay air bus service and Trivandrum-Trichy|Madras|Boeing 737 service. Also international services to Colombo and Male are operated from Trivandrum. Considering the heavy traffic developing in Northern Kerala, the construction work relating to Calicut airport has to be completed urgently. During 1981-82 a total of about 4.3 lakh passengers were carried from the Trivandrum and Cochin airports as compared to about 3.8 lakh passengers in the previous year.

1.66 Inadequacy of infrastructure facilities stand in the way of better utilisation of the intermediate and minor ports of Kerala. Out of the fourteen minor and intermediate ports in the State there was significant traffic in 1981-82 only through the ports of Neendakara, Calicut and Azikkal. During the year, 2.5 lakh tonnes of cargo was handled at these ports against 1.9 lakh tonnes in 1980-81. It is the major port of Cochin that continues to play a dominant role in both foreign and coastal trade. A record traffic of 55 lakh tonnes was handled at this port in 1981-82 as against 52 lakh tonnes in 1980-81.

1.67 Despite competition from road transport, inland water transport is still playing a useful role in the transportation of goods and passengers. The total navigable route in the State is about 1900 km. West Coast Canal which is the main canal (length 560 km.) has maximum traffic in the portion between Quilon and Cochin. The State Water Transport Department, the Kerala Inland Navigation Corporation, and Kerala State

Road Transport Corporation and the Public Works Department are involved in the development and use of the inland navigation routes in the State.

1.68 In communication facilities Kerala is quite advanced compared to several other States in India. Each post office in Kerala serves an area of 8.39 sq. km. and a population of 5482 on an average. The number of telephone exchanges in the State increased from 436 in April 1981 to 491 in April 1982 with an equipped capacity of about 1.1 lakh lines. The density of telephones in Kerala is 3.12 per sq. km. compared to 0.85 in India as a whole. The formation of the Calicut Telephone District in September 1981 is a milestone in the development of telecommunications in the State.

### *Education*

1.69 The literacy rate in Kerala increased from 60.42 per cent to 70.42 per cent during the decade 1971-81. The all India rate in 1981 was only 36.03 per cent. The per capita expenditure on education in the State increased from Rs. 84.14 in 1980-81 to Rs. 97.06 in 1981-82. It is expected to go up to Rs. 103.08 in 1982-83. The all India per capita expenditure is less than half of what it is in Kerala, viz., Rs. 48 in 1981-82. Of the total expenditure on education in Kerala about 55 per cent is on primary education and 27 per cent on secondary education.

1.70 The total enrolment of students in schools decreased from 56.51 lakhs in 1981-82 to 56.46 lakhs in 1982-83. This is mainly due to the reduction in enrolment of students in Standard I. At the end of 1981-82, there were 11,665 schools of which 2075 were high schools, 2779 upper primary schools and 6811 lower primary schools. In view of the necessity for providing schooling facilities in educationally backward areas, the State Government has sanctioned the opening of 226 schools in 1982-83.

1.71 Sanction has been accorded in 1982-83 to start eight arts and science colleges—6 under private management and 2 under Government sector. Of the 170 arts and science colleges in the State, 99 are under the Kerala University and 71 are under Calicut University. The enrolment in colleges which stood at 2.42 lakhs in 1980-81 had gone up to 2.68 lakhs in 1981-82. The enrolment at the pre-degree level increased from 1.49 lakhs in 1980-81 to 1.66 lakhs in 1981-82.

### *Health*

1.72 Kerala has a fairly extensive network of medical institutions. There were 968 allopathic institutions in the State in 1981-82 with a bed strength of 30,254. The number of beds per lakh of population works out to 119. The major recommendations of the High Power Committee on Health Services (Dr. Pai Committee) are being implemented in the State. With the conversion of the Medical College Hospital, Trivandrum into a referral hospital the quality

of service has improved considerably. The Second Dental College in the State was started in August 1982 at Calicut attached to the Medical College Hospital there. A noteworthy achievement of the State has been the establishment of at least one dispensary (ayurvedic, allopathic or homoeopathic) in every panchayat. In 1981-82 the status of the ayurveda hospital at Varkala was raised to that of a district hospital by providing more beds. The total number of institutions under the Indian system of medicine rose from 504 in 1980-81 to 531 in 1981-82. The number of registered medical practitioners under different systems of medicine in the State increased from 28,136 in 1980-81 to 29,909 in 1981-82. The increase of medical practitioners under modern medicine was quite significant during the year. The aggregate expenditure on health including the cost of family welfare schemes increased from Rs. 51.89 crores in 1980-81 to Rs. 53.13 crores in 1981-82. The per capita expenditure on medical and public health in Kerala was Rs. 20.63 in 1978-79 compared to the all State's average of Rs. 14.14.

### *Water Supply*

1.73 The decade 1981-90 has been declared as the "International Decade for Water Supply and Sanitation". In view of the higher targets set for this decade efforts are being made to secure loan assistance from the World Bank and bilateral assistance from countries like Netherlands. Though Kerala is ahead of several other States in the matter of water supply, safe drinking water is available only to 63 per cent of the urban and 29 per cent of the rural population in the State. Kerala's achievement in this sector has been largely confined to the urban regions. By the end of 1981-82, 995 rural water supply schemes, 33 urban water supply schemes and 2 urban sewerage schemes were in operation in the State. In addition 483 rural water supply schemes, 9 urban water supply schemes and 5 urban sewerage schemes were under various stages of execution by the end of 1981-82. Loan assistance from the Life Insurance Corporation of India is a major source of finance for the sewerage and water supply programmes in the State. Thirty-one out of 33 urban water supply schemes and 186 out of 995 rural water supply schemes in operation in the State were financed by the Life Insurance Corporation of India at one stage or other. The Life Insurance Corporation assistance for urban water supply schemes during 1981-82 was Rs. 187 lakhs and that for rural water supply schemes Rs. 86.7 lakhs.

### *Housing*

1.74 Several agencies like the Board of Revenue, P. W. D., Police Department, Housing Board, the Tribal Welfare Department, Harijan Welfare Department, Co-operative Department and Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes are involved in house construction programmes in the State. In 1981-82 the total number of houses



constructed under the various housing schemes in the State was 37,270 at a total cost of Rs. 37.50 crores. The Housing Board is the major agency in the field of housing in the State. The Board implements its programmes under three categories, viz., public housing schemes, housing loan schemes and special schemes. It has taken up 51 public housing schemes involving the construction of 62,243 houses for different categories of people. The schemes of the Board are financed mainly by the Housing and Urban Development Corporation (HUDCO) loan assistance. The State Government provides seed finance by way of public borrowing. Of the 51 public housing schemes, 9 were taken up in 1980-81. A major step taken up for arresting the present rising trend in urban land value is the Advance Registration Scheme for development plots/plot with house/apartment under its public housing scheme. As on 1981-82 over 8000 persons have registered their names under this scheme.

#### *Welfare of Scheduled Castes and Tribes*

1.75 The large majority of scheduled castes and scheduled tribes in Kerala are still below the poverty line in spite of the special programmes formulated and implemented for their welfare during the recent past. The population of scheduled castes and scheduled tribes together in the State is 28.11 lakhs in 1981 as against 20.41 lakhs in 1971. This means an increase of 37.68 per cent compared to the general population growth rate of 19.24 per cent for the decade 1971-81.

1.76 As suggested by the Government of India 'Special Component Plans' are being formulated setting apart at least 10 per cent of the development outlay exclusively for the benefit of scheduled castes and scheduled tribes. This has resulted in the allocation of larger outlays for the development of this sector. Under the Special Component Plan for scheduled castes an expenditure of Rs. 16.15 crores was incurred during 1981-82 as against Rs. 14.63 crores in

the previous year. The approved outlay for 1982-83 is Rs. 20.38 crores.

1.77 At least 30 per cent of the families to be benefited under the Integrated Rural Development Programme is proposed to be drawn from scheduled castes and scheduled tribes. The I. R. D. P. assistance extended to 19,594 scheduled castes/scheduled tribes beneficiaries in 1981-82 as against 10,317 in the previous year. The number of beneficiaries belonging to this group formed nearly 29 per cent of the total number of I.R.D.P. beneficiaries.

1.78 In 1981-82 a total amount of Rs. 2.90 crores has been spent on tribal development programmes falling under plan and non-plan schemes, centrally sponsored schemes and special central assistance. The Government has enacted the legislation for the abolition of bonded labour system. So far 829 bonded labourers have been identified in the State, particularly, Wynad area. Seventy-two bonded labourers were rehabilitated in 1981-82 bringing the total number of rehabilitated bonded labourers to 447.

#### *Export Trade*

1.79 Kerala's contribution to India's total exports is sizeable. The exports from Kerala, consist mainly of traditional commodities like pepper, cashew kernels, tea, coffee, ginger, marine products, turmeric, cardamom and coir and coir products. There has however been a reduction in the volume of exports during recent years. One of the major causes for the decline in our exports has been the persistence of world wide recession. This has had an adverse effect on the State's agricultural economy which is mainly plantation-oriented. The declining trends in our exports have resulted in the terms of trade becoming unfavourable to the farming community. This is borne out by the fact that parity price index during the last three years has been showing a downward trend.

## CHAPTER 2

### INCOME AND EMPLOYMENT

#### *National Income*

According to the quick estimates of Central Statistical Organisation, National Income for the year 1980-81 stands at Rs. 106539 crores at current prices and Rs. 47490 crores at constant (1970-71) prices as against Rs. 88372 crores and Rs. 43922 crores respectively during the year 1979-80. High rate of growth of national income at current prices of 20.6 per cent against 8.1 per cent in real terms is due to price rise of about 11 per cent during the year 1980-81. The per-capita income in real terms is estimated at Rs. 700 for 1980-81 as against Rs. 663 in 1979-80 showing an increase of 5.6 per cent, the remaining increase in national income having been neutralised by the increase in population. The corresponding per capita income at current prices works out to Rs. 1571 in 1980-81 as against Rs. 1333 in 1979-80. This showed a rate of growth of 17.9 per cent. The substantial increase in national income during 1980-81 was due to the marked improvement in the performance of the agricultural sector.

#### *State Income*

2.2 The State Income of Kerala for the year 1980-81 stands at Rs. 3314 crores at current prices and Rs. 1490 crores at 1970-71 prices. Compared with the year 1979-80, there is an increase in income of 9.2 per cent at current prices and 1.5 per cent at constant prices. The corresponding figures for 1979-80 were Rs. 3034 crores and Rs. 1468 crores respectively, showing a rate of growth of 12.8 per cent and (--) 0.1 per cent over the previous year. Higher rate of growth observed in 1979-80 in terms of current prices is mainly due to the higher rate of increases in prices of commodities compared to the price increase in 1980-81. Taking the last two years the rate of growth of current income relating to Kerala is far better than national income.

#### *Per Capita Income*

2.3 The per capita state income for the year 1980-81 is estimated at Rs. 1311.83 at current prices and Rs. 589.80 at constant prices recording an increase of 7.7 per cent and 0.1 per cent over the previous year's estimates of Rs. 1217.70 and Rs. 589.23. The corresponding growth rate in per capita real national income during 1980-81 is 5.3 per cent. These figures show a higher rate of growth of per capita state income than that of

the national income. The estimates of the total and per capita income of Kerala and India are given in the Table 2.1.

TABLE 2.1  
*State Income and National Income in 1979-80 and 1980-81*

Item	Kerala		India	
	1979-80	1980-81	1979-80	1980-81
(1)	(2)	(3)	(4)	(5)
Net Domestic/Net National Product	3034	3314	88372	106539
At Current Prices (Rs. crores)		(9.23)		(20.6)
At 1970-71 prices (Rs. crores)	1468	1490	43922	47490
		(1.50)		(8.1)
Per capita income at current prices (Rs.)	1218	1312	1333	1571
		(7.72)		(17.9)
At 1970-71 prices (Rs.)	589	590	663	700.00
		(0.16)		(5.6)

*Note:* Figures in brackets give percentage rate of growth over previous year.

*Source:* 1. Directorate of Economics and Statistics, Kerala.  
2. Central Statistical Organisation, New Delhi.

#### *Trends in the Sectoral Share of Income*

2.4 The share of the primary sector in the State Income at 1970-71 prices declined by 9.92 per cent (from 51.77 per cent to 41.85 per cent), whereas the secondary and tertiary sectors increased their shares by 3.46 per cent and 6.46 per cent respectively. At current prices also the primary sector showed a decline of 7.55 per cent, while the secondary and tertiary sectors increased their shares by 5.7 per cent and 2.48 per cent respectively. Similar trend is also seen in the case of national income.

#### *Rate of Growth—Sector-wise*

2.5 At current prices the state income of Kerala recorded substantial increases under all sectors during 1980-81 over the previous year. The secondary sector in the State has the highest rate of growth of 14.8 per cent followed by 8.65 per cent in the primary sector and 6.5 per cent in the tertiary sector. Within the primary sector 'fishing' had the highest rate of growth of 21.97 per cent. Sector-wise contribution of net domestic product of Kerala and All India for the year 1970-71 and 1980-81 at current and constant prices is given in Table 2.2.

TABLE 2.2  
Sectoral Contribution of Net Domestic Product—Kerala and All India

Sector	(Per cent)					
	Kerala			India		
	1970-71	1980-81		1970-71	1980-81	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Primary	51.77	41.85	44.22	50.1	42.54	39.95
2. Secondary	17.09	20.55	22.16	19.7	21.11	23.00
3. Transport, Communication and Trade	13.61	12.91	14.66	15.8	18.47	21.16
4. Finance and Real Estate	3.67	6.91	5.07	4.9	5.66	5.56
5. Community and Personal Services	13.86	17.78	13.89	9.5	12.22	10.33
6. Tertiary Sector (3+4+5)	31.14	37.60	33.62	30.2	36.35	37.05
Total: Net Domestic Product	100.00	100.00	100.00	100.00	100.00	100.00

### District Income

2.6 District income at current and constant prices during the year 1970-71 and 1980-81 is shown in Appendix 2.1. Quilon district had the highest share in the total net domestic product up to 1976. Ernakulam district had the second place. By 1980-81, the position had changed and Ernakulam district gets the first rank. Quilon district had only the fourth place, second and third place being for Kozhikode and Cannanore districts respectively.

2.7 Per capita income of a district may be taken as an indicator of the level of development of that area. Appendix 2.2 gives the estimates of per-capita income of the districts in the State in 1970-71 and 1980-81. In 1970-71, Ernakulam district had the highest per capita income followed by Kottayam and Quilon districts. In 1980-81 also, Ernakulam district maintained its primary position at constant and current prices. Compared to 1970-71, the position of Trivandrum, Trichur, Malappuram, Palghat and Alleppey districts has not improved in 1980-81.

2.8 The percentage shares of the district income originating from primary, secondary and tertiary sectors during 1970-71 and 1980-81 are presented in Appendix 2.3. The shifts in the percentage shares of the three sectors of the economy in the domestic product of the various districts reveal that the shares of the primary sector declined in all districts during 1970-81. The share of the primary sector in the state income decreased by 7.55 per cent. Secondary sector has the lowest share in the net domestic product of the State. Idukki district continues to be the most industrially backward district. The share of the tertiary sector is highest in Alleppey district.

### Population

2.9 According to the 1981 Census the total population of Kerala was 254.54 lakhs consisting of 125.28 lakh males and 129.26 lakh females. During the last decade (1971-81) the growth rate of population in Kerala was 19.24 per cent. Kerala's population in 1981 was 3.72 per cent of India's population as against 3.89 per cent in 1971. The district-wise population in 1981, sex ratio, growth rate and density of population are presented in Table 2.3. The population in 1982 is estimated at 259.43 lakhs.

TABLE 2.3  
District-wise Distribution of Population, Sex-Ratio, Growth Rate and Density of Population-1981

District	Population 1981 (in lakhs)	Sex Ratio (Females per 1000 males)		Density of population per sq. km.		Decadal growth rate of population	
		1971	1981	1971	1981	1961-71	1971-81
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Trivandrum	25.96	1008	1030	1003	1184	+26.03	+18.08
2. Quilon	28.14	1001	1026	522	609	+83.93	+16.61
3. Alleppey	23.50	1028	1050	1129	1248	+17.73	+10.56
4. Kottayam	16.97	991	1001	698	770	+17.13	+10.29
5. Idukki	9.72	937	963	151	192	+31.95	+26.91
6. Ernakulam	25.35	988	998	899	1053	+27.38	+17.18
7. Trichur	24.39	1081	1100	702	805	+26.09	+14.60
8. Palghat	20.44	1056	1056	384	456	+23.06	+21.30
9. Malappuram	24.02	1041	1052	505	677	+33.80	+29.42
10. Kozhikode	22.45	1004	1020	787	957	+29.81	+23.25
11. Wynad	5.56	922	949	195	260	+50.35	+33.87
12. Cannanore	28.03	1022	1034	451	565	+32.29	+25.39
State	254.54	1016	1032	549	655	+26.29	+19.24

Source: Census of India, 1981, Final Population Totals, Series 10, Kerala, Paper III of 1981.

### *Population of Scheduled Castes and Scheduled Tribes*

2.10 1981 Census results show that there were 28.11 lakh scheduled castes and scheduled tribes in Kerala. In 1971 the scheduled caste/scheduled tribes population was only 20.42 lakhs. Thus the percentage increase in S.C./S.T. population in the last decade was 37.68. This is nearly double the overall growth rate of Kerala's population in the same decade.

2.11 In Kerala, majority of the S.C./S.T. population is scheduled castes (there are 25.49 lakhs scheduled castes and 2.62 lakhs scheduled tribes). The scheduled caste population is 10.02 per cent of the total population and scheduled tribe population is 1.03 per cent. The corresponding all India figures are 14.6 per cent and 6.94 per cent respectively.

### *Urban Population*

2.12 The urban population in Kerala has increased from 16.24 per cent in 1971 to 18.74 per cent in 1981 as against 20.22 per cent and 23.71 per cent respectively for India. Kerala's share of urban population of India was 3.03 in 1981 as against 3.24 per cent in 1971. Kerala ranked eleventh with respect to the above percentage. This is an indication of slower rate of urbanisation in Kerala. The urban content of the population of the states is given in the Appendix 2.9.

### *Sex Ratio*

2.13 Among the Indian states, Kerala continued to have the highest sex-ratio of 1032 females per thousand males in 1981 as against 1016 in 1971. There were only 935 females per thousand males in the country as a whole. Within the State, Trichur district maintained its position with the highest sex-ratio of 1100 females per thousand males as against 1081 in 1971. The lowest sex-ratio was obtained in Wynad district with 949 females per thousand males in 1981 as against 922 in 1971.

### *Density of Population*

2.14 Among the Indian states, Kerala has the highest density of population with 655 persons per sq. km. as against 549 in 1971. It was 558 per sq. km. in rural areas and 2669 per sq. km. in urban areas. In the country as a whole, there were only 221 persons per sq. km. as against 177 in 1971. Alleppey district has the highest density of 1248 persons per sq. km. and the lowest density of 192 persons was found in Idukki district.

### *Decennial Growth Rate*

2.15 The growth rate of population in Kerala decreased to 19.24 per cent during 1971-81 from

26.29 per cent during 1961-71. In India as a whole the growth rate has shown only a marginal reduction in the decade 1971-81 (from 24.75 per cent to 24.43 per cent in 1971-81). The maximum fall in growth rate in the decade was found in Wynad district (ie., from 50.35 per cent in 1961-71 to 33.87 per cent in 1971-81). In Palghat district the growth rate fell from 23.06 per cent in 1961-71 to 21.30 per cent in the succeeding decade. The lowest growth rate was in Kottayam district (10.29 per cent) and Wynad district had the highest growth rate (33.87 per cent).

### *Birth and Death Rates*

2.16 Estimated crude birth and death rates for Kerala were declining from 1970 to 1979. In 1979 however these rates showed an increase. Thereafter both rates began to show a decreasing trend. While the all India death rate is 14 per thousand population, Kerala has only 6 deaths per thousand population. Birth rate of Kerala is also very low compared to other states (24 births per thousand population as against Indian's birth rate of 33 per thousand population).

### *Expectation of Life at Birth*

2.17 Life expectancy in Kerala is fairly high with 65.35 years in 1979 (males 63.82 and females 66.91 years) which is better than the all India average of 50 years.

### *Infant Mortality Rates*

2.18 Infant mortality rates have been decreasing during the last two decades due to the improvement in maternity and child care facilities in Kerala. Innoculations and immunisation programmes have been successfully implemented in the past decades. The infant mortality rates of Kerala are given in Table 2.4.

TABLE 2.4  
*Infant Mortality Rates—Kerala*

Year	Infant Mortality Rates (Rural)
(1)	(2)
1966	68.3
1970	52.6
1975	57.3
1976	56.3
1977	50.1
1978	42.6
1979	48.5
1980	42.5
1981	39.1

Decadal fall in infant mortality rate is found to be significant during 1971-80.

### Employment Situation

2.19 Live register figures, maintained by the employment exchanges which is the only regular source of data regarding employment and unemployment in Kerala, show that the problem has been worsening during the last decade, especially after the year 1977. The percentage growth of total work-seekers from 31-12-1977 to

31-12-1982 was 142.9. There were 20.63 lakh work-seekers at the end of December 1982. Although there was only a marginal rise of 1.59 lakhs during 1981-82 compared to the previous years, the large number of work seekers makes the situation very grave. The distribution of work-seekers in Kerala by educational levels is given in Table 2.5.

TABLE 2.5

*Distribution of Work-seekers in Kerala by Educational levels*

Period of Survey	Total Work Seekers	Below S.S.L.C.	Percentage to Total work seekers	S.S.L.C.	Pre-Degree	Graduate	Post Graduate	S.S.L.C. and above	% to Total Work Seekers
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
31-12-1970	293754	115504	39.25	151279	7469	17707	1994	178450	60.75
31-12-1971	367381	166305	45.27	167814	10168	20841	2223	201076	54.73
31-12-1972	453914	194848	42.93	218880	16457	20396	3333	259066	57.07
31-12-1973	523882	239921	45.80	226783	18965	34327	4156	283961	54.20
31-12-1974	587935	274620	46.80	252423	20075	36947	3870	313315	53.20
31-12-1975	691242	331628	47.98	281989	28329	44456	4840	359614	52.02
31-12-1976	753579	344461	45.71	315552	38176	49749	5641	409118	54.29
31-12-1977	849378	391954	46.13	351211	46830	53037	6346	457424	53.85
31-12-1978	1052652	494935	47.02	434192	56641	57816	9068	557717	52.98
31-12-1979	1249372	575366	46.00	530742	70342	64365	8567	674016	54.00
31-12-1980	1579164	765141	48.45	658652	79310	67841	8220	814023	51.55
31-12-1981	1903719	979830	51.47	748898	90254	77694	7043	923889	48.53
31-12-1982	2063148	1040960	50.45	832233	101209	82127	6619	1022188	49.55

2.20 The proportion of educated work-seekers (S.S.L.C. and above) has been showing a decreasing tendency in the past whereas the percentage of uneducated work-seekers has been steadily rising. But in 1982, the percentage of educated work-seekers actually rose from 48.53 per cent in 1981 to 49.55 per cent and that of uneducated work-seekers went down from 51.47 per cent in 1981 to 50.45 per cent in 1982.

2.21 Table 2.6 shows the number of professional and technical work-seekers on the Liv. Register. There has been a significant increase in the numbers of medical and engineering graduate work-seekers during the year 1981-82. The number of diploma holders in engineering declined marginally and that of I.T.I certificate holders remained at the same level.

TABLE 2.6

*Number of Professional and Technical Work Seekers*

Period Ending	Medical Graduates	Engineering Graduates	Diploma holders in Engineering	I.T.I Certificate holders	Agricultural Graduates	Veterinary Graduates
(1)	(2)	(3)	(4)	(5)	(6)	(7)
31-12-1970	281	1852	3547	8380	133	70
31-12-1971	405	2068	3450	9894	128	116
31-12-1972	654	2014	4163	11540	101	52
31-12-1973	902	2135	3896	10003	80	40
31-12-1974	726	1450	3611	16888	Nil	Nil

(1)	(2)	(3)	(4)	(5)	(6)	(7)
31-12-1975	809	1850	3990	20113	32	117
31-12-1976	696	1752	4009	20747	29	75
31-12-1977	490	1784	3585	21376	78	32
31-12-1978	668	1755	4305	23821	58	55
31-12-1979	691	1395	5507	26345	59	63
31-12-1980	871	1505	6833	29973	106	17
31-12-1981	651	1217	7866	33569	103	14
31-12-1982	796	1417	7546	33403	102	15

### Employment in the Organised Sector

2.22 Quarterly data on employment in the organised sector of the economy, collected by the Employment Market Information Programme (EMI) is given in Table 2.7. There has been a marginal decrease in organised employment during the year resulting from a little increase in public sector and a decrease in private sector employment, over the last decade, however the share of public sector in organised employment is increasing steadily. The percentage of public sector employment increased to 50.26 by the end of June 1982 from 41.7 per cent as at the end of December 1970 whereas private sector employment decreased to 49.74 per cent from 58.27 per cent during the same period.

TABLE 2.7

#### Employment in the Public and Private Sector in Kerala

Period ending	Public Sector	Private Sector	Total
(1)	(2)	(3)	(4)
31-12-1970	2,93,318	409,562	702,880
31-12-1971	3,33,257	415,105	748,382
31-12-1972	3,43,837	423,008	766,845
31-12-1973	3,65,445	413,230	778,675
31-12-1974	3,75,943	414,477	790,420
31-12-1975	4,18,151	462,712	880,863
31-12-1976	4,38,183	483,610	921,793
31-12-1977	4,56,607	496,035	952,642
31-12-1978	4,71,394	510,206	981,600
31-12-1979	4,85,591	511,619	997,210
31-12-1980	4,96,659	526,459	1,023,118
31-12-1981	5,16,478	528,309	1,044,787
*31-12-1982	5,23,950	518,500	1,042,450

\*Provisional.

### Placements through Employment Exchanges

2.23 The maximum number of 39594 placements by employment exchanges was done in the year 1980. In 1982, till October, 15567 placements

have been made by the exchanges. During this period on an average 602 employers used the services of employment exchanges in Kerala. (See Table 2.8),

TABLE 2.8

#### Number of Placings Through the Employment Exchange in Kerala

Year	Number of Placings	Monthly average number of Employers using the Employment Exchange
(1)	(2)	(3)
1970	17,939	563
1971	16,537	563
1972	14,574	395
1973	13,238	463
1974	19,467	528
1975	23,878	546
1976	22,218	576
1977	16,272	501
1978	13,323	496
1979	19,265	711
1980	39,594	815
1981	19,983	928
*1982	15,567	602

\*Provisional (ie. figures from January-October 1982 only).

### Overseas Development and Employment Promotion Consultants Limited, Trivandrum (ODEPC)

2.24 This is a private limited company fully owned by the Government of Kerala which provided placement services abroad since its formation in 1977. For the smooth and efficient functioning of the Company, they have a statistical wing which collects, compiles and presents data regarding skilled, semi-skilled and unskilled labour. The following table gives the country-wise deployment of personnel by ODEPC.

*Country-wise Deployment of Personnel by ODEPC*

Country	Number of persons deployed as on			
	31-12-1979	31-12-1980	31-12-1981	31-12-1982
(1)	(2)	(3)	(4)	(5)
1. Libya	199	199	216	216
2. U.A.E.	169	169	169	169
3. Doha-Qatar	213	214	214	237
4. Singapore	50	50	50	50
5. Kuwait	276	276	355	355
6. Maldives	8	8	8	8
7. Mozambique	23	23	23	23
8. Bahrain	..	30	30	40
9. Nigeria	..	1	1	1
10. Saudi Arabia	..	..	125	194
11. Iraq	..	..	110	158
12. Mascot	..	..	..	88
13. Dubai	..	..	..	2
Total	938	970	1201	1441

2.25 Compared to 1981 there was an increase in the number of persons of all categories together, who got foreign employment through the ODEPC. The Company was able to place in employment abroad 1441 persons in 1982 as against 1201 in 1981. Persons belonging to almost all kinds of occupations were beneficiaries of the Company. They include doctors, engineers, nurses, technicians, drivers, unskilled workers etc.

*The Kerala Institute of Labour and Employment*

2.26 The Kerala Institute of Labour and Employment is an autonomous body sponsored by the Government of Kerala and registered under the Travancore-Cochin Literary, Scientific and Charitable Societies Act, 1955 on 4th February 1978. The important functions of the Institute are—

(i) building up of basic infrastructure, through the organisation of resources and facilities for the conduct of training programmes, library, and research activities;

(ii) organisation and administration of specific training programmes, seminars, conferences, etc.; and

(iii) documentation of books and periodicals on industrial relations, employment, unemployment and related fields.

2.27 During the year 1982 the Institute organised the following training programmes.

(i) Four days training programme in February 1982 to the Section Officers of Labour Department in the Secretariat on "Departmental functions of Labour Department, Employment and Training Department, Factories and Boilers Department etc."

(ii) Eight days training programme in March 1982 to the Assistant Labour Officers on "Effectiveness of Enforcement Functions".

(iii) Six days training programme to the Assistant Engineers of Kerala State Electricity Board in December 1982 on 'Labour and Industrial Relations'.

2.28 Altogether thirty six officers attended the training programmes. A detailed study on "Paid Holidays Available to the Industrial Workers of Kerala" was undertaken during the year and the report is ready for publication. A case study on "Headload Workers' Strike at Trichur in August-September 1981" was published in July 1982. A seminar on "Proposed Amendment on Labour Legislation" was conducted at Trivandrum on 31st July 1982. The Institute has also developed a library. During the year a research project was started on working of the Industrial Relations Committees in Kerala with special reference to Coir, Plantation and Agriculture. The Institute has started a monthly publication "KILE NEWS" from February 1982 onwards. Plans are a foot to extend the field of training to other departments as well as Industrial establishments on various aspects of labour and employment.

*Kerala Employment Assistance and Self-Employment*

2.29 Government of Kerala have issued order Vide G. O. (P) No. 40/82/LBR dated 12-11-1982 to implement the Kerala Unemployment Assistance and Self-employment Scheme, 1982. The scheme envisages payment of unemployment assistance at the rate of Rs. 50 per month to every eligible person. For those who propose to start self-employment ventures assistance in lump for one year (Rs. 600) will be paid in advance. The details of the schemes are given below.

1. *Kerala Unemployment Assistance Scheme*

2.30 S. S. L. C. passed registrants of Employment Exchanges having a family income of less than Rs. 4000 per annum and remaining unemployed for the past three years and between the ages of 18 and 35 years as on 1-1-1982 are eligible for the assistance under the scheme. However, in respect of Scheduled Caste/Scheduled Tribe applicants, it is enough if they have appeared for the S. S. L. C. Examination. Students are excluded from getting benefits under the scheme. About 162000 applications were received in the Employment Exchanges. After verification eligible applicants will be given bi-monthly allowance of Rs. 100 from November 1982 onwards.

## 2. *Self-Employment Scheme*

2.31 Under this scheme, any unemployed person irrespective of educational qualification and between the ages of 18 and 40 years is eligible for the benefits, all other conditions remaining the same as in the case of Unemployment Assistance Scheme. About 81,000 applications have been received. After verification, the

applications are processed and presented before the District Committee concerned for their consideration. The Committee will forward eligible cases with its recommendations to the banks concerned for their consideration. The seed money of Rs. 600 for each beneficiary will be deposited, in the beneficiaries account on receipt of intimation regarding the feasibility of the project from the bank concerned.



## CHAPTER 3

### PRICES AND COST OF LIVING

The average wholesale price index of agricultural commodities in Kerala showed a marginal decline of 1.6 per cent during the year 1982 compared to the previous year. (See Table 3.1 and Appendix 3.6). A group-wise examination shows that there has been a substantial fall (over 30 per cent) in the index relating to molasses in 1982. While plantation crops, condiments and spices and fruits and vegetables exhibited nominal increase in prices, there was slight decline in the indices relating to food crops, oil seeds and non-food crops. The wholesale price index of food-grains (rice) was steady at 318.7 since 1975.

3.2 The monthly indices of wholesale prices of agricultural commodities for 1982 (upto November) are presented in Appendix 3.5. The price index for molasses has increased over the year. The index showed a downward trend till May 1982, shot up in June 1982 and came down in the month of July, August and September. In November the prices of this commodity again increased sharply. The price of the group 'Condiments and Spices' showed an increase of about 68 per cent in July 1982 compared to January 1982. However in November 1982, the index came down to the level lower than that of January 1982. The index relating to the group 'fruit and vegetables' was more or less steady during the year, but slightly declined at the end of the year compared to January. It is seen that the prices of oil seeds have shot up considerably during the course of the year (26 per cent increase). The indices of Plantation crops and food crops did not show much fluctuation during the year. The index of non-food crops, however, registered increase of about 22 per cent during the period January-November 1982. The average wholesale price index for agricultural commodities (all groups together) showed an increase of 9 per cent in November 1982 over its level at the beginning of the year.

TABLE 3.1  
*Wholesale Price Index of Agricultural Commodities  
Kerala (1981 and 1982)*

Groups	1981	1982*
(1)	(2)	(3)
1. Foodgrains (Rice)	318.7	318.7
2. Molasses	605.9	414.1
3. Condiments & Spices	441.8	446.4
4. Fruits & Vegetables	728.4	741.5
5. Food Crops	417.2	414.0
6. Oil Seeds	819.0	781.2
7. Plantation Crops	358.1	387.0
8. Non Food Crops	679.8	662.4
All Crops	513.1	504.7

\* The Average of 11 months

#### *Retail Price of Essential Commodities*

3.3 The general upward trend in the retail prices of most of the commodities of general consumption observed in 1981 continued during the year 1982 also. Table 3.2 provides the data on prices of some selected commodities during December 1981 and December 1982 and percentage variation over the period. A steady upward movement was witnessed in the price of rice from the beginning of the year under review. The rise in percentage terms was 19.81 during the period. Considering the year as a whole viz., (December 1981 and December 1982) the retail prices of essential commodities except corriander, chillies, onion, sugar, greengram and redgram showed increase. The highest rise was in the case of coconut oil (48.08 per cent). Among other items, the price of tapioca (32.47 per cent), coconut (30.63 per cent), baby food (35.34 per cent) also increased by a substantial margin. The items which showed declining trend in prices were chillies, sugar, corriander, potato, redgram and greengram. The prices of tapioca registered an increase (32 per cent) at the end of 1982 compared to December 1981. The price rise in the case of cow's milk was about 10 per cent, over the period December 1981-82. There was only a nominal increase in the price of egg. There was notable fall in the index relating to onion (39 per cent). The monthly retail prices (See Appendix 3.7) show that onion prices reached a peak of Rs. 3.92 per Kg. in June 1982 but gradually fell to Rs. 1.71 per Kg. at the end of the year. Decreases were seen in sugar prices also. Coconut and Coconut oil, for which Kerala claims a major share of production, showed a notable increase of 48.08 and 30.63 per cent respectively.

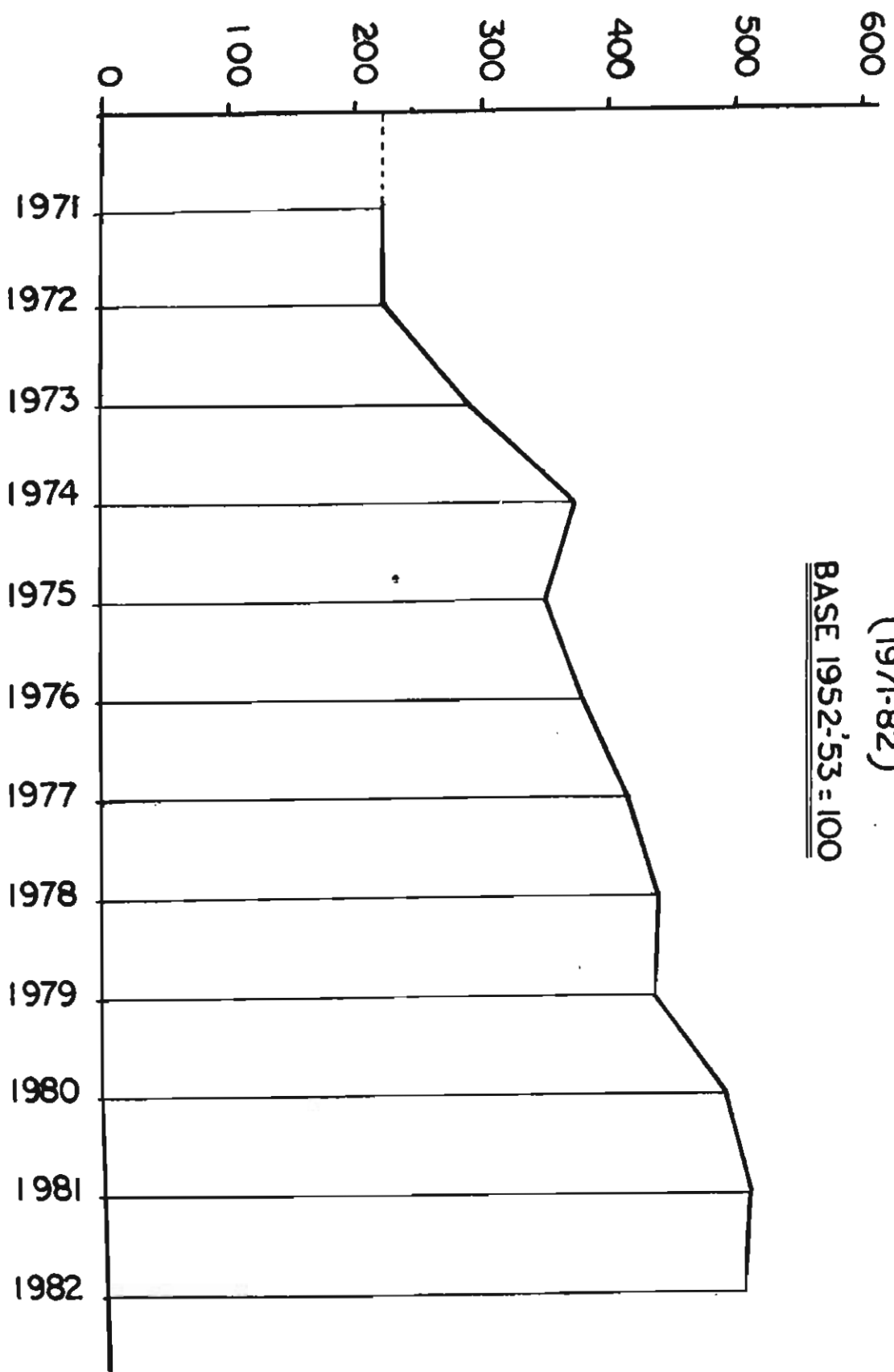
TABLE 3.2  
*Average Retail Prices of Essential Commodities*

Commodity	Unit	Price at the end of December		Percentage Variation 1982 over 1981
		1981	1982	
(1)	(2)	(3)	(4)	(5)
1. Rice	Kg.	3.08	3.69	+19.81
2. Greengram	..	4.83	4.52	- 6.42
3. Blackgram	..	4.12	4.54	+ 10.19
4. Redgram	..	4.37	3.82	-12.59
5. Dhall	..	6.19	7.07	+14.22
6. Coconut Oil	..	13.81	20.45	+48.08
7. Groundnut Oil	..	14.83	15.83	+6.74

# WHOLESALE PRICE INDEX OF AGRICULTURAL COMMODITIES KERALA

(1971-82)

BASE 1952-53 = 100



	(1)	(2)	(3)	(4)	(5)
8. Refined Oil	Kg.	24.22	23.94	-1.16	
9. Tapioca	,,	0.77	1.02	+32.47	
10. Banana-Green	,,	2.67	2.86	+7.12	
11. Milk (Cow's)	Litre	3.11	3.42	+9.97	
12. Egg (Hen's)	Dozen	6.42	6.47	+7.79	
13. Potato	Kg.	2.17	2.27	4.61	
14. Corriander	,,	9.31	8.03	-13.75	
15. Chillies	,,	16.55	12.80	-22.66	
16. Onion	,,	2.81	1.71	-39.15	
17. Sugar	,,	5.96	4.28	-28.19	
18. Coconut (Without Husk)	100 Nos.	125.25	163.61	+30.63	
19. Firewood (Local Split)	Qtl.	40.90	45.00	-10.02	
20. Washing Soap (Sunlight Bar)	Each	2.31	2.41	+4.33	
21. Electric Bulb (Osram 40w)	,,	3.97	4.51	+13.60	
22. Aluminium Cooking Pot	Kg.	31.09	42.10	+35.41	
23. Baby Food (Amul)	,,	26.43	35.77	+35.34	

### Consumer Price Index

3.4 During 1982 the consumer price index number showed an upward trend. A gradual increase in the index was discernible in the fifteen centres for which consumer price index numbers (cost of living index) for agricultural and industrial workers are computed. The increase in the price index was more pronounced in the second half of the year than the first half. This shows that the rate of inflation has been slightly on the increase during the second half of the year. The average of monthly cost of living index numbers of various centres, in the State during January 1982 was 235 while that during June 1982 and December 1982 were 240 and 252 respectively. The all round increase in the retail prices of essential commodities got reflected in the consumer price index, also. A comparison of the indices of the 15 centres in Kerala shows that the variation in the cost of living index numbers during 1982 was highest at Punalur and lowest at Munnar (See Appendix 3.8). The variations in the indices during the 12 months of the year under review was in the range of 8 to 22 points while the corresponding range during the previous year was 13 to 22 points. The average annual consumer price index for the year 1980, 1981 and 1982 is provided in Table 3.3.

TABLE 3.3

Average Consumer Price Index Cost of Living index Numbers in Selected Centres of Kerala (Base 1970=100)

Centre	Average Annual Index			Percentage variation	
	1980	1981	1982	1981 Over 1980	1982 Over 1981
(1)	(2)	(3)	(4)	(5)	(6)
1. Trivandrum	203	229	243	+12.81	6.11
2. Quilon	204	235	250	+15.19	6.38
3. Punalur	198	222	238	+12.12	7.21
4. Alleppey	198	229	242	+15.19	5.68
5. Kottayam	201	229	245	+13.96	6.99
6. Mundakayam	192	224	238	+16.67	6.25
7. Munnar	207	234	242	+13.23	3.42
8. Ernakulam	195	223	236	+14.36	5.83
9. Chalakudy	200	230	243	+15.00	5.65
10. Trichur	205	234	245	+14.14	4.70
11. Palghat	198	225	239	+13.84	6.22
12. Malappuram	201	228	238	+13.43	4.39
13. Kozhikode	203	229	249	+12.81	6.11
14. Meppady	205	233	248	+13.66	6.44
15. Cannanore	197	225	238	+14.21	5.78
State	201	229	242	+13.93	5.81

### Parity Index

3.5 The parity index (the index number of parity between the prices received and paid by the farmers) indicate the economic gain or loss to the farmer in the context of market price fluctuation. The parity index of 84 during the year 1982 is indicative of the continuing unfavourable situation to the Kerala farmers. While the index of prices paid by the farmers went up by 45 points, the index of prices received by them went up by only 20 points. Since 1978 the parity index has been unfavourable to the farmers in the State. As in the previous year, 1982 also witnessed increase in both domestic expenditure and farm cultivation cost. The latter recorded an increase of about 10 per cent during the year compared to 1981. This abnormal increase in the cultivation cost had an adverse impact on the farming sector in the State. The index number of prices received and prices paid by the farmers (Base 1952-53=100) since 1971 are shown in Table 3.4.

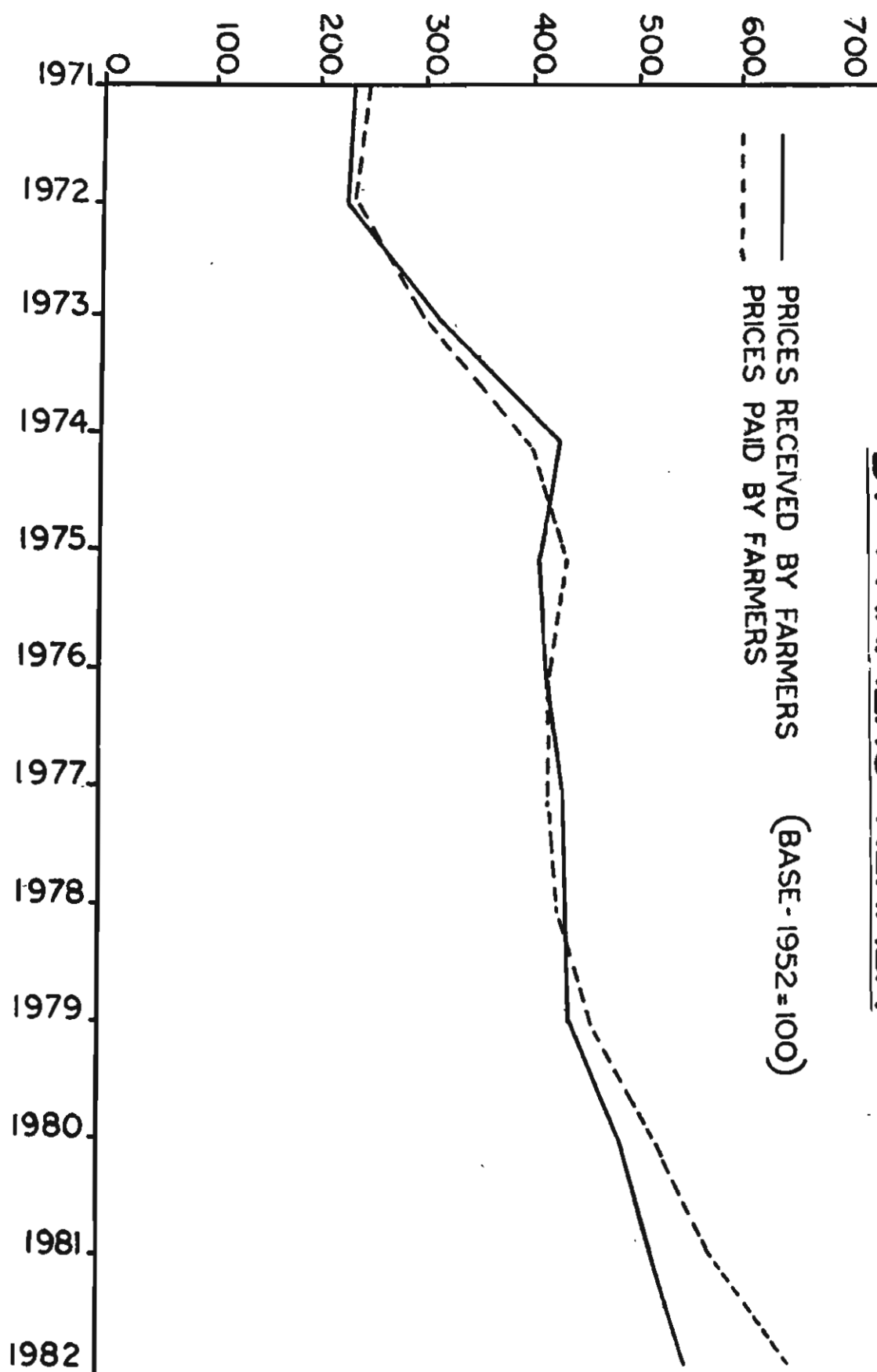
TABLE 3.4

Index Number of Prices Received and Prices Paid By The Farmers

Year	Prices Received by Farmers	Farm Cultivation Cost	Domestic Expenditure	Prices Paid by Farmers	Parity as (2) to (3)
(1)	(2)	(3)	(4)	(5)	(6)
1980	481	607	441	518	93
1981	516	704	501	594	87
1982*	536	774	528	639	84

\*Average of 11 Months

# INDEX NUMBER OF PRICES RECEIVED AND PAID BY FARMERS - KERALA



### Food Situation

3.6 The food economy of Kerala, despite an increase in internal supply of rice, suffered some set back in 1982 due to lower level of foodgrains arrivals into the State. Import of rice on State account declined from 15.75 lakh tonnes in 1981 to 12.05 lakh tonnes in 1982. At the same time the import of wheat on State account increased from 0.48 lakh tonnes to 0.88 lakh tonnes. The fall in the production of tapioca also contributed its share to the shortfall of total food availability, which declined from 447 gms/day in

1981 to 400 gms per day in 1982 (See Table 3.5). Regarding the availability of foodgrains, there was a decline of 15 per cent from 299 gms/day in the previous year to 255 gms/day in the year under report. The strain on the food front pushed up the price of rice in the open market in the later months of the year. A fairly effective functioning of the public distribution system, combined with the activities of the Civil Supplies Corporation in towns and cities, however, avoided the cause for much concern in the food front during the year.

TABLE 3.5  
Per Capita Availability of Food in Kerala

Particulars	(Gms/day)						
	1976	1977	1978	1979	1980	1981	1982
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Rice from Internal Production in the State	137	128	130	126	126	124	128
2. Rice from Imports	103	171	180	58	175	170	128
3. Total Rice Available (1+2)	240	299	310	184	301	294	246
4. Wheat from Import	45	2	13	4	11	5	9
5. Total Foodgrains (3+4)	285	323	323	188	312	299	255
6. Rice Equivalent of Tapioca within the State	208	196	156	149	149	148	145
7. Total (5+6)	493	519	479	337	461	447	400

(See also Appendix 3.9)

TABLE 3.6

Imports of Foodgrains on State Account\*

(in Tonnes)

Month	1981		1982	
	Rice	Wheat	Rice	Wheat
(1)	(2)	(3)	(4)	(5)
January	135000	4000	90000	4000
February	135000	4000	90000	4000
March	135000	4000	90000	4000
April	135000	4000	90000	4000
May	135000	4000	110000	4000
June	135000	4000	110000	4000
July	135000	4000	110000	4000
August	135000	4000	110000	4000
September	135000	4000	110000	4000
October	135000	4000	110000	4000
November	135000	4000	90000	24000
December	90000	4000	90000	24000
Total	1575000	48000	1205000	88000

\* Allotment From Central Pool Only.

Source: Directorate of Civil Supplies, Trivandrum.

4/723/MC.

### Public Distribution System

3.7 In a State like Kerala with chronic food deficit, the public distribution system has always a vital role in meeting the demand of the people for essential articles. During 1982 when the State experienced shortage of foodgrains in the open market on account of some restrictions in the movement of rice imposed by neighbouring states, the public distribution system played a notable role in distributing the available foodgrains to the people in a satisfactory manner. The average monthly off-take of rice through ration shops increased from 89,020 tonnes in 1981 to 96,627 tonnes in 1982 (8.5 per cent rise) and that of wheat from 3655 tonnes to 4913 tonnes (34 per cent rise).

3.8 During the year under review the number of ration cards for families rose by 7188 and the number of ration permits for institutions rose by 870. Along with the increase in ration cards and permits there were also increases in the quantum of rice, sugar and kerosene distributed through the public distribution system. It is reported that the number of wholesale shops declined from 265 to 259 and that of retail shops declined from 11471 to 11460. There has also been noticeable decline in the quantity of coarse cloth allotted for distribution.

TABLE 3.7

*Distribution of Rice and Wheat through the Public Distribution System.*

Month	Rice Distributed (in Tonnes)		Wheat Distributed (in Tonnes)	
	1981	1982	1981	1982
(1)	(2)	(3)	(4)	(5)
January	69652	92415	3086	3893
February	74120	82304	3390	3447
March	87936	96934	3809	3494
April	88703	91877	2859	3546
May	89854	100542	4111	4032
June	86383	102662	4299	4321
July	92423	108364	4049	4408
August	90797	116940	3666	3627
September	98039	90420	2980	3192
October	91396	83826	3869	3914
November	94323	90688	3858	7924
December	99661	102553(p)	3886	13163(p)
Total	1063287	1159525(p)	43862	58961(p)
Average Monthly Off-take	88607	96627	3655	4913

\*Quantity Actually Drawn by Ration Card Holders.

(p) Provisional

Source: Directorate of Civil Supplies, Trivandrum.

TABLE 3.8

*Public Distribution System of Essential Commodities in Kerala*

Particulars	Unit	1981	1982
(1)	(2)	(3)	(4)
1. No. of Ration Card and Permits (as on 1st April)			
(a) Ration Cards for Families	No.	4101965	4109153
(b) Ration Permits for Institutions.	do.	5697	6567
2. No. of F.C.I. Sub Depots	do.	22	22
3. No. of Wholesale Shops:			
(a) Cooperatives	do.	45	45
(b) Others	do.	220	214
(c) Total Wholesale Shops	do.	265	259
4. No. of Retail Shops:			
(a) Cooperatives	do.	1713	1593
(b) Others	do.	9758	9367
(c) Total Retail Shops	do.	11471	11460
5. Quantity of Coarse Cloth (Allotted)	Std. Bales	7108	4337
6. Wheat Products Distributed	M.T.		
7. Sugar	M.T.	125953	131180
8. Kerosene	M.T.	125638	139626(p)

(p) Provisional

Source: Directorate of Civil Supplies, Trivandrum

### Procurement of Paddy

3.9 Against the procurement of 492 tonnes of paddy in 1980-81, the paddy procurement in 1981-82 was only 307 tonnes showing a substantial fall of nearly 38 per cent (See Table 3.9). The procurement of paddy had been considerably declining with the liberalisation of levy policy by the State Government since 1978-79. With the exemption of paddy lands below 10 hectares from the purview of levy in 1980-81, the procurement levels further declined (See Appendix 3.10). Paddy procured in 1981-82 constitutes only 0.02 per cent of the total rice production in the State.

TABLE 3.9

*Procurement of Paddy*

Month	Quantity in Tonnes	
	1980-81	1981-82
(1)	(2)	(3)
July	51.2	..
August	73.2	..
September	20.8	..
October	..	10.1
November	20.5	12.8
December	20.3	4.2
January	..	20.2
February	..	11.2
March	..	0.8
April	..	21.7
May	..	169.8
June	305.6	55.8
Total	491.6	306.6

Source: Directorate of Civil Supplies, Trivandrum

### Kerala State Civil Supplies Corporation

3.10 The Kerala State Civil Supplies Corporation was formed in 1974 to act as an instrument to curb price increases of essential articles. The main objectives of the Corporation are (i) to purchase high quality essential commodities from all over the country, as far as possible directly from the producers and (ii) to maintain a buffer stock of the essential articles for distribution at times of shortage.

3.11 The Civil Supplies Corporation trades in about 18 groups of essential commodities such as cereals, pulses, vegetables, beverages, sugar, cement, petroleum products and Indian-made foreign liquor. The Corporation effectively intervenes the market through nearly 100 'Maveli'

Stores, the retail outlets located in all key centres of the State. The festival bazaars of 1982 along with the Co-operative Maveli Stores, the new retail outlets organised jointly with the co-operative societies, are reported to have made

success in holding retail prices during festival seasons. A large number of these "Sahakarana Maveli Stores" started during the Onam season of 1982 are still continuing and have become permanent.

TABLE 3.10  
Essential Commodities Distributed by Kerala State Civil Supplies Corporation

Item	1980-81 (4/80 to 3/81)		1981-82 (4/81 to 3/82) *	
	Quantity (in Tonnes)	Value (Rs. Lakhs)	Quantity (in Tonnes)	Value (Rs. Lakhs)
1. Wheat				
2. Wheat Products	1006	25.14	31500	80.00
3. Rice	49012	1225.30	52000	1300.00
4. Pulses	1772	60.23	2010	75.35
5. Coconut Oil	..	..	..	..
6. (a) Palm Oil	NR		NR	
(b) Palmolin Oil	16540	1323.84	20200	2020.00
7. Chillies				
8. Corriander	..	20.13	..	40.20
9. Provisions and Other Items				
10. Tapioca	..	..	..	..
11. Vegetables	..	46.00	..	54.00
12. Sugar	126495	4828.36	127500	4962.50
13. Tea	300	48.00	400	64.00
14. Paper for Note Books				
15. Uniform Cloth to Students (600 metres)	..	..	..	..
16. (a) Motor Spirit				
(b) High Speed Diesel	2572 KL	128.60	..	237.87
(c) Lubricant				
17. Cement	270528	1758.43	124000	1240.00
Total (value only)	..	9464.03	..	10068.92

\* Provisional Figures

N.R. Not Reported]

Source: Kerala State Civil Supplies Corporation, Cochin.

3.12 The annual turnover of the Corporation is showing significant improvement year after year. From Rs. 24.04 crores in 1979-80, the turnover rose to Rs. 94.13 crores in 1980-81 and to Rs. 98 crores (provisional) in 1981-82. During the year under review, the Corporation has

distributed significant quantity of rice, sugar and palmolin (See Table 3.10). Establishment of a rice processing unit, starting of mobile and floating maveli stores etc. are schemes chalked out for future implementation by the Corporation.

CHAPTER 4  
AGRICULTURE

*Crop Production*

The year 1981-82 was not a bad year for the crop sector as a whole, despite low rain fall and marginal hikes in the prices of most of the agricultural inputs. The farm prices in general were favourable to the farming community. The year marked modest improvements in the net and gross areas brought under cultivation. Productivity of rice reached a record level of 1660 kg. per ha. taking the total production to 13.40 lakh tonne. The rainfall, though below normal in most of the months and insufficient to most of the crops, has favoured rice production. The plantation sector however had a poor performance after reaching a peak in 1979-80.

4.2 The index of crop production during 1981-82 showed modest improvement, though less than what it ought to be, considering the improvement in the area index over the previous year. While the indices of area, production and productivity of cereals progressed satisfactorily, those of pulses registered marked fall. The performance of the non-foodgrains sector was generally discouraging during the year (See Table 4.1). The plantation crops noted the largest fall of 8.49 points in production index, mainly due to the fall in the production of coffee. The production index of oilseeds showed modest progress on account of the increase in production of coconut and groundnut. The production

index of condiments and spices, despite marginal improvement in area index, registered a decline of 2.99 points affected by the fall in the production of all crops falling under that group.

4.3 Productivity index of crop sector, excepting that of cereals and oilseeds, recorded reductions of various degrees, the notable being the decline in the case of plantation crops. The less than average rainfall and increase in input prices have adversely affected the performance of the plantation sector.

4.4 Compared to the levels of achievements in the end of Fifth Five Year Plan (as revealed by the average index for 1976-77 to 1978-79), the present performance of the non-foodgrains is far from satisfactory, though in the case of cereals and pulses marked improvements could be noticed. Some of the recent features of the crop sector are disquieting and call for immediate attention. One such feature causing concern is the declining share of HYV in the total area and production of rice in spite of the marginal increase in productivity of rice. Another feature is the declining off-take of chemical fertilizers by farmers. A third feature, is the discouraging performance of the plantation sector, which is largely export oriented. Strenuous efforts to increase the area coverage under HYV and off-take of fertilizers in general will therefore have to be made to catch up with the growth rate anticipated in this sector.

TABLE 4.1

*Index of Area, Production and Productivity of Principal Crops in Kerala*

(Base Year-Average of the Triennium Ending 1969-70)

Crop	Area			Production			Productivity		
	Average of 3 years 1976-77 to 1978-79	1980-81	1981-82	Average of 3 years 1976-77 to 1978-79	1980-81	1981-82	Average of 3 years 1976-77 to 1978-79	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All Crops (A+B)	101.02	98.59	99.18	104.54	100.47	100.79	103.43	101.91	101.62
A. Foodgrains (1+2)	96.26	92.70	93.11	105.49	105.87	111.32	109.59	114.21	119.56
1. Cereals	96.79	93.34	93.94	105.60	105.45	111.05	109.10	112.97	118.21
2. Pulses	85.26	79.58	76.27	97.58	136.39	120.94	114.45	171.39	170.37
B. Non Foodgrains (3 to 7)	103.49	101.66	102.34	104.26	98.87	97.69	100.74	97.26	95.46
3. Oil Seeds	100.75	96.16	96.35	84.27	73.71	79.12	83.64	81.85	82.12
4. Plantation Crops	125.81	140.40	144.63	166.65	136.27	177.78	132.46	132.67	122.71
5. Condiments and Spices	95.08	96.34	96.42	127.88	140.67	137.63	134.50	143.01	142.79
6. Fruits and Vegetables	105.20	97.80	97.74	103.62	87.45	86.96	93.41	89.42	88.97
7. Miscellaneous Crops	93.52	51.82	51.72	94.57	62.86	62.65	194.91	121.30	121.13

Note: Figures for 1981-82 are based on provisional estimates.

Cereals: Rice, Jowar, Ragi and Other Cereals and Millets.

Oil Seeds: Groundnut, Sesamum and Coconut

Plantation Crops: Tea, Coffee and Rubber

Condiments and Spices: Pepper, Ginger, Chillies, Turmeric, Arrecanut and Cardamom

Fruits and Vegetables: Banana and Plantains, Mangoes, Citrus Fruits, Cashew, Tobacco and Sweet Potato

Miscellaneous Crops: Leno grass, Sugar, Cotton and Tobacco.



### Farm Commodity Prices

4.5 The average farm prices of principal commodities showed a mixed trend in 1982. While the farm price of tapioca, ginger and banana showed fairly upward trend, the farm price of cashew declined considerably in 1982 on account of the slash in procurement price effected in April 1982 in tune with the glut in international cashew market. The price of ginger has been maintaining an increasing trend for the last two years. The average farm price of paddy reckoned for the first ten months

of 1982 does not show much variation from the average price in the previous year. Though the monthly farm price of coconut was at a low level and maintained a falling trend for the first few months, the price began to pick up and tended to improve fairly since June (See Appendix 4.1). In the case of pepper, the internal price of which is largely influenced by international market situations, the farm price noted marginal set-back in 1982. The reported figures for sugarcane and arecanut show that their prices noted modest improvements during the year under review.

TABLE 4.2  
Average Farm Prices of Principal Commodities

Commodity	Unit	1981	1982*	Change Over the Previous Year	
				Actual	Per cent
(1)	(2)	(3)	(4)	(5)	(6)
1. Paddy	Quintal	179.78	179.86	+0.08	+0.04
2. Tapioca	"	42.77	56.05	+13.28	+31.05
3. Coconut (With Husk)	100 Nos.	125.75	121.02	-4.73	-3.76
4. Pepper	Quintal	1204.20	1169.64	-34.56	-2.87
5. Ginger	"	728.17	1177.97	+449.80	+61.77
6. Cashewnut	"	756.51	657.70	-98.81	-13.06
7. Sugarcane	Tonne	187.50	191.33	-3.83	+2.04
8. Arecanut	100 Nos.	8.28	8.88	+0.60	+7.25
9. Banana	100 Nos.	40.92	45.61	+4.69	+11.46

\* See Appendix 4.1 also

Source: Directorate of Economics and Statistics, Trivandrum.

### Farm Input Prices

4.6 As in the previous year, farm input prices in general increased during 1981-82 also. Among the fertilizers the largest increase was noticed in the case of potassic fertilisers followed by nitrogenous fertilisers. Among the coconut seedlings maximum price increase was noted in the case of West Coast Tall variety, the increase being 42.9 per cent. 'Laccadive

Ordinary' maintained the same level as in previous year while T×D and D×T hybrids registered only marginal increase. Among other planting materials, the largest increase in price was noted in the case of one year old seedlings of nutmeg and cloves. Green manure seeds also have registered considerable increase in price during the year. However the price of paddy and pulses seeds maintained the same level as in previous year. (See Table 4.3)

TABLE 4.3  
Average Prices of Important Agricultural Inputs

Input	Unit	1980-81	1981-82	Change Over the Period (Per cent)	
(1)	(2)	(3)	(4)	(5)	
1. Fertilizer					
(a) Nitrogen	Urea	Rs./Kg.	2.00	2.35	+17.5
	Ammonium Sulphate	Rs./Kg.	1.65	1.75	+6
(b) Phosphorus	Superphosphate	Rs./Kg.	0.89	0.94	+5.6
(c) Potash	Muriate of Potash	Rs./Kg.	1.09	1.30	+19.3

Input	Unit	1980-81	1981-82	Change over the period (Per cent)
(1)	(2)	(3)	(4)	(5)
<b>2. Seeds and other Planting Materials</b>				
(a) Paddy Seeds	Rs./Quintal	150	150	Nil
(b) Pulses Seeds	Rs./Quintal	353	353	Nil
(c) Green Manure Seeds				
(i) Sunhemp	Rs./Quintal	285	327	+14.7
(ii) Daincha	Rs./Quintal	190	214	+12.6
(iii) Kolinji	Rs./Quintal	168	207	+23.2
(d) Coconut Seedlings				
(i) West Coast Tall	Rs./Seedling	3.50	5.00	+42.9
(ii) T x D	Rs./Seedling	6.00	6.25	+4.2
(iii) D x T	Rs./Seedling	6.00	6.25	+4.2
(iv) Laccadive Ordinary	Rs./Seedling	3.50	3.50	Nil
(e) Arecanut Seedling				
		No. Departmental Sale		
(f) Rooted Pepper Cuttings				
(i) Panniyoor I	Rs./Cutting	0.25	0.30	+20
(ii) Other Varieties	Rs./Cutting	0.15	0.20	+33.3
(g) Cashew Layers	Rs./Layer	0.50	0.50	Nil
(h) Cashew Seedlings	Rs./Seedling	0.50	0.60	+20
(i) Cocoa Seedling	Rs./Seedling	0.40	0.40	Nil
(j) Nutmeg Seedling				
(i) 1 Year Old	Rs./Seedling	1.00	2.00	+100
(ii) 2 Years Old	Rs./Seedling	2.00	3.00	+50
(k) Clove Seedling				
(1) 1 Year Old	Rs./Seedling	1.00	2.00	+100
(2) 2 Years Old	Rs./Seedling	2.00	3.00	+50
<b>3. Other Items</b>				
(a) Soil Ameliorants				
(i) Calcium Carbonate				
Bulk	Rs./Tonne	30	30	Nil
Bagged	Rs./Tonne	110	110	Nil
(ii) Dolomite		Rs./Tonne		
(iii) Full Burnt Lime		Rs./Tonne		
(b) Farm Yard Manure	Rs./Tonne	100	100	Nil
(c) Wood Ash	Rs./Tonne	300	300	Nil

Source: Directorate of Agriculture

### Climate

4.7 The total rainfall in the State during 1981 was 2514.37 mm. which is about 17 per cent less than the normal annual rainfall for the State. Excepting in the months of June and September, the monthly distribution

of the rainfall was below the normal throughout the year. The low rainfall during the year seems to have upset the performance of plantation crops and is likely to carry its adverse effect on perennial crops during the next year also (See Table 4.4).

TABLE 4.4  
Average Monthly Rainfall in Kerala

Month	Monthly Average Rain fall (in mm.)	
	Normal	1981
(1)	(2)	(3)
January	18.5	10.34
February	19.3	4.73
March	46.4	20.88
April	115.6	65.87
May	245.0	134.04
June	672.8	779.23
July	686.4	410.79
August	422.6	377.40
September	242.0	321.23
October	306.9	242.35
November	190.9	115.67
December	51.2	31.84
Total	3017.6	2514.37

Source: Directorate of Economics & Statistics, Trivandrum.

### Land Use Pattern

4.8 There has been only very little change in the land use pattern in Kerala during 1981-82. The area under forests remained at 10.82 lakhs ha. as in the previous year. Land put for non-agricultural purposes registered a marginal decline of 487 ha. (See Table 4.5). While the extent of cultivable waste has declined by 475 ha. fallows and current fallows together increased by 219 ha. There has been marginal increase in net area sown by 638 ha. and an appreciable increase in area sown more than once by 4354 ha. a major share of which is contributed by Alleppey district. The cropping intensity moved up to 1.33 in 1981-82 from 1.32 in 1980-81.

TABLE 4.5  
Land Use Pattern in Kerala

Classification of Land	(Area in ha.)				
	1980-81		1981-82		Change Over the Previous Year
	Actual	Per cent	Actual	Per cent	
(1)	(2)	(3)	(4)	(5)	(6)
1. Total Geographical Area	3885497	100	3885497	100	..
2. Forest	1081509	27.83	1081509	27.83	..
3. Land Put to Non-Agricultural Uses	269824	6.94	269337	6.93	- 487
4. Barren and Uncultivable Land	85770	2.21	85770	2.21	..
5. Permanent Pastures and Grazing Land	5432	0.14	5432	0.14	..
6. Land Under Miscellaneous Tree Crops	63875	1.64	63980	1.65	+ 105
7. Cultivable Waste Land	129032	3.32	128557	3.31	- 475
8. Fallow (Other than Current Fallow)	26886	0.69	26911	0.69	+ 25
9. Current Fallow	43579	1.12	43773	1.13	+ 194
10. Net Area Sown	2179590	56.10	2180228	56.11	+ 638
11. Area Sown More than Once	705250	18.15	709604	18.26	+4354
12. Total Cropped Area	2884840	74.25	2889832	74.37	+4992

Note: Figures for 1981-82 are provisional.

Source: Directorate of Economics and Statistics, Trivandrum.

### Area Under Principal Crops

4.9 The estimated net and gross cropped areas for 1981-82 under principal crops showed improvements over the respective areas of the previous year. The area under paddy registered a modest increase of 5219 ha. during 1981-82. The district-wise analysis reveals that the area under paddy has been declining in most of the districts while in Kottayam, Alleppey and Trichur it has registered significant improvements during the year. Among the principal

crops the largest percentage decline was in the case of pulses followed by sesamum. The area under coconut and cashewnut expanded by 0.23 per cent and 0.77 per cent respectively. Various area expansion programmes undertaken by Government and Government agencies have contributed much to the area expansion of these crops. While the area under banana and plantain remained stable, the area under tobacco declined by 0.58 per cent. In the plantation sector, area under cultivation as a whole showed improvements, the largest increase, as in the previous year, was in the case of rubber.

TABLE 4.6

## Area Under Principal Crops in Kerala

(In hectare)

Crop (1)	1980-81 (2)	1981-82 (3)	Change over the previous Year	
			Actual (4)	Percent (5)
1. Rice	801699	806918	+ 5219	+0.65
2. Ragi	1471	1471	..	..
3. Pulses	33859	32453	- 1406	- 4.15
4. Sugarcane	8041	8016	- 25	- 0.31
5. Pepper	108073	108073	..	..
6. Ginger	12662	12385	- 77	- 0.61
7. Turmeric	3270	3250	- 20	- 0.61
8. Cardamom*	56376	56376	-	-
9. Arecanut	61242	61545	+ 303	+ 0.49
10. Coconut	651370	652879	+ 1509	+ 0.23
11. Cashewnut	141277	142366	+ 1089	+ 0.77
12. Banana and Plantains	49262	49262	..	..
13. Tapioca	244990	243563	- 1427	- 0.58
14. Sweet Potato	5054	5090	+ 36	+ 0.71
15. Groundnut	9399	9399	..	..
16. Sesamum	14752	14571	- 181	- 1.23
17. Cotton	6223	6223	..	..
18. Tea	36164	36164	..	..
19. Coffee *	57564†	57949†	+ 385	+ 0.67
20. Rubber *	237800	248000	+10200	+ 4.29

Note: Figures for 1981-82 are Provisional.

\* Commodity Board Estimates.

† Figures Relate to 1980 and 1981.

Source: Directorate of Economics & Statistics, Trivandrum.

### Production of Principal Crops

4.10 The year 1981-82 witnessed a fall in the production of most of the principal crops despite the reported overall increase in area under the crops. However, unlike in the previous year, there has been noticeable increase in rice production by about 68 thousand tonnes taking the total production to nearly 13.40 lakh tonnes. Production of coconut, banana and plantains also registered progress during the year under

4/723]MC.

review (See Table 4.7). Significant fall was recorded in the production of coffee (950 tonnes), cashewnut (2075 tonnes), pulses (1064 tonnes), rubber (878 tonnes), cardamom (300 tonnes) and tapioca (19,746 tonnes). Pepper, ginger, turmeric and sugarcane also registered decline, though nominal, in output. A comparatively low rainfall and poor off-take of fertilizers might be the reasons for the inadequate performance of some of the important crops.

TABLE 4.7

## Production of Principal Crops in Kerala

Crop	Unit	1980-81	1981-82	Change over the Previous Year	
				Actual	Per cent
(1)	(2)	(3)	(4)	(5)	(6)
1. Rice	Tonne	1271962	1339867	+ 67905	+ 5.34
2. Ragi	"	1131	1131	..	..
3. Pulses	"	22479	21415	- 1064	- 4.73
4. Sugarcane	"	48178	47947	- 231	- 0.48
5. Pepper	"	28519	28501	- 18	- 0.06
6. Ginger	"	32039	31975	- 64	- 0.20
7. Turmeric	"	6141	6070	- 71	- 1.16
8. Cardamom*	"	3100	2800	- 300	- 9.68
9. Arecanut	Million Nuts	10805	10738	- 67	- 0.62
10. Coconut	"	3008	3024	+ 16	+ 0.53
11. Cashewnut	Tonne	81900	79825	- 2075	- 2.53
12. Banana and plantains	"	317405	317879	+ 474	+ 0.15
13. Tapioca	"	406091	4041165	-19746	- 0.49
14. Sweet Potato	"	32967	33268	+ 301	+ 0.91
15. Ground nut	"	8225	8306	+ 81	+ 0.98
16. Sesamum	"	3833	3766	- 67	- 1.75
17. Cotton	Bales of 170 K.g.	9847	9847	..	..
18. Tea	Tonne	50716	50716	..	..
19. Coffee*	"	36475†	26975†	- 950	-26.05
20. Rubber *	"	140333	139455	- 878	- 0.63

Note.—Figures for 1981-82 are provisional

\* Commodity Board Estimates

† Figures relate to 1980 and 1981 respectively.

Source:—Directorate of Economics and Statistics, Trivandrum.

### Productivity of Principal Crops

4.11 Productivity of rice reached a record level of 1660 kg. per hectare in 1981-82. The highest achievement of yester years was 1638 kg. of rice per hectare attained in 1979-80. During 1981-82 productivity increases of smaller degree have been noticed in the case of coconut (0.3 per cent) banana and plantains (0.2 per cent) and

tapioca (0.1 per cent). Productivity of cardamom, cashew, arecanut and pulses, declined by 9.7 per cent, 3.3 per cent, 1.1 per cent and 0.6 per cent respectively. There were also marginal decline in productivity in the case of turmeric and sugarcane. The plantation sector in general faced severe setback in productivity, coffee contributing a larger share to the downturn. (See Table 4.8).

TABLE 4.8  
Productivity of Principal Crops in Kerala

Crops	Unit	1980-81	1981-82	Change over Previous Year	
				Actual	Per cent
(1)	(2)	(3)	(4)	(5)	(6)
1. Rice	Kg/ha	1587	1660	+ 73	+ 4.6
2. Ragi	"	769	769	..	..
3. Pulses	"	664	660	- 4	- 0.6
4. Sugarcane (Gur)	"	5992	5981	- 11	- 0.2
5. Pepper		264	264	..	..
6. Ginger		2530	2541	+ 11	+ 0.4
7. Turmeric		1878	1868	- 10	- 0.5
8. Cardamom		55	50	- 5	- 9.1
9. Arecanut	Nuts/ha	176491	174474	-1957	- 1.1
10. Coconut	"	4618	4632	+ 14	+ 0.3
11. Cashewnut	Rs/ha	580	561	- 19	- 3.3
12. Banana and Plantains	"	6443	6453	+ 10	+ 0.2
13. Tapioca	"	16576	16592	+ 16	+ 0.1
14. Sweet Potato	"	6523	6596	+ 13	+ 0.2
15. Groundnut	"	875	883	+ 8	+ 0.9
16. Sesamum	"	260	258	- 2	- 0.8
17. Cotton	Bales/ha	1.58	1.58	..	..
18. Tea	Kg/ha	1402	1402	..	..
19. Coffee	"	634	466	- 168	-26.5
20. Rubber	"	590	562	- 28	- 4.7

Note.—Figures for 1981-82 are Provisional.

### Rice Production

4.12 The year 1981-82 in general has been comparatively a good period for rice cultivation in the State. The productivity of rice has touched an all time high of 1660 kg. per hectare with a marginal expansion in area by 0.65 per cent. As a consequence the total production of rice in the State rose to the level of 13.40 lakhs tonnes against 12.72 lakh tonnes in 1980-81 (See Table 4.9).

4.13 While in 1980 the distribution of rainfall was uneven and intensity high during certain months resulting in extensive crop damages, in 1981 the rainfall was timely favouring rice cultivation, especially the mundakan crop. The largest percentage increase in area, production and productivity has been recorded by summer crop. The pancha crop in Alleppey District was good and was largely responsible for the overall achievements of the summer crop at the State level. The area under virippu crop registered a marginal decline by 0.60 per cent during the year. The severe drought that destroyed the previous

summer crop (of 1980-81) and the low rainfall in the beginning of the virippu season might have prevented the full exploitation of the whole Virippu area. Moreover, the autumn area recorded considerable decline while the winter and summer areas maintained more or less the same level of the previous years.

4.14 The farm price of paddy in general has not been unfavourable to the paddy cultivators. There was nearly a 29 per cent rise in farm price in 1981 compared to the price level in the previous year. The price incentive for cultivation combined with a favourable climate for rice cultivation might have boosted the production and productivity of rice in the State during 1981-82.

4.15 Though the provisional statistics for 1981-82 do not support the general impression of a declining rice area, it can be seen that for the last few years, rice area has been continuously declining in certain districts such as Malappuram, Kozhikode and Cannanore in Northern region and Trivandrum in Southern region.

TABLE 4.9

## Area, Production and Yield of Rice in Kerala

Season	Area in Hectare		Change in Area Over the Previous Year (percent)	Production in Tonne		Change in Production over the Previous Year (percent)	Yield in kg/ha		Change in Yield over Previous Year (percent)
	1980-81	1981-82		1980-81	1981-82		1980-81	1981-82	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Virippu-Autumn	349243 (43.56)	347145 (43.02)	-0.60	553748 (43.53)	556976 (41.57)	+ 0.58	1586	1604	+1.13
Mundakan-Winter	354132 (44.17)	356073 (44.13)	+0.55	548500 (43.12)	589154 (43.97)	+ 7.41	1549	1655	+6.84
Punja-Summer	98324 (12.27)	103700 (12.85)	+5.47	169714 (13.34)	193737 (14.46)	+14.15	1726	1968	+8.23
Total	801699 (100)	806918 (100)	+0.65	1271962 (100)	1339867 (100)	+ 5.34	1587	1660	+4.60

Note: Figures for 1981-82 are Provisional. Figures in Brackets Indicate Percentage to Total.

Source: Directorate of Economics and Statistics, Trivandrum.

## High Yielding Varieties of Rice

4.16 The downward trend in the area and production of high yielding varieties of rice noticed in the year 1980-81 continued in 1981-82 also. The total area under HYV declined by more than 20 thousand hectares and the total production of HYV of rice by 28 thousand tonnes according to data reported by Directorate of Economics and Statistics. However there was marginal improvement in the productivity of HYV compared to the previous year (See Table 4.10). A distinguishing feature of the performance of HYV during the year under review was the better performance of the virippu crop, recording a step up of area by nearly 2 per cent and production by 2.3 per cent.

4.17 Not only the performance of HYV as such was discouraging, but the proportional coverage of it to total rice was also disappointing. The proportion of area under HYV to total rice area came down to 32 per cent from the previous year's level of 35 per cent and that of production to 40 per cent from 44 per cent. This situation is one serious concern since half the additional target of production during the Sixth Plan period is hopefully tagged to the coverage under HYV.

TABLE 4.10

## High Yielding Varieties of Rice in Kerala

Season	1980-81	1981-82	Proportion of HYV to Total Rice (Percent)	
			1980-81	1981-82
(1)	(2)	(3)	(4)	(5)
Area in Hectare				
Virippu	136236	138941	39	40
Mundakan	92391	73579	26	21
Punja	51098	47183	52	45
Total	279725	259703	35	32
Production in Tonnes				
Virippu	282070	288486	51	52
Mundakan	175238	141563	32	24
Punja	101753	100940	60	52
Total	559061	530989	44	40
Average Yield in Kg/ha				
Virippu	2070	2076		
Mundakan	1897	1924		
Punja	1991	2139		
Total	1999	2045		

Note: Figures for 1981-82 are provisional

Source: Directorate of Economics and Statistics, Trivandrum.

### Development Programme

4.18 Intensification of cultivation was the main strategy followed by the State Government during 1981-82. Steps were taken to extend the Kerala Agricultural Extension Project (KAEP) to all the districts in the State. Despite intensive efforts in the field, the total off-take of fertilizers has registered a marginal set-back generally due to the hike in prices.

4.19 Intensive efforts at coconut development continued during the year with thrust on the comprehensive coconut development programme. As a result of this, NPK off take for coconut cultivation has registered increase by 15 per cent, 7 per cent and 16 per cent respectively compared to previous year. The medium term loan off-take through co-operative societies has also improved. Significant progress was noticed in the matter of filter points established and connected with pumpsets during 1981-82. As against 8912 wells in 1980-81, 9672 wells were dug for irrigating coconut plantations during 1981-82. The area coverage under the programme for rejuvenation of diseased and unproductive coconut plantations has registered an increase by 45 per cent compared to the previous year. However the massive programme for spraying against coconut leaf diseases which was implemented through the local bodies has given a poor performance during the year registering a shortfall by 41 per cent compared to 1980-81 performance.

4.20 Intensive economic support for the uplift of scheduled caste/scheduled tribe farmers was extended during the year 1981-82. Inputs supplied to them free of cost included 3.4 lakh coconut seedlings, 5.4 lakh pepper cuttings, 19 thousand clove seedlings, 6 thousand kg. of pulses seeds, 4 thousand nutmeg seedlings, 2 thousand kg. of green manure seeds, and Rs. 17.75 lakh worth of fertilizers, which benefited 58 thousand families during 1981-82. Special agricultural development programmes were also implemented to benefit the weaker sections of the farming community. Inputs supplied to them at subsidised cost included 69 thousand coconut seedlings, 17 thousand pepper cuttings, 3 thousand clove seedlings, and fertilizers worth Rs. 94 thousand covering an area of 1385 ha. and 13 thousand families.

4.21 High yielding variety coverage is one of the major stakes used to enhance the production of rice in the State. The total quantity of HYV seeds distributed from State seed farms and other government agencies during the year 1981-82 registered an increase of 29.7 per cent compared to previous year.

4.22 Plant protection activities viz., distribution of insecticides, weedicides, rodenticides, rodent control operation, biological control of pests on coconut, area under plant protection coverage etc., showed a decline in 1981-82 compared to previous year. The total quantity of

seeds treated, area under seed treatments, quantity of fungicides distributed, and weed control operations etc., have registered progress during the year. Distribution of plant protection equipments at subsidised cost continued during 1981-82 also. The plant protection equipments so distributed include 73 power sprayers, 3446 Knapsac sprayers, and 2156 Rocker Sprayers against a target of 90, 3200 and 1800 respectively in 1981-82.

4.23 Under pulses development programme fertilizers worth Rs. 3.86 lakhs has been distributed during 1981-82 to the farmers. However the quantity of seeds distributed during 1981-82 showed decline compared to previous year.

4.24 Of the inputs for enhancing agricultural production, supply of quality planting materials has great significance. During the year under review, coconut seedlings topped the list by registering an off-take of 30.85 lakh seedlings as against 17.39 lakh seedlings only in 1980-81, the increase being 77 per cent. Excepting coconut, the supply of other seedlings or planting materials of perennial crops like pepper, cashew, clove, nutmeg etc., in general registered a decline during 1981-82.

4.25 Under the Multi State Cashew Project an area of 2000 ha. have been covered during the year.

4.26 Promotional activities for intensive production of vegetables continued during the year in the Districts of Trivandrum, Trichur and Calicut. During the year 1981-82 the benefit of the scheme was extended to the urban areas of Quilon, Alleppey, Kottayam, Ernakulam and Palghat also. In total 427 ha. were covered under this programme by supplying 552 kg. of vegetable seeds, 43 tonnes of fertilizers, 453 plant protection equipments, and 1.6 tonnes of plant protection chemicals.

TABLE 4.10

*Selected Indicators of Agricultural Development*

Programme	Unit	1980-81	1981-82
(1)	(2)	(3)	(4)
<b>1. Fertilizer Consumption</b>			
a) Nitrogen	Tonnes	11697	10612
b) Phosphorus	Tonnes	23402	23214
c) Potash	Tonnes	32432	30935
Total	Tonnes	97531	94761
<b>2. Plant protection</b>			
a) Seeds Treated	'000 Tonnes	5288	6264
b) Area under Seed Treatment	Lakh ha.	0.622	0.785



Programme	Unit	1980-81	1981-82
(1)	(2)	(3)	(4)
(c) Fungicides (Liquid + Solid in Terms of Technical Grade)	Tonnes	304.17	334.96
(d) Insecticides (Liquid + Solid in terms of Technical Grade)	Tonnes	615.76	536.83
(e) Weedicides (in Terms of Technical Grade)	Tonnes	133.62	42.27
(f) Rodenticides (in terms of Technical Grade)	Tonnes	18.52	10.90
(g) Area under Plant protection Coverage	Lakh ha.	10.98	9.29
(h) Rodent Control Operation	Lakh ha	0.63	0.40
(i) Biological Control of Nephantis Srenopa-Parasites Liberated	Lakh Nos.	262.59	204.50
(j) Weed Control	Lakh ha.	0.775	1.134
(k) Trees Sprayed for Control of Coconut Leaf Diseases	Lakh Nos.	80.774	47.36
<b>3. High Yielding Seeds</b>			
(a) HYV Seeds of Paddy Distributed from State Seed Farms and other Government Agencies	Tonnes	1376.42	1785.00
(b) Coverage of HYV including Natural Spread	Lakh ha.	3.96	4.26
<b>4. Quality Planting Materials Distributed</b>			
(a) Coconut Seedlings	Lakh Nos.	17.395	30.85
(i) West Coast Tall	"	9.265	24.42
(ii) T x D Hybrid	"	4.931	4.31
(iii) D x T Hybrid	"	1.180	0.15
(iv) Laccadive Ordinary	"	1.957	1.93
(v) Other Varieties	"	0.062	0.04
(b) Arecanut Seedlings	"	NA	NA
(c) Rooted Pepper Cuttings	"	26.58	20.08
(i) Panniyoor--I	"	8.32	8.76
(ii) Other Varieties	"	18.26	11.32
(d) Cashew Layers	"	0.098	0.097
(e) Cashew Seedlings	"	12.549	4.45
(f) Cocoa Seedlings	"	5.855	Nil
(g) Nutmeg Seedlings	"	0.241	0.141
(h) Clove Seedlings	"	0.694	0.608
<b>5. Farmers' Training Programme</b>			
(a) Farmers Trained in Specialised Courses	Nos.	98	2707

Programme	Unit	1980-81	1981-82
(1)	(2)	(3)	(4)
(b) Special Group-Discussions Held	Nos.	18	287
(c) Training Camps Organised	"	478	501
<b>6. I. P. D. Programme</b>			
(a) I.P.D. Units	Nos.	529	378*
(b) Area Covered	Lakh ha.	2.61	2.70
<b>7. Coconut Package Programme</b>			
(a) Coconut Package Units	Nos.	187	187
(b) Area Covered under C.P.U '000ha		93.5	93.5
(c) Demonstrations Organised	Nos.	2000	2000
(d) Fertilizers Distributed			
(i) Nitrogen	Tonnes	12041	13810
(ii) Phosphorus	"	6471	6920
(iii) Potash	"	23821	27562
(e) Medium Term Loans Distributed (Through Co-operative Societies)	Rs. lakhs	66.20	67.917
(f) Filter Points Established	Nos.	242	581
(g) Filter Points Connected with Pumpsets	Nos.	242	581
(h) Wells Dug	Nos.	8912	9672
(i) Area Benefited by Wells Dug	ha.	23167	25977
<b>8. Rejuvenation of Diseased and Unproductive Coconut Plantations</b>			
(a) Area covered	ha.	20373	29491
(b) Seedlings Distributed	Nos.	278334	209828
<b>9. Survey and Surveillance Programme</b>			
(a) Units Established	Nos.	150	150
(b) Area Protected	Lakh ha.	7.85	7.85
<b>10. Short Term Loans Amount Distributed</b>			
	Rs. Lakhs	210.338	261.78
<b>11. Cashew Plantation Scheme</b>			
(a) Area Covered	ha	873	1899
(b) Amount Disbursed as subsidy	Rs. '000	897	780
<b>12. Free Supply of Pumpsets to Panchayats</b>			
	Nos.	19	84
<b>13. Tapioca Package Programme— Demonstration Plots Laid Out</b>			
(a) Pure crops	Nos.	4	Scheme Dropped
(b) Inter Crops	Nos.	..	do.

\* Assessed by Department of Agriculture, Trivandrum.

\*\*IPD Units in Trivandrum, Quilon and Alleppey Districts were merged with the Agricultural Extension Units on introduction of T&V System of Agricultural Extension

Programme	Unit	1980-81	1981-82
<b>14. Pulses Development</b>			
(a) Pulses Seeds Distributed	Tonnes	159.16	142.18
<b>15. Other Items</b>			
(a) Soil Samples Analysed	lakhs nos.	1.24	1.20
(b) Distribution of Soil Amelcorants.			
(i) Calcium Carbonate	Tonnes	5169	5474
(ii) Full Burnt Lime	Tonnes	..	..
(iii) Dolomite	Tonnes	..	..
(iv) Area Covered	ha	6461	7298
(c) Green Manure Seeds Distributed	Tonnes	161	228.15

#### *Kerala Agricultural Development Project*

4.27 The activities of the World Bank assisted Kerala Agricultural Development Project (KADP) aimed at the improvement of productivity of major foreign exchange earning tree crops and pepper continued with emphasis on improving the economic status of the small holder farmers in the project area. This seven year project has a total financial outlay of Rs. 62 crores, and its programmes consist of (i) Small Holder Farm Development (2) Establishment of Seed Garden Complex (3) Cashew Development (4) Rubber Processing and (5) Strengthening of Agricultural Research.

4.28 Under the Small Holder Farm Development programmes the response from farmers was better in the case of coconut new planting where the achievement during 1981-82 exceeded by 170 per cent of the target fixed for the year. The achievement under pepper rehabilitation programme followed by coconut rehabilitation programme have also exceeded the annual targets set for the year. An overall picture of the cumulative achievements under these programmes shows that pepper rehabilitation programme stands first in the matter of achievement, followed by coconut new planting. The performance under coconut rehabilitation is poor.

4.29 In 1981-82 inventorying of farmers' resources was completed for 14864 ha. and farm plans were prepared for 12582 ha. as against 11573 ha. and 9892 ha. respectively during the previous year. Out of a loan amount of Rs. 1377 lakhs sanctioned during 1981-82, only Rs. 660 lakhs is reported to have been disbursed during the year. The tempo for cocoa inter-cropping seems to have slowed down during the year, whereas fodder inter-cropping has improved. Construction of 2365 wells tanks, installation of 173 oil engine pumpsets 940 electric pumpsets and energisation of 967 electric pumpsets, distribution of 282 cows are some of the other

activities under this programme. Against a target of 220 ha. for planting under the seed garden complex 196 ha. has been planted with coconut, cashew, clove, nutmeg, and cocoa.

#### *Kerala State Coconut Development Corporation*

4.30 The most important achievement of the State Coconut Development Corporation in 1981-82 was the commencement of continuous three-shift operations of the processing factory at Mamom. There has been appreciable progress in the activities of the Corporation in 1981-82 compared to that in the previous year with more than 100 per cent increase both in the production and sales of coconut oil. The integrated coconut processing complex crushed 4985 tonnes of copra and produced 3178 tonnes of oil in 1981-82 against 2358 tonnes of copra crushed and 1518 tonnes of oil produced in 1980-81. The sales turnover, despite the fall in the price of coconut oil, showed considerable improvement during the year under review. The sales receipt increased from Rs. 245.60 lakhs in 1980-81 to Rs. 431.11 lakhs in 1981-82 as a result of the increase in sales from 1515.92 tonnes to 3127.88 tonnes of coconut oil. The receipt from cocconut oil cake also increased from Rs. 13.62 lakhs to Rs. 29.03 lakhs.

4.31 During 1981-82 the Corporation had to suffer a net loss of Rs. 64 lakhs as against Rs. 6.49 lakhs in the previous year. It is reported that the steep fall in coconut oil price was mainly responsible for the huge increase in loss. However, the Corporation expects a better performance in future with favourable price situations in the market. The second processing complex at Thiruvangoor in Kozhikode is in the last stage of completion and is expected to be ready for commissioning towards the middle of 1983.

#### *Kerala Agro-Industries Corporation*

4.32 The Agro-Industries Corporation is mainly engaged in the direct sale and hire purchase sale of agricultural machinery and provision of facilities for custom servicing and custom hiring of agricultural machinery. Financially, the Corporation presented a better performance in 1981-82, compared to that in the previous year, recording an increase of Rs. 2.93 lakhs in gross profit. However, the physical activities of the Corporation showed a little slump during the year under review. Though the receipt from the main activities such as direct sales, hire purchase sales and custom service showed marginal improvements, the improvement has not reflected on the total number of units sold or on the hours of custom service rendered. The number of tractors and pumpsets sold both under direct and hire purchase sales declined while the number of the power tiller sold under the scheme increased during the year (See Table 4.12). One of the recent important ventures of the Corporation has

been the establishment of a fruit processing complex at Punalur. The processing unit commenced commercial production in 1982. It is anticipated that the processing unit will turn out

products worth Rs. 42 lakhs during 1982-83. The Corporation also plans to establish a pesticide formulation unit in the State after obtaining necessary sanction from the Government of India.

TABLE 4.12

## Activities of Kerala Agro Industries Corporation

Item	1980-81		1981-82	
	Unit/No.	Value in (Rs. lakhs)	Unit/No.	Value in (Rs. lakhs)
(1)	(2)		(3)	
1. Direct sale of Agricultural Machinery and implements within the State				
(a) Tractor	28	36.13	17	42.00
(b) Power Tiller	16		29	
(c) Pumpset	68		55	
2. Hire Purchase Sales				
(a) Tractor	29	115.42	14	121.00
(b) Power Tiller	81		112	
(c) Pumpset	1912		1712	
3. Procurement of Spare Parts	..	8.97	..	11.56
4. Sale of Spare Parts	..	10.19	..	9.05
5. Sale of Paddy Seeds	606 kg.	0.47	Nil.	Nil.
6. Sale of Other Items (G.I. Sheet and Iron Rod)	85378 Kg.	2.74	Nil.	Nil.
7. Custom Services				
(a) Bulldozers-Work Done in Hours	2256 hrs.		1974 hrs.	
(b) Tractors -Work Done in Hours	6100 ,,		4483 ,,	
(c) Power Tillers—Work Done in Hours	..		..	
(d) Receipts from Hiring	..	9.34	..	10.00
8. Receipts from Work-shops/Service Stations	..	2.26	..	2.56
9. Repayment of Loans Issued	..	NA.	..	N.A.
10. Profit Before Provision for Reserve and Taxes	..	7.07	..	10.00*

\* Pertains to Unaudited Annual Accounts

Source: Kerala Agro Industries Corporation, Trivandrum.

### Kerala State Warehousing Corporation .

4.33 The State Warehousing Corporation has been established mainly for the scientific storage and transportation of agricultural and other commodities and purchase and sales of these commodities on behalf of government and government agencies and co-operatives. Though the prime objective of the Warehousing Corporation is to render service in the matter of storage of agricultural produce, the farming community has been utilising only a very small percentage of the storage facilities (See Table 4.13). The Corporation has 59 warehouses with a total storage

capacity of 1,27,564 tonnes of which 59,536 tonnes is owned by itself. The total quantity of deposits received during 1981-82 was 3,65,091 tonnes while in the previous year it was 4,67,666 tonnes. The share of deposit received from farmers declined from 1.60 per cent to 0.60 per cent. Fertilizers, cement and sugar continue to occupy the major share of the storage space.

4.34 Though there was a set back in the quantity of deposits received, the number of deposits received and the amount of storage charges collected improved considerably during

the year under review. There has also been satisfactory improvement in receipts from handling and transportation of commodities (See Table 4.14). In addition to its statutory functions, the Corporation has recently entered many new-fields and diversified its activities. Fumigation service, technical supervision and

advice for construction of godowns, clearance, handling and transportation of cargoes, etc., are some of the new and diversified activities of the Corporation. During the year under review the Corporation presented a commendable performance and increased its profit by more than 126 per cent.

TABLE 4.13  
Commodity-wise Deposit received by Kerala State Warehousing Corporation

Commodity (1)	(In tonnes)					
	1980-81 Deposit Received from			1981-82 Deposit Received from		
	Farmers (2)	Others (3)	Total (4)	Farmers (5)	Others (6)	Total (7)
1. Foodgrains	3237	36256	39493 (8.44)	62	34515	34577 (9.47)
2. Other Foodgrains	..	2618	2618 (0.56)	..	2420	2420 (0.66)
3. Grams and Pulses	..	2473	2473 (0.53)	..	3110	3110 (0.85)
4. Pepper	532	..	532 (0.11)	684	..	684 (0.19)
5. Copra	319	..	319 (0.07)	910	..	910 (0.08)
6. Groundnut	187	..	187 (0.04)	42	..	42 (0.01)
7. Oil cakes	..	513	513 (0.16)	..	652	652 (0.18)
8. Arecanut	700	65	765 (0.16)	910	47	957 (0.26)
9. Cashew	..	..	..	3	30	33 (0.01)
10. Fertilizers	..	142841	142841 (30.54)	..	93878	93878 (25.71)
11. CARE Articles	..	30403	30403 (6.50)	..	42294	42294 (11.58)
12. Cement	..	142318	142318 (30.43)	..	84761	84761 (23.22)
13. Sugar	..	79929	79929 (17.09)	..	71690	71690 (19.64)
14. Coffee	74	900	974 (0.21)	80	500	580 (0.16)
15. Rubber	94	..	94 (0.02)	..	..	..
16. Cardamom	2	..	2	117	..	117 (0.03)
17. Miscellaneous	2345	21860	24205 (5.18)	..	28986	28986 (7.94)
Total	7490 (1.60)	460176 (98.40)	467666 (100)	2208 (0.60)	362883 (99.40)	365091 (100)

Figures in brackets indicate percentage to total.

Source: Kerala State Warehousing Corporation, Ernakulam.

4/723/MC.

TABLE 4.14

*Activities of the Kerala State Warehousing Corporation*

Item	Unit	1980-81	1981-82	Change over the Period	
				Actual	Per cent
(1)	(2)	(3)	(4)	(5)	(6)
1. Deposits Received	Number	17,408	22,420	(+) 5012	(+)28.79
2. Deposits Received	Tonne	467,666	365,091	-102575	-21.93
3. Bank Advances	Rs. lakhs	89.4	94.6	(+)52	(+)5.82
4. Storage Charges Collected	"	57.3	75.0	(+)17.7	(+)30.89
5. Transportation and Handling Charges Collected	"	23.4	31.1	(+)7.7	(+)32.91
6. Profit	"	11.5	26.0	(+)14.5	(+)126.09

Source: Kerala State Warehousing Corporation, Ernakulam.

### *State Farming Corporation of Kerala*

4.35 The State Farming Corporation of Kerala, a State owned company was formed in 1972 to plant sugarcane mainly to feed Mannam Sugar Mills. The Corporation supplied sugarcane to sugar mills till 1980. However, the working of the Company till then resulted in a heavy loss of about Rs. 400 lakhs. Hence it was decided to diversify the activities of the Corporation with the objective of making it a viable unit.

4.36 Since 1980-81 the Farming Corporation has been engaged in the planting of rubber with assistance from Central Government under the Western Ghat Development Programme. Out of the total area of 2470 ha. available with the Corporation, it is proposed to extend rubber plantation in 2000 ha. and cashew plantation in 440 ha. by the end of 1984-85. During 1982, the Corporation planted 462.57 ha. with rubber against the target of 450 ha. The Corporation also maintains nurseries for the purpose of feeding the field plantation. The expenditure towards field planting and maintenance of nurseries is reported to be Rs. 98.07 lakhs. Besides, the Corporation undertook Civil works like construction of quarters, labour lanes, rest houses, roads, etc., ancillary to the implementation of the rubber planting project incurring an expenditure of Rs. 60.25 lakhs during the year. The total expenditure of the Corporation during the year was Rs. 177.40 lakhs for implementation of its various schemes.

4.37 The main source of income for the Corporation at present is the sale proceeds from plantations such as sugarcane, cashew, pineapple, coconut, etc. Having given up sugarcane cultivation, no fresh planting was taken up by the Corporation in 1981-82 and the sugarcane sold during the year was from the ratoon crop. During the year under review, the Corporation

earned a revenue of Rs. 6.15 lakhs which is less than the previous year's income by Rs. 2.47 lakhs. The loss incurred by the Company during 1981-82 is provisionally assessed at Rs. 3.09 lakhs.

### *The Plantation Corporation of Kerala*

4.38 The Plantation Corporation of Kerala is mainly engaged in the extensive cultivation and management of rubber and cashew plantations. The Corporation has 13,200 ha. of land, 54 per cent of it coming under rubber plantation and the rest under cashew plantation. The rubber plantations are spread over seven estates and cashew plantations over four estates.

4.39 The Corporation is implementing two World Bank aided cashew projects, one under Kerala Agricultural Development Project and the other under Multi State Cashew Development Project. The Corporation also manages the Alakode Estates comprising 440 ha. planted with rubber, cardamom and coffee. It is reported that the various new schemes for planting rubber and cashew are not materialising because the required land is not made available to the Corporation by the Government.

4.40 During 1981-82 the rubber production from the rubber plantations was 4938 tonnes against 4805 tonnes in the previous year. The Corporation owns four factories to process the rubber latex and scrap collected from the estates. Centrifuged latex, various grades of sheet rubber, crepe rubber, crumb rubber and skim rubber are processed in these factories. The Corporation has been making profit from the year 1973-74 onwards. The financial position of the Corporation continues to show improvement mainly due to increase in price of rubber. The profit of the Corporation increased from Rs. 32.81 lakhs in 1980-81 to Rs. 35.43 lakhs in 1981-82.

### *Oil Palm India Limited*

4.41 Oil Palm India Ltd., was established with the objective of large scale planting of oil palm and processing of palm oil. Planting of the crop is carried on in forest lands released to the Corporation by the Forest Department. The Corporation has at present two oil palm estates, one at Yeroor and the other at Chithara, both in Quilon District. It has also plantations under the Western Ghat Development Programme. The processing unit of the Corporation is located at Yeroor in Anchal.

4.42 During 1981-82 the Corporation planted oil palm in 500 ha. of land. Production of crude palm oil was 204.5 tonnes in 1981-82 against 158 tonnes in the previous year. The sales turnover increased from Rs. 10.65 lakhs in 1980-81 to Rs. 15.35 lakhs in 1981-82 as the quantity of crude palm oil sold increased from 130.89 tonnes to 212.29 tonnes. The earnings from nut fibre mixture was Rs. 18,197 in 1981-82.

4.43 The working of the Company resulted in a loss of Rs. 41.74 lakhs during the year under review as against Rs. 29.07 lakhs in last year. The increase in expenditure and the low yield from estates are reported to be the main reasons for the heavy loss.

### *Soil Conservation*

4.44 Substantial progress was registered in the matter of soil and water conservation during 1981-82 by bringing a total area of 3997 ha. under effective soil and water conservation measures as against 2518 ha. during the previous year. The increase in achievement over the previous year is 59 per cent. The conserved area in 1981-82 includes 1260 ha. under the scheme for soil and water conservation in arable lands by giving 25 per cent subsidy and 75 per cent loan, 142 ha. under soil conservation and integrated development of land on watershed basis, 62 ha. under reclamation of waterlogged area, 1632 ha. belonging to Harijans and Girijans for whom the works were carried out at 100 per cent subsidy, 76 ha. under soil conservation in irrigated lands, 100 ha. under soil and water conservation in River Valley Project, Idukki and 725 ha. under the centrally sponsored scheme for the Kerala portion of catchment of River Valley Project, Kundah.

### *Soil Survey*

4.45 The activities of the Soil Survey Wing of the Soil Conservation Department continued during 1981-82 with stress on soil survey of command areas and agriculturally potential areas. The total coverage under detailed soil survey during 1981-82 was 1,01,982 ha. registering an increase by 30 per cent over the previous year's achievement. The coverage under reconnaissance soil survey was only 2,18,722 ha. in 1981-82 as against 2,27,032 ha. in 1980-81. The Land Use Demonstration Scheme which made

substantial progress during the previous year registered a decline during 1981-82. The total coverage under this scheme was only 84.39 ha. as against 98 ha. in the previous year. In the context of an all out effort for increasing the productivity of crops in the State, this scheme deserves more attention. Other activities of the Soil Survey Wing during the year include soil correlation studies in the project areas of Pamba and Kallada Irrigation Projects, problem areas like Kuttanad, identification of Bench Mark Soils and initiation of detailed micro-morphological studies of these Bench Mark Soils and soil survey in soil conservation areas. Soil survey follow-up activities like preparation of soil map of Kuttanad, Attingal Agricultural Sub-Division, Poovachal, Kuttichal, Perumpazhuthur, Nedumangad, Neyyattinkara etc., were also in progress.

### *Land Use Board*

4.46 During the year under review the Land Use Board conducted studies on the land and water use efficiency in the command areas of Gayathri and Mangalam. The Board also undertook studies on (i) land use efficiency in the tribal settlements in Trivandrum District, and (ii) productivity difference in the paddy lands of Kerala. A sample survey of the fallow lands in Kerala taken up during the year is in progress. Reports published by the Board during 1981-82 include:

- (i) A note on increasing land and water use efficiency in the command area of Chalakudy Irrigation Project,
- (ii) Land and Water use efficiency in the command area of Peechi Irrigation Project,
- (iii) Land and Water use efficiency in the command area of Pothundy Irrigation Project,
- (iv) Land use efficiency in the command area of Periyar Valley Irrigation Project,
- (v) Study on the effect of urbanisation on agricultural lands,
- (vi) Report on the study of clay mining areas in Trichur district and
- (vii) Out door recreational facilities in urban areas in Kerala.

### *The Kerala Land Development Corporation*

4.47 The Kerala Land Development Corporation, a fully owned Government Company, was set up in 1972 with the objective of land development schemes to increase agricultural production by utilising institutional finance as medium-term loans. The twin important projects undertaken by the Corporation are the Kuttanad Development Project and the Trichur Kole Land Project. The first phase of the Kuttanad Project was completed in 1977.

4.48 The second phase of the Kuttanad Development Project was taken up in 1977-78 for completion by the end of 1984 with a revised estimate of Rs. 2141 lakhs envisaging the development of 1300 ha. of low lying fields known as 'Kole Lands'. About 52 ha. of land have been acquired under the scheme during 1981-82 incurring an expenditure of Rs. 80.84 lakhs. The major problem confronted by the project is reported to be the inordinate delay in land acquisition. The Government have sanctioned additional staff for speeding up the work.

4.49 The stay against revenue recovery proceedings against Kuttanad cultivators is still in force. The total amount of loan recoverable (excluding interest) till 1981-82, comes to Rs. 550.90 lakhs. The Corporation has so far received a total of Rs. 91.20 lakhs as revenue subsidy from the Government. The cumulative deficit of the Corporation declined from Rs. 183.80 lakhs to Rs. 112.41 lakhs in 1981-82.

TABLE 4.15

*Performance of the Kerala Land Development Corporation*

Particulars	Unit	1980-81	1981-82	Cumulative as on 31-3-1982
(1)	(2)	(3)	(4)	(5)
<b>A. Kuttanad Development Project</b>				
(i) Schemes Completed	No.	29	16	127
(ii) Area Covered	ha.	4071.50	1827.41	10087.04
(iii) Length of Bunds	Km.	147.27	69.60	434.21
(iv) Cost	Rs. lakhs	176.22	79.66	438.1
<b>B. Trichur Kole Project</b>				
(i) Land Requisitioned for Acquisition	ha.	0.20	370.23	652.44
(ii) Land Acquired	ha.	21.80	52.17	87.18
(iii) Cost	Rs. '000	90.03	80.34	286.31
<b>C. Financial Position</b>				
(i) Paid up Capital	Rs. lakhs.	95.00	102.40	462.40
(ii) Loans Recoverable	"	216.30	138.48	550.90
(iii) Revenue Subsidy Received.	"	20.00	7.20	91.20
(iv) Deficit	"	55.50	41.99	112.41

Source: The Kerala Land Development Corporation Limited.

**Agricultural Marketing**

4.50 Quality control of agricultural products through Agmark grading continued to be one of the main activities of the Marketing Wing of Agricultural Department during 1981-82. The four State Agmark Laboratories (one each at Trivandrum, Quilon, Alleppey and Irinjalakuda) and two approved private laboratories (Cochin and Trichur) graded 25,690 quintals of commodities viz. coconut oil, honey, gingelly oil and ground spices, valued at Rs. 530 lakhs during 1981-82, as against, 30 225 quintals, during 1980-81. In addition to the above laboratories, one State Laboratory was set up at Ernakulam during 1981-82. Apart from this, commodity surveys especially on coconut and pepper were also in progress during the year.

**Wynad Development**

4.51 Various development activities are being carried out in the Wynad area for its overall development. Under the Western Ghat Development Programme, three important projects are implemented: the Sugandagiri Cardamom Project, the Pookot Lake Dairy Project and the Intensive Silvi Pasture Development-cum-Livestock Project. Started in 1976, the Sugandagiri Cardamom Project envisages the rehabilitation and settlement of 750 families by forming a joint farming co-operative society. The Pookot Lake Dairy Project was started in 1979. It aims at the settlement of 110 tribal families by utilising vested forest land for dairy farming. The Intensive Silvi Pasture Development-cum-Livestock Project, a recent venture, aims at providing

training to the tribals in Silvi Pasture and establishment of milk chilling plants. It is reported that the Pookot Lake Dairy Project is facing financial difficulties while the Sugandagiri Project is making only tardy progress.

4.52 Other important development activities such as construction of roads, provision of irrigation facilities etc. are also taken up in Wynad area. During 1981-82 the whole amount allotted for the construction of road was spent. The important irrigation project in the Wynad area is the Karapuzha Project started in 1978-79 for irrigating 64650 ha. of land. Lack of finance and scarcity of important inputs like cement are hampering the progress of the project.

#### Kerala Agricultural University

4.53 Eleven graduate and post-graduate degree, two under-graduate diploma, and five post-graduate diploma courses were offered by the Kerala Agricultural University during the period under review. Of these, the four-year degree course in Co-operation and Banking B. Sc. (C & B), was started during the year with an annual intake of 50 students. Considering the dearth of graduates in the field of veterinary and animal sciences, the number of admissions has been increased from 60 to 80 from the academic year 1982-83. In the academic year 1981-82 there were 1454 students on the rolls of the University of which 203 were from outside the State viz. Lakshadweep, Andhra Pradesh, Pondicherry, Tripura, Meghalaya, Manipur, Bhutan, Jammu and Kashmir, Kenya, Nigeria and Zimbabwe. Scholarships and assistance were given to 682 students. Hostel facilities were provided to 1172 students. Building up of additional hostel facilities was in progress during the year.

4.54 On the research side thrust was given to problem-oriented research of applied nature. Adaptive research to evaluate and refine the newly developed technology was also carried out under farmer's field conditions. The Radio Tracer Laboratory constructed and equipped with assistance from KADP was commissioned during the year. In view of the urgency of research on root (wilt) disease of coconut, the University has intensified its multi-disciplinary studies on it. New varieties released by the University include:

(i) *Suvarnamodan*: PTB-42 (ARC-11775)—a selection from Assam Rice Collections, which is moderately resistant to blast disease and suitable for upland conditions giving a yield of 1650 to 2000 kg. of grain per ha. This yield range is 15 per cent higher than the best upland variety available;

(ii) *Pavizham*: MO-6 (Culture 23-33-3-1)—another rice variety has shown good field tolerance to brown plant hopper, bacterial leaf blight and sheath blight. Its yield potential is 5 to 6 tonnes per ha. and duration 115 to 118 days.

4/723/MC.

(iii) *Krishnamany*: PTB-2 (Culture-18)—a cow-pea selection suitable for cultivation in rice fallows during third crop season (duration of 50 to 60 days) gives a grain yield of 600 kgs. per ha.

(iv) *Priya*: culture MC-23-A—a bitter gourd selection from Cannanore local has very high yield potential. A few varieties of rice, sugarcane, cashew, cucumber, tomato, snakegourd, pepper, turmeric, cardamom and lemongrass are in advanced stage of testing. Besides these varieties being evolved in the State, a few varieties of different crops produced elsewhere are also being tested for adaptability under Kerala conditions. The progress made in this direction gives hope for rapid increase in productivity of crops.

4.55 On the extension education side, the KAU has provided technical expertise to the field extension personnel of various departments to disseminate scientific and technological information to the farmers through a variety of media and technical assistance to voluntary service organisations, credit institutions etc.

TABLE 4.16  
Student Statistics of KAU for the year 1980-81 and 1981-82

Programme	1980-81		1981-82	
	Admissions/Successful Completion		Admissions/Successful Completion	
(1)	(2)	(3)	(4)	(5)
<i>Degree Programme</i>				
B.Sc. (Ag.)	128	87	187	85
B.Sc. (Hort.)	40	27	..	34
B.V.Sc. & A.H.	77	50	96	4
B.F.Sc.	30	..	30	..
B.Sc.(C&B)	..	..	51	..
<i>Diploma</i>				
Diploma in Agrl. Science	50	38	50	48
Diploma in Agrl. and Rural Engg.	30	..	29	..
<i>Post-Graduate Degree Courses</i>				
M.Sc. (Ag.)	52	45	54	17
M.Sc. (Ag. Stat.)	5	7	5	1
M.Sc. (Ag. Engg.)	4	..	4	2
M.Sc. (Hort.)	14	6	14	3
M.V.Sc.	18	12	8	29
Ph.D. Agriculture	11	2	7	4
Ph.D. Horticulture	6	..	2	..
Ph.D.Vety. & Animal Sciences	..	2	3	2
<i>Post-graduate Diploma</i>				
Natural Rubber Production	4	4	4	4
Plant Protection	3	..	2	3
Soil Sciences	7	..	5	7
Land and Water Resources Development and Management	5	..	4	..
Vety. and Animal Sciences	9	12	13	9

Source: Kerala Agricultural University.



### Central Tuber Crops Research Institute

4.56 During the year 1981-82 the Institute released four improved cultivars, two in cassava (tapioca) one each in sweet potato and yam. The two cassava hybrids viz. Sri Vishakam (H-1687) and Sri Sahya (H-2304) gave mean tuber yields of 45 tonnes per ha. each. Compared to M4, the standard improved cultivar, which yields upto 28 tonnes per ha. the yield potential of Sri Vishakam and Sri Sahya is appreciably high. The starch content of Sri Sahya is about 29 per cent which results in higher recovery of dry chips. The tubers of Sri Vishakam contains 470 IU (International Units) of carotene, enhancing the nutritional quality. This is possibly the first time that presence of carotene has been combined with higher yields in an improved cassava cultivar. Under the Lab to Land Programme, the use of these cultivars enabled the farmers to obtain additional income of Rs. 2500 to Rs. 4400 per ha. The sweet potato hybrid H-268 developed in the Institute has given 30 per cent more yield than the local cultivar in minikit trials carried out in Kerala for three years. In yam a variety which has yielded 9 to 24 tonnes of tubers per ha. has been recommended for general release by the Kerala State Variety Release Committee under the name Sree Latha. Large scale introduction trials carried out with seedling populations has enabled the identification of some lines yielding upto 40-45 tonnes per ha. against the 20-30 tonnes per ha. obtained from the Indian yam species under similar conditions. This material is now under trial for release. Studies conducted by Institute on the effect of sulphur containing fertilizers on the yield and quality of cassava in acid laterite soils have shown that use of sulphur containing fertilizers could result in an additional income of about Rs. 1100 per ha. The Institute has developed effective chemical control measures against spider mites, a serious pest on cassava. However it is more economical and safer to use resistant varieties. Therefore the Institute has taken up a programme for screening cassava germ plasm for their reaction to mites. Studies for improving the storage quality of cassava chips and tubers are also in progress.

### Central Plantation Crops Research Institute

4.57 Central Plantation Crops Research Institute continued its crop improvement research on 12 plantation crops and spices viz. coconut, areca-nut, cashew, cocoa, oil palm, and spices like pepper, cardamom, ginger, turmeric, nutmeg, clove and cinnamon, giving thrust on developing suitable production technology to enhance the per unit area productivity. The Institute has also taken up actively the ICAR Lab to Land Programme-Phase II, under which 425 families ranging from landless to those having land upto 2 ha. were adopted for implementing the programme. Two training cum discussion seminars, one on coconut and arecanut production technology and another on vegetative propagation of cashew were conducted during the year benefiting 82 officers/subject matter specialists of the

Department of Horticulture|Agriculture of various states. Training programmes on various aspects of plantation crops for the benefit of farmers, students of agriculture, and officers of Government and private organisations were also conducted during the year.

### Farm Information Bureau

4.58 The Farm Information Bureau (FIB) continued to provide information support to various development programmes of the Department of Agriculture, Animal Husbandry, Dairy Development, Co-operation and other agencies in agriculture and allied sectors.

4.59 The activities of the FIB during the year 1981-82 include publishing of 1.41 lakh copies of the fortnightly journal "Kerala Karshakan" as against 1.76 lakh copies of the same in 1980-81, 6800 copies of "Farm Guide 1982", 144800 copies of leaflets, posters, folders, 7200 copies of wall News Paper, and release of 163 display advertisements. The FIB has arranged 6 major exhibitions at Taluk and District headquarters, 29 rural exhibitions and 20 Kissan melas in 1981-82 as against 7 major exhibitions, 14 rural exhibitions and 16 Kissan melas in 1980-81. One hundred new libraries were brought under the scheme for Farm Book Corner in Rural Libraries during the year making the Progressive total coverage as 2246 libraries out of 4500 in the State.

## PLANTATIONS

### Rubber

4.60 Among the plantations in the State rubber occupies the prime place with regard to the area under cultivation and income earned by it. During 1981-82 the area under rubber in the State increased by 10.2 thousand ha. but production registered a marginal set-back by 878 tonnes mainly due to adverse climatic conditions. The prolonged rains in the rubber growing areas during the tapping season disrupted continuous tapping which had its effect on total out turn. There has also been marginal decline in yield from 790 kg. per ha. to 770 kg. per ha. (See Table 4.17).

4.61 Nearly 89 per cent of the area and 92 per cent of the production of rubber in the country is accounted for by Kerala. The all India figures of area, production and yield show the same trend of the respective figures for Kerala. But the yield rate at all India level is higher than the yield rate in Kerala. In the wake of comparatively high yield in other regions and the increasing demand for natural rubber, the Rubber Board is taking measures to extend cultivation to non-conventional areas also. The possibilities of economic production of rubber in high altitude regions is also being explored by the Rubber Board

4.62 The average market price of indigenous natural rubber was attractive during 1981-82. Compared to the previous year there has been an increase in market price by Rs. 218 per quintal (18 per cent) during 1981-82 (See Table 4.18). The shortfall in the production of synthetic rubber from the targetted levels, and its comparatively high cost might have enhanced the demand for natural rubber.

4.63 During 1981-82 there was an increase in the import of natural rubber into the country

by 32,030 tonnes and synthetic rubber by 7552 tonnes. The import of natural rubber included the spill over from the quantity sanctioned during the previous year. Consumption of both natural rubber and synthetic rubber in the country improved during the year under review, the former by 8.5 per cent and the latter by 2.75 per cent. The total consumption of rubber including reclaimed rubber in the country increased from 2.46 lakh tonnes in 1980-81 to 2.63 lakh tonnes in 1981-82 (See Appendix 4.6)

TABLE 4.17

Area, Production and Yield of Rubber—Kerala and India

Year	Kerala			India		
	Area ('000ha.)	Production (tonne)	Yield kg/ha	Area ('000 ha)	Production (tonne)	Yield (kg./ha)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1978-79	224.8	123,677	698	249.2	135,297	710
1979-80	229.4	136,619	764	256.1	148,470	770
1980-81	237.8	140,333	790	268.0	153,100	790
1981-82	248.0	139,455	770	280.0	152,870	780

Note: Area Refers to Total Area Including Unregistered Area

Source: Rubber Board, Kottayam

TABLE 4.18

Average Market Price of Indigenous Natural Rubber at Kottayam Market

(RMA 3, 4, 5 Grades)

Year	Price per Quintal
(1)	(2)
1978-79	953.43
1979-80	1016.51
1980-81	1212.20
1981-82	1430.65
1982-83 (April to December)	1422.11

Source: Rubber Board, Kottayam.

### Tea

4.64 Of the plantations in Kerala, tea provides the largest employment opportunity. Tea is estimated to provide employment to about one lakh workers in the State. Kerala accounts for nearly 48.5 per cent of the tea area in South India and 9 per cent of tea area in India as a whole.

4.65 Tea plantations in Kerala (as well as in India as a whole) were on a standstill, for some time mainly on account of the depressed prices

at international markets and the rising cost of inputs. The industry is now beginning to show symptoms of recovery utilizing the relief measures provided by the Union Government. Production of tea in Kerala rose from 47,631 tonnes in 1981 to 52,229 tonnes in 1982. This uptrend in tea production is, however, not seen reflected in the all India production of tea. Tea production at all India level registered a decline by 3 per cent following a decline in yield of the same rate (See Table 4.19).

4.66 There is a general impression that the area under tea is showing a declining trend in Kerala while in the rest of India the area has been increasing. Available statistics however point to a static area both at the State and all India levels. There is also scope for expansion of tea area in some regions in the State. Since more than 77 per cent of the tea area in the State falls under a comparatively high range of yield (1500 kg. to 2000 kg.), and has chance for further improvement, the plantations in Kerala have still considerable potential for development. Improvements in cultural practices, rejuvenation, infilling, replanting etc. are the measures for improving the performance of tea plantations in Kerala. The guidelines issued to commercial banks by RBI based on recommendations of the Chore Committee for provision of finance to tea sector are expected to help development measures.

4.67 On the price front, both at the State level and at all India level, there has been modest improvement in 1981 (See Table 4.20). While the percentage increase of Kerala tea sold in Cochin auctions was only 2.7, the rise for tea at all India auction was 4.2. The prices at all India level since 1978 have been higher than the

prices at Cochin auctions. Export data for 1980 and 1981 show that tea exported from India reached an all time record of 249.68 million kg. valued at Rs. 443.03 crores in 1981 against 224.65 million kg. valued at Rs. 406.30 crores in 1980.

TABLE 4.19

Area, Production and Yield of Tea—Kerala &amp; India

Year	Kerala			India		
	Area (ha)	Production (tonnes)	Yield (Kg/ha)	Area (ha)	Production (tonnes)	Yield (Kg/ha)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980	36125	53614	1484	378447	571661	1511
1981	36125	47631	1319	378447	560682	1482
1982	36125	52229**	1446	378447	542214†	1433

\*\*Upto November 1982.

†Estimate

Source: UPASI, Coonoor

TABLE 4.20

Average Sale Price of Tea

Year	Kerala*	India
(1)	(2)	(3)
1978	11.42	12.41
1979	11.22	12.24
1980	12.18	12.54
1981	12.51	13.07

\*Sales price of Kerala Tea sold in Cochin Auctions.

Source: UPASI, Coonoor

### Coffee

4.68 Both the production and productivity of coffee in the State registered considerable fall in 1982 compared to the previous year. But

coffee area in the State noted a marginal expansion of 385 hectare. At All India level, the same phenomena were recorded with the area under cultivation noting marginal expansion and production and yield registering considerable decline (See Table 4.21).

4.69 The coffee situation at present in Kerala is reported to be gloomy because of the rising cost, a sluggish export market, a stagnant internal market and falling export price (See Table 4.22). On account of the sluggishness in export market, coffee export quota allotted to India by the International Coffee Organisation for 1982-83 was only 38,551 tonnes against 54,975 tonnes in the previous year. The most important problem in the coffee industry in India is a stagnant domestic market. Hence the exportable surplus has to be disposed at the international markets with marginal erosion in unit realisation.

TABLE 4.21

Area, Production and Yield of Coffee—Kerala and India

Year	Kerala			India		
	Area (ha)	Production (tonnes)	Yield (Kg/ha)	Area (ha)	Production (tonnes)	Yield (Kg/ha)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1978	51708	28465	551	192248	125045	651
1979	56154	22940	409	196228	110474	563
1980	57564	36475	634	199692	149900	751
1981	57949	26975	466	208260	118600	570

TABLE 4.22  
Auction Sale Price of Coffee

(Price in Rs. per 50 kgs.)

Grade	Internal Sales (Inclusive of Excise Duty)		Exports (Exclusive of All Taxes and Duties)	
	1980	1981	1980	1981
(1)	(2)	(3)	(4)	(5)
Plantation 'A'	524.25	586.50	1096.50	1060.00
Arabica Cherry 'AB'	452.00	493.75	963.50	976.50
Robusta Cherry 'AB'	424.75	469.75	949.50	864.50

Source: Coffee Board, Bangalore.

### Cardamom

4.70 Kerala accounts for 60 per cent of the cardamom area and 68 per cent of the cardamom production in the country. The yield rate of cardamom in Kerala is comparatively high and is greater than the All India average yield.

4.71 During 1981-82 production of cardamom in Kerala declined by 300 tonnes and yield by 5 kg. per hectare. All India production and yield have also showed decline of the same magnitude (See Table 4.23). On the price front, while the internal prices both in Kerala and at All India level maintained a modest step up, the external prices registered notable falls. However the increase in auction price was more favourable at All India level and the decline in export price for Kerala cardamom was less severe (See Table 4.24).

4.72 The important problem of the cardamom industry is the tough competition it has to face in international market especially from Guatemala. The export price since 1978-79 has been showing a continuous declining trend. Compared to the price level in 1978-79 there has been a decline of 35 per cent in export price in 1981-82 both for Kerala cardamom and All India cardamom. Since a good proportion of the cardamom produced in the country is exported, the changes in export price adversely affect the industry. Planting of new varieties, avoidance of crop loss by improving the curing percentage etc., are some of the recommended suggestions for bettering the prospects of cardamom.

TABLE 4.23  
Area Production and Yield of Cardamom—Kerala and India

Year	Kerala			India		
	Area (ha)	Production (tonnes)	Yield (Kg/ha)	Area (ha)	Production (tonnes)	Yield (Kg/ha)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1978-79	55180	2900	53	92751	4000	43
1979-80	56376	3300	59	93947	4500	48
1980-81	56376	3100	55	93947	4400	47
1981-82	56376	2800	50	93947	4100	44

Source: Cardamom Board, Cochin.

TABLE 4.24  
Average Auction Price and Export Price of  
Cardamom—Kerala and India

Year	Kerala		India	
	Auction Price (Rs./kg)	Export Price (Rs./kg)	Auction Price (Rs./kg)	Export Price (Rs./kg)
(1)	(2)	(3)	(4)	(5)
1978-79	178.71	204.30	166.42	202.92
1979-80	141.98	185.78	134.88	184.23
1980-81	108.51	150.51	98.91	148.18
1981-82	120.73	132.17	115.80	130.00

Source: Cardamom Board, Cochin.

### Land Reforms

4.73 A review of the progress of implementation of the Kerala Land Reforms Act shows that the provisions relating to Tenancy and Kudikidappu rights have been implemented almost in full. Till the end of November 1982, 37.43 lakh tenancy cases were filed for assignment of the rights of which 37.31 lakh (99.7 per cent) cases were disposed of. Of the disposed cases 24.95 lakh (66.9 per cent) cases were allowed, 7.66 lakh (20.5 per cent) cases were rejected, and 4.70 lakh (12.6 per cent) cases were under other disposals. Applications numbering 11,454 remain to be disposed of at the end of November 1982. The number of certificates of purchase issued upto November 1982 was 24.80 lakhs, i.e. 99.4 per cent of the allowed cases. During the review year 1982, 66994 tenancy cases were newly filed and 65,346 cases disposed of. Of this 16,922 cases were allowed 5,916 cases were rejected and 43,008 cases were disposed of otherwise.

4.74 Till November 1982 a total number of 4.48 lakh kudikidappukars filed applications for the purchase of their hutments and the land appurtenant thereto. Out of this, 4.45 lakh (99.3 per cent) cases were disposed of. This comprises 2.75 lakh (61.7 per cent) cases allowed, 1.51 lakh (33.9 per cent) cases rejected and 0.19 lakh (4.4 per cent) cases under other disposals. The balance of applications to be disposed of is 3,589. Of the total allowed cases 2.62 lakh (95.37 per cent) kudikidappukars have been issued certificates of purchase till the end of November 1982. During the review year 3,744 Kudikidappu cases were newly filed and 4,449 cases were disposed of. Of these, 2,744 cases were allowed, 1,672 cases were rejected and 33 cases were disposed off otherwise.

4.75 In the case of ceiling provision and declaration of surplus land, 77,691 ceiling returns were filed up to the end of 1982. Out of these, 74,979 returns (96.50 per cent) were decided and 2,712 returns (3.50 per cent) remain yet to be decided. During the review year the area ordered to be surrendered was 1.69 lakh acres. The legal exemptions from the High Court of Kerala reduced the net extent of surrender to 1.25 lakh acres. The extent of land taken over was about 86,177 acres and the net extent taken over was 81,781 acres. Till the end of 1982 the surplus land distributed was 54,422 acres i.e., 66.54 per cent of the total surplus and 2069 acres (2.53 per cent) are available for further distribution. The area reserved for public purposes is 16,362 acres. About 2,897 acres are covered by stay against assignment and 6,030 acres have not been distributed due to gift, vested forest etc.

#### *Assignment of Puramboke Lands*

4.76 The extent of net puramboke land available for assignment by the end of November 1982 was estimated at 4.83 lakh acres. Out of this, 4.23 lakh acres (87.99 per cent) were assigned to 506,034 beneficiary families. Out of these, 64,388 acres (15.16 per cent) were distributed to 88,201 scheduled caste and scheduled tribe families, 6,498 acres (1.53 per cent) were distributed to 4,210 ex-service men families and 353,723 acres (83.30 per cent) were distributed to 413,623 families of other groups and 57,931 acres are available for further distribution.

4.77 The scheme of Resurvey of the State is the only plan scheme implemented from 1966-67 by the Survey and Land Records Department. At present 12 resurvey parties are conducting resurvey work. Out of the total area of 32,510 sq. kms. for resurvey in the State, the field work has been completed in an area of 17,278 sq. kms. and office work relating to an area of 10,155 sq. kms., till the end of the review year. A total amount of Rs. 2945.46 lakhs has been spent for this scheme till the end of 1982. During 1982 alone, the resurvey field work has been completed in an area of 1280 sq. km. and resurvey office work in an area of 673 sq. kms.

4.78 As a part of the land reform measures, suitable land development programmes are drawn up to help beneficiaries of the distribution of surplus land. Financial assistance is provided to make full utilisation of the lands assigned to them. Besides, programmes are implemented to make available credit facilities, technical support and infrastructure facilities to the beneficiaries to undertake development activities. A housing scheme is also being implemented for giving financial assistance to the ex-kudikidappukars for construction of new houses and the maintenance of old ones. A considerable proportion of the beneficiaries of this scheme comprised of scheduled castes and scheduled tribes.

#### *Livestock Development*

4.79 The agencies functioning in the field of livestock development are the Animal Husbandry Department, Dairy Development Department, Kerala Livestock Development and Milk Marketing Board and the recently formed Kerala Co-operative Milk Marketing Federation Limited. The progress achieved in this sector is the result of the multi-pronged efforts of these agencies for cattle breeding, veterinary aid, fodder development and milk marketing. Now the supply of livestock products viz; milk, meat and egg, has increased considerably. The milk production in the State has gone up from 9.08 lakh tonnes in 1980-81 to 9.50 lakh tonnes in 1981-82, resulting in a slight increase in the per capita availability of milk per day. The per capita availability of milk per day in the State is estimated at 100.34 grams in 1981-82 as against 97 grams in 1980-81.

4.80 The Animal Husbandry and Dairy Development Departments have been implementing programmes of cross breeding with a view to improve the genetic qualities of the livestock in the State. A total number of 8.54 lakh artificial inseminations were carried out by Animal Husbandry and Dairy Development Departments during 1981-82 compared to 9.33 lakh inseminations in 1980-81.

During 1981-82, 591 anti-sterility camps, discussion classes, seminars, group meetings and 100 cattle shows were conducted by the Dairy Development Department. The number of calf births recorded by the Dairy Development Department, has increased from 64,897 in 1980-81 to 67,146 in 1981-82. A total number of 33,252 cross-bred female calves were brought under the programme of deworming of calves. In addition 602 model cattle sheds were constructed.

4.81 The increase in the production of chicks by the Animal Husbandry Department has shown that the Department has given more emphasis to developing the poultry wing. The estimate of egg production in the State stood at 980 million during 1981-82 as against 962 million in 1980-81. Meat production in the State has gone up from 16.6 thousand tonnes in 1980-81 to 16.9 thousand tonnes in 1981-82.

4.82 Animal health care programmes are being implemented by the Animal Husbandry Department. The infrastructure provided for this include 30 veterinary polyclinics, 394 veterinary hospitals, 135 veterinary dispensaries and 633 other departmental institutions. About 32 lakh animals were treated for various diseases in all these institutions during 1981-82. Besides about 41 lakh vaccinations/inoculations were conducted on livestock and poultry to check and control diseases. During 1981-82, the veterinary hospital in Mukundapuram taluk has been upgraded into a full-fledged polyclinic. Eradication of animal diseases, especially mastitis in cows, and discovery of other diseases through laboratory testing were carried out in this polyclinic. The Institution would also distribute seeds, seedlings and fertilisers free of cost for cultivation of high variety of fodder. The details on animal husbandry and livestock development activities carried out during 1980-81 and 1981-82 are given in Appendix 4.10.

4.83 The Kerala Livestock Development and Milk Marketing Board is responsible for the procurement, processing, and marketing of milk and milk products, production and distribution of semen, liquid nitrogen, fodder, seedlings and compounded cattle-feed. During 1981-82, the Board has produced 8 lakh doses of frozen semen, 28 thousand doses of buffalo semen and 2 lakhs doses of C. M. E. semen. Four regional semen banks were maintained at strategic locations for making available frozen semen to the utilisation points. About 3 lakh litres of liquid nitrogen was also produced by the Board to preserve the frozen semen. The frozen semen produced by the Board is supplied through 850 cattle breeding centres located throughout the State. Action is being taken by the Board to bring the whole area in the State under frozen semen scheme in a phased manner. A total of 554 cattle breeding centres/units were functioning under the Dairy Development Department during 1981-82.

4.84 The KLD and MM Board is also responsible for making available grass and legume seeds of suitable varieties for intensive cultivation of fodder by dairy farmers with a view to make dairying economical. The Dairy Development Department has distributed 121 lakh root slips for setting up fodder plots. The system of supplying rooted grass slips has been completely replaced with the new system of making available grass legume seed mixtures. About 11 thousand tonnes of grass legume seeds were distributed to dairy farmers and 2290 hectares of land were brought under fodder cultivation during the year 1981-82. Three fodder banks and 20 silo pits have been constructed.

4.85 During 1981-82, 14 milk chilling plants and 5 dairy plants were operated under the Board with a total installed capacity of 60 thousand litres/day. The total quantity of milk procured during the year was 156.87 lakh litres. The average procurement price of milk per litre was

Rs. 2.00 and average sale price of milk per litre was Rs. 2.80. Milk Marketing has been carried out on a co-operative basis. The number of primary milk supply societies has been increased from 928 to 1043 having a paid up share capital of Rs. 42 lakhs. Various assistance have been given to the milk supply co-operative societies. Five hundred milk cans have been purchased and distributed to the milk supply societies.

4.86 The Operation Flood II programme in the State, now entering the second year of its implementation, has recorded slow but steady progress. Besides, the formation of Anand Pattern Co-operative Societies, the programme also envisages the setting up of the infrastructure for milk processing and marketing and provision of technical inputs required for milk production.

4.87 The Kerala Co-operative Milk Marketing Federation formed for the implementation of the Operation Flood-II programme is similar in pattern to that of Anand in Gujarat. The original target of the programme was to start 1800 Anand pattern dairy co-operative societies in five years spread across seven districts. Four lakh cows will be brought under Operation Flood-II programme. Along with the projects implementation, a large number of chilling units, dairies and marketing centres will be established. The chilling plants and the dairies functioning under the control of MILMA will be handed over to the Kerala Co-operative Milk Marketing Federation. Till now, the Federation has organised more than 140 Anand pattern co-operative societies, which supply more than 22,000 litres of milk per day to the dairies.

#### *Fisheries*

4.88 Kerala stands foremost among the fish producing States in the country. It produced 3 lakh tonnes of fish in 1981, from both marine and inland sources. From almost subsistence activities conducted with conventional fishing craft, fisheries has now developed in the State as an organised industry employing over three thousand mechanised boats. In 1981-82 Kerala has exported 32,006 tonnes of marine products valued at Rs. 125.12 crores. The contribution of fisheries sector to state income during 1980-81 (at current prices) is estimated at Rs. 79.27 crores as against Rs. 65 crores in 1979-80. The annual per capita consumption of fish in the State was 8.9 kg. in 1981-82.

#### *Marine Fish Production*

4.89 The total marine fish production in India during 1981 was 13.78 lakh tonnes as compared to 12.50 lakh tonnes during 1980, showing an increase of 10.24 per cent. The total marine fish production in Kerala in 1981 was 2.74 lakh tonnes which constituted about 20 per cent of the total marine fish production in the country. Contribution of Kerala's share to the total marine

fish production of the country has been decreasing since 1971. However, Kerala continued to be the principal marine fish producing State among the maritime States in India, followed by Maharashtra and Tamil Nadu. In 1981 Kerala accounted for the highest catch of pelagic group of fishes which comprises, elasmobranchs, eels, cat fishes, lizard fishes, perches, red mullets, polynemids, sciaenids, silver bellies, lactarius, pomfrets, soles, prawns, lobsters and cephalopods. As regards demersal group of fishes Kerala has only the fourth rank. Details on annual marine fish landings in Kerala and India from 1971 to 1981 are given in Table 4.25

TABLE 4.25  
Annual Marine Fish Landings in Kerala and India  
(1971-1981)

(Quantity in '000 tonnes)			
Year	Kerala	India	Percentage of Kerala to India
(1)	(2)	(3)	(4)
1971	445	1161	38
1972	296	980	30
1973	448	1220	37
1974	420	1218	35
1975	421	1423	30
1976	331	1353	25
1977	345	1260	27
1978	373	1404	27
1979	331	1388	24
1980	280	1250	22
1981	274	1378	20

4.90 The total marine fish catches in Kerala during 1981 showed a marginal decline by 5148 tonnes (1.84%), compared to the previous year. In 1981 also oil sardine continued as the principal marine fish catch by contributing 53.5 per cent of the total landings. In this year the production of prawns, mackerel, cat fishes and perches represented 8.1 per cent, 5.9 per cent, 3.5 per cent and 3.1 per cent respectively of the total marine fish production. Details on the composition of marine fish landings in Kerala for the period from 1977 to 1981 and the average fish production for 1977-81 are given in Appendix 4.11.

4.91 It may be noted that in 1981 the production of oil sardine was the highest in Cannanore district compared to the other coastal districts in the State. Quilon district stands

as principal producer of prawns, perches and cat fishes. The landings of mackerel was the highest in Ernakulam district. Data on the district-wise and species-wise distribution of marine fish landings in Kerala in 1981 is shown in Appendix 4.12.

4.92 In 1981, a significant increase in the catch of oil sardine by about 77,300 tonnes was noticed. The production of oil sardine has increased from 69,700 tonnes in 1980 to 147,000 tonnes in 1981 witnessing about 111 per cent step up. However, another major fishery of the state, prawn fishery, suffered a set back with a decline of about 30,000 tonnes (57.60%). This was to a great extent due to the fall in the catches of prawns in Sakthikulangara, an important fishing centre in Kerala, to the tune of about 27,000 tonnes in 1981 as compared to 1980. The other important species that witnessed a decline in their landings were perches, ribbon fish, tunnies, cat fish, elasmobranchs, lesser sardines and pomfrets, the reduction being about 9300, 5900, 5100, 4400, 2000, 3400 and 2300 tonnes respectively. Data on the annual landings of marine fishes in Kerala, for the period from 1977 to 1981 is given in Table 4.26.

TABLE 4.26  
Annual Landings of Marine Fishes in Kerala (1977-1981)  
(Quantity in '000 tonnes)

Species	1977	1978	1979	1980	1981
(1)	(2)	(3)	(4)	(5)	(6)
Oil Sardine	117.4	119.9	116.8	69.7	147.0
Mackerel	20.0	25.9	18.5	18.4	16.2
Prawns	40.3	45.4	29.5	52.6	22.3
Other Species	167.3	182.1	165.7	138.3	88.9
Total	345.0	373.0	330.5	279.0	274.4

4.93 An analysis of the average annual marine fish production in the State for 1972-76 and 1977-81 shows that the production has witnessed a decline from 383 thousand tonnes to 320 thousand tonnes. The actual variation in the average annual production during the period was 62.6 thousand tonnes, registering a decrease of 16.3 in percentage terms. As far as oil sardine is concerned over the period there was a slight increase of about 4000 tonnes, but for mackerel the trend of production stands stagnant. At the same period, the average annual catches of prawn fishery has considerably declined, recording a reduction of 20 thousand tonnes in absolute terms and 35 in percentage terms. Table 4.27 shows the average annual marine fish production in Kerala for the periods 1972-76 and 1977-81.

TABLE 4.27

Average Annual Marine Fish Production in Kerala, 1972-76 and 1977-81

(Quantity in '000 Tonnes)

Species	Average Annual Production for 1972-76		Average Annual Production for 1977-81		Variation	
	Actual	Per cent	Actual	Per cent	Actual	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Oil Sardine	110.1	28.7	114.2	35.6	4.1	3.7
Mackerel	19.9	5.2	19.8	6.2	(-) 0.1	(-) 0.5
Prawns	58.4	15.2	37.9	11.8	(-) 20.5	(-) 35.1
Others	194.8	50.9	148.7	46.4	(-) 46.1	(-) 23.7
Total	383.2	100.0	320.6	100.0	(-) 62.6	(-) 16.3

4.94 As there has been a decline in the landings of oil sardine and mackerel during the previous years, a special survey was conducted by the CMFRI in May 1981 to find out the impact of purse-seine operations on the indigenous fisheries. The survey was carried out in 41 fish landing centres in the region Quilon to Manjeswar. From the analysis of data collected through the survey it appears that the effect of purse-seining, at the present level of exploitation and availability, is not tangibly felt on the indigenous fishery off Kerala coast. In support of this view, it may be pointed out that, even though there has been a marked decline in the landings of oil sardine in 1980, compared to the previous years, in 1981 there has been a revival of oil sardine fishery.

4.95 In the context of the decreasing trend in the marine fish production in the State as well as in the country, programmes like the survey of marine resources, regulation in marine fishing, research on mariculture etc. deserve the special attention of fishery experts and administrators. As far as the survey of marine resources is concerned, a vessel belonging to the Exploratory Fisheries Project, is engaged in the survey of marine fishery resources in Wadge Bank. The results of the survey indicate that the exploitation of fishery resources from the area is commercially feasible. Another fishery research vessel owned by the CMFRI, has arrived very recently at Cochin for the resources assessment of the Arabian sea. The vessel is intended to be put to use to bridge the gaps in the knowledge of marine fishery resources, particularly of those beyond the traditional fishing grounds.

4.96 The Kerala Marine Fishing Regulations Act, 1980 was enacted with a view to prevent the occasional clashes in mid sea between fishermen groups of mechanised boats and country crafts. As per the provisions of the Act, purse-seine boats are barred from operating within 22 Km. limit off the sea coast. The sea to a depth of 8 fathoms (50 ft.) is reserved for country crafts and 8 to 10 fathoms for country

crafts fitted with outboard engines. The area reserved for mechanised boats is the 10 to 22 km. zone. Based on the provisions of the Act, the Government had totally banned the operation of purse-seine boats in the territorial waters of Kerala. The Fisheries Department has now intensified its search of purse-seine boats violating the 22 km. ban by introducing a marine patrol boat which is made of fibre glass and equipped with electronic radar and radio telephone system. Further, in August 1981, the Government had constituted a committee consisting of fisheries experts, administrators and representatives of fishermen, to enquire into the need for seasonal conservation of marine fishery resources and allied matters. The committee has submitted its report to the Government.

4.97 It is a fact that the increasing pace of mechanisation in fishing has resulted in conflicts between the mechanised and artisanal sectors. With a view to solve the problem, the CMFRI, in collaboration with the Indian Agricultural Statistics Research Institute, has undertaken a comparative study of the socio economic status of the fishermen of Puthiappa-Puthiangadi, and Elathur villages. Puthiappa-Puthiangadi is a region where the ARDC mechanisation programme has been in vogue and Elathur is an adjacent village where only traditional non-mechanised canoes operate. The interim report of the study reveals that mechanisation has induced a large number of fishermen in Puthiappa region to shift from traditional to mechanised fishing. As a result the fish landings in the region has increased and more employment opportunities were created in fishing and allied activities like net making, ice plant and workshop operations, sorting, auctioning, transporting and fish trading. The absence of such economic activities in the Elathur Village is a pointer to the importance of provision of credit facilities to invest in improved fishing techniques. Another important feature observed in Puthiappa-Puthiangadi area is the compatibility of



mechanised and indigenous fishing sectors by using mechanised boats for dorry fishing in off-season.

4.98 Culture fisheries is also capable of increasing the State's fish production. But the non-availability of fish seed is one of the main constraints in spreading mariculture on a large scale. With a view to solve the problem, the prawn culture laboratory at Njarakkal owned by the CMFRI, is engaged in the production of prawn seeds. Several species of prawns have been fully domesticated in the laboratory for seed to seed production. A pilot hatchery for prawn seed production is also under development at the CMFRI and later it would become possible to establish small scale prawn hatcheries at the village level.

#### *Marine Products Exports*

4.99 During 1981-82 the value of exports of marine products from Kerala reached the highest level ever recorded. The exports rose from 29,148 tonnes in 1980-81 to 32,006 tonnes in 1981-82, marking an increase in value realisation from Rs. 95.34 crores to Rs. 125.12 crores. The increase in exports over the previous year was 2858 tonnes in terms of quantity and Rs. 29.78 crores in terms of value, recording a rise of 9.9 per cent in quantity and 31.2 per cent in value. In 1981-82 also Kerala continued to be the principal State of shipment for marine products exports from India handling about 46 per cent of exports in terms of quantity and 44 per cent in terms of value.

4.100 In 1981-82 the value of Indian marine products exports rose to as high as Rs. 286.01 crores, an all time record. Compared to the exports of Rs. 234.84 crores achieved in 1980-81, the 1981-82 exports were higher by 22 per cent. The previous peak was Rs. 248.82 crores recorded in 1979-80. Higher export prices steady market conditions abroad and higher rupee realisation per US dollar (on account of strong dollar) were the major factors which contributed to the sharp increase in India's export earnings during 1981-82. In terms of quantity, at the all India level, the exports suffered a 7 per cent fall during 1981-82 when the shipment declined to 70,105 tonnes as against 75,591 tonnes effected in 1980-81. This set back could be attributed to the decline in the shipments of items like fresh/frozen fish, dried fish, fish meal etc. The reduction in the quantum of exports was also due to decline in catches of fish and strong domestic market demand. The average unit value realisation of India's marine exports during 1981-82 works out to Rs. 40.80 per Kg. which is the highest on record. This was Rs. 31.07 in 1980-81 and Rs. 28.80 in 1979-80.

4.101 In Kerala most of the frozen items including frozen shrimp, frozen frog legs, frozen lobster tails, frozen squids, fresh/frozen fish and cuttle fish fillets have recorded an increase in the export front during 1981-82. Items like

cuttle fish and canned shrimp suffered a set back. As in previous years, frozen shrimp continued to dominate the marine products export trade from Kerala. In the overall exports of marine products, this item constituted 26007 tonnes valued at Rs. 108.52 crores. In terms of quantity its share was 81 per cent and in terms of value its contribution was 87 per cent. Kerala's exports of frozen shrimp constitute about 50 per cent of the total shipment of this item from India. In terms of value the figure was about 44 per cent. The average unit value realisation from shipment of frozen shrimp in 1981-82 was Rs. 47.52 per Kg., whereas it was Rs. 39.29 per Kg. in 1980-81. Japan, USA, W. Europe and Australia are the countries to which frozen shrimp is exported. It was reported that cholera germs were detected in shrimp imports into Japan from Thailand and Philippines. As India is a leading exporter of marine products to Japan, the Marine Products Export Development Authority has decided to launch a national level extension programme on immunisation and education on personal hygiene for the workers engaged in the shrimp peeling sheds and processing plants. The programme would be initially undertaken in Kozhikode district in association with the Calicut Medical College.

4.102 In 1981-82 also India maintained the status as the world's largest producer and supplier of frog legs. A total of 4065 tonnes of frog legs valued at Rs. 11.2 crores were exported during the year. Of that the contribution of Kerala was 2962 tonnes valued at Rs. 7.98 crores which is about 73 per cent in terms of quantity and about 71 per cent in terms of value. Considering the representation made by the MPEDA on the need for safeguarding the interest of frog leg exporters, Government of India had issued directions to State Departments concerned to issue licences to frog leg processors for continuing their activity.

4.103 The exports of canned shrimp from Kerala declined from 259 tonnes in 1980-81 to 76 tonnes in 1981-82. The corresponding decrease in export value during the period was from Rs. 103 lakhs to Rs. 38 lakhs. As the export prices for frozen shrimp were ruling high the raw material which normally goes for canning purposes has been increasingly diverted to frozen sector and this caused a decline in exports of canned shrimp.

#### *Inland Fisheries*

4.104 During 1981-82, the total fish production in Kerala from inland sector was 26,059 tonnes which forms only 8.7 per cent of the total fish production in the State. The inland species comprised Prawns, Etroplus, Murrels, Tilapia, Cat fish, Jaw fish and others to the tune of 5796, 2915, 2899, 4180, 2691, 1514 and 6064 tonnes respectively. The species wise composition of inland fish production and the percentage distribution to the total catches during 1980-81 and 1981-82 are given in Table 4.28

TABLE 4.28

*Species-wise Composition and Percentage Distribution of Inland Fish Production in Kerala, 1980-81 and 1981-82.*

(Quantity in Tonnes)

Species	1980-81		1981-82	
	Actual	Per cent	Actual	Per cent
(1)	(2)	(3)	(4)	(5)
1. Prawns	4724	18.51	5796	22.24
2. Etroplus	2906	11.38	2915	11.19
3. Murrels	2912	11.41	2899	11.12
4. Tilapia	4172	16.34	4180	16.04
5. Cat Fish	2685	10.52	2691	10.33
6. Jaw Fish	1520	5.95	1514	5.81
7. Others	6607	25.89	6064	23.27
Total	25526	100.00	26059	100.00

4.105 As in the previous years, prawns is the principal species of inland fish catches in 1981-82, followed by Tilapia, Etroplus, Murrels, Cat fish and Jaw fish. Construction of fish seed farms, brackish water fish/prawn culture including survey of inland and brackish water resources, patrolling in backwaters, development of small water areas, fish seed production, fish farmers development agencies, composite fish culture demonstration, reservoir fisheries, mariculture etc. were the important programmes implemented in the State during the year under review for the development of inland fisheries. The construction of Polachira and Parappanangadi fish seed farms has almost been completed. Land acquisition proceedings for Alwaye fish seed farm have been completed and the works on Pallom fish seed farm have been initiated. Steps on identification of suitable sites for the proposed fish seed farms at Idukki and Kuttiadi are underway. The survey of 2720 ha. of fresh/brackish water areas have been completed so far.

4.106 The Fish Farmer's Development Agencies at Palghat, Quilon and Trichur continued to function during 1981-82. Under the agency at Palghat, 376 farmers have been registered, 49.68 ha. of land was surveyed, about 76 thousand fingerlings were distributed and 14.36 hectare of ponds have been harvested. In Trichur 47.69 hectare of ponds have been harvested in addition to the stocking of 14.12 hectare of ponds with more than 72 thousand fingerlings. The activities of the Quilon Fish Farmers Development Agency during the year comprised registering of 67 farmers, imparting training to 57 farmers,

stocking of 35,000 fingerlings in an area of 14.13 hectare of ponds and stocking of 100,000 marine and 13,500 fresh water prawn seeds. Under composite fish culture demonstration programme, an area of 22.69 hectare of ponds have been stocked during the year with 79 thousand fingerlings.

4.107 The pilot projects for mussel and pearl culture at Vizhinjam continued to function even though there were serious problems like vagaries of nature, lack of market and use of outdated materials for culture activities. During 1981-82, at the pearl culture centre 332 pearls were produced and about 12,200 spat were collected and stocked. In the mussel culture project, transplantation of mussel seeds was continued and breeding experiments and husbandry works were also undertaken.

4.108 In the Fresh Water Biological Centre at Malampuzha, there are 66 nursery ponds, 14 rearing ponds and 12 stocking ponds spread over in a total area of 2.16 ha. This is an extension centre of composite fish culture and the fingerlings produced at the centre were distributed among farmers for rearing purpose. The centre has been debilitated by the lean monsoon in the year because induced fish breeding operations need cold atmosphere which is brought out only by rains.

4.109 As fish culture activities provide employment opportunities to farmers and induce the increase of fish production, the prospects of introducing a "Social Fisheries Project" on the lines of the social forestry scheme is under consideration of the Government. The project conceives the full utilisation of the inland water sources for breeding species of fish suitable to the area concerned. Likewise, a novel idea to establish 'Kitchen ponds' to grow high breed fish varieties on a wider scale is being planned. The scheme is to be implemented by the Community Development Department in co-operation with the Fisheries and Panchayat Departments.

#### Refrigeration Facilities

4.110 In Kerala there are 220 ice plants with an installed production capacity of 2289 tonnes per day and storage capacity of 3889 tonnes. Besides there are 91 freezing plants which could process 506 tonnes of fish per day. In addition, there are 97 cold storages with 10774 tonnes of storage capacity and 31 fresh fish storage plants with 676 tonnes of fresh fish storage capacity. Table 4.29 gives the details of refrigeration facilities in Kerala.

TABLE 4.29  
*Refrigeration Facilities in Kerala*

Item	Unit	Public	Private	Co-operative	Total
(1)	(2)	(3)	(4)	(5)	(6)
1. Ice Plants	No.	17	201	2	220
2. Ice Production Capacity	Tonnes	170	2103	16	2289
3. Ice Storage Capacity	"	705	3166	18	3889

(1)	(2)	(3)	(4)	(5)	(6)
4. Freezing Plants	No.	8	82	1	91
5. Freezing Capacity	Tonnes	52	450	4	506
6. Cold Storages	No.	9	87	1	97
7. Storage Capacity	Tonnes	1470	9244	60	10774
8. Fresh Fish Storage Plants	No.	21	10	..	31
9. Fresh Fish Storage Capacity	Tonnes	584	92	..	676

Source: Directorate of Fisheries.

### Fishermen Co-operatives

4.111 In 1980-81 there were 89 fishermen co-operative societies with a paid up share capital of Rs. 3.70 lakhs. There were 368 Malsya Ulpadaka Co-operative Societies with a total membership of about 33,400 and paid up share capital of Rs. 15.66 lakhs. The Regional Marketing Societies including Marketing Federation were 15 with a share capital of Rs. 49.53 lakhs. The total number of Fisheries Co-operative Societies were 472 with a membership of about 54,600. The paid up share capital of these societies amounts to Rs. 68.99 lakhs. Details on Fishermen Co-operatives are given in Appendix 4.13. Considering the fact that the ordinary co-operatives working in the fisheries sector are not capable of handling the fisheries development programmes properly, the concept of formation of fisheries villages was introduced. So far 226 marine fishing villages have been formed according to the provisions of the Kerala Fishermen Welfare Societies Act, 1980. A preliminary list of fisherman households has been prepared in all the villages. After hearing the objections, final lists relating to 154 villages have been published.

### Kerala Fisheries Corporation

4.112 The Kerala Fisheries Corporation has at present an ice-cum-freezing plant at Cochin, fish meal plants at Calicut and Azhikode, a nylon net factory at Ernakulam and a fleet section at Vizhagapatnam. The fleet section has four deep sea vessels. During 1981-82 all the vessels together operated for 647 days, on an average of 162 days by each vessel. The average number of days of operation by the vessels during 1980-81 was only 139. The aggregate quantity of fish and prawns landed by the vessels during 1981-82 was 99.8 tonnes. Compared to the catches of 124 tonnes of fish and prawns during the previous year, the quantity of catches during the year under review was nearly 20 per cent low. The value of catches in 1981-82 however stood at Rs. 62.09 lakhs as against Rs. 57.44 lakhs in 1980-81.

4.113 During 1981-82, the marketing division of the Corporation exported 2.94 tonnes of frozen shrimp valued at Rs. 1.47 lakhs. Compared to the export of 50.2 tonnes of frozen shrimp

valued at Rs. 21.75 lakhs in 1980-81, the achievements in export during 1981-82 was too low. The internal marketing wing of the Corporation handled about 163 tonnes of fish and prawns for Rs. 22.48 lakhs. In terms of value there was an increase of 42 per cent during the year, but in terms of quantity there was a slight decline. The activities of the nylon net factory include production and sale of nylon webbing, nylon twine, polythelene webbing, trawl net etc. During 1981-82, the production at the factory comprised 23.6 tonnes of nylon webbing, 9.5 tonnes of nylon twine, 2.8 tonnes of polythelene webbing and 135 trawl nets. The aggregate sales turnover of the factory in 1981-82 was Rs. 34.88 lakhs of which nylon webbing alone was sold for Rs. 31.54 lakhs. The products of the fish meal plants at Azhikod and Calicut include fish meal, fish oil and fish manure. In 1981-82 the total production of these items was about 150 tonnes and the sales amounted to 144 tonnes worth Rs. 2.64 lakhs.

4.114 The financial position of the Kerala Fisheries Corporation is deteriorating year after year. As an attempt to make the Corporation a viable and profitable organisation, it has been decided to close down its ice-cum-freezing plants at Calicut, Cannanore and Neendakara and the cold storage plant at Willingdon Island. The four ice plants owned and operated by the Corporation were making losses but the plant located at Cochin will be kept alive as it is necessary to carry out the internal marketing activities of the Corporation.

### Kerala Fishermen's Welfare Corporation

4.115 The programmes implemented by the Kerala Fishermen's Welfare Corporation during 1981-82 include subsidised housing scheme, financial assistance for purchase of fishing craft and gear, outboard engines, assistance for marketing of fish, rehabilitation of fishermen at Vizhinjam, provision of fishermen relief fund insurance coverage to fishermen etc. The second phase of the subsidised housing scheme for traditional fishermen involving the construction of 10,000 houses with financial assistance from HUDCO and the State Government was introduced during 1981-82. During the year under review, construction of 5700 houses was completed at a total cost of Rs. 167.50 lakhs. Besides, the spillover work of the first phase of the scheme was also taken up.

4.116 The programme of giving financial assistance for purchase of fishing craft and gear and outboard engines for motorisation of country crafts is a spillover scheme. During 1981-82, a total number of 840 beneficiaries were given financial assistance to the tune of Rs. 2.83 lakhs as subsidy for the purchase of catamarans, dugout and plank built canoes along with gear and accessories and outboard engines for motorisation of country crafts.

4.117 In 1981-82, 900 small scale fish traders were given subsidy at the rate of Rs. 100 for purchase of cycle for marketing of fish. The vanitha special bus service for women fish vendors at Trivandrum benefits about 90 women fish hawkers daily. In 1981-82, construction of 50 houses were completed at Vizhinjam for rehabilitating the fishermen families who will be evicted from the fishing harbour project area and construction works of another 115 houses have been started. The total expenditure under the scheme stood at Rs. 29.70 lakhs. Besides, an amount of Rs. 1.47 lakhs was given as scholarships to 490 fishermen students for different level of post matric courses of study. Under the programme of fishermen relief fund an amount of Rs. 3.27 lakhs was given to meet the loss due to destruction of 41 houses and loss or damage to 1625 canoes and catamarans. During 1981-82 an amount of Rs. 9.86 lakhs was given to 99 bereaved families of fishermen who died while (or immediately after) fishing. Further, an amount of Rs. 74 thousand was given to 18 victims of permanent disability caused while fishing and Rs. 46 thousand was given to fishermen who sustained temporary disability and/or injury while fishing. During the year, one diesel bunk was set up at Sakthikulangara for supplying unadulterated diesel and oil in correct measure to mechanised fishing boats. The construction works of a fish landing centre at Neendakara, by availing financial assistance from MPEDA, were started by the Corporation during 1981-82.

#### *Kerala Inland Fisheries Development Corporation*

4.118 The Kerala Inland Fisheries Development Corporation was started on February 2, 1981. The objects of the Corporation include development of inland fisheries (both fresh water and brackish water), fresh water fish culture by adopting modern methods of fishing and fish culture, maintenance of hatcheries and fish seed farms and fish farms to encourage individuals and co-operative societies and other organisations engaged in inland water fish farming by extending financial and technical assistance.

4.119 Soon after the formation of the Corporation, Government transferred the fish farms at Njarakkal and Malippuram in Vypeen Island to the Corporation. The Corporation intends to convert the farms as brackish water fish/prawn seed collection and distribution cum demonstration centres. In 1982, the receipts from the farms by way of sale of fish was

Rs. 1.05 lakhs, which was comparatively better than in 1981. The Corporation proposes to implement a scheme for reclamation and optimum utilisation of the farms with financial assistance from NABARD.

4.120 Secondly, the Corporation has taken over the Vazhani Fisheries Station from the Fisheries Department. After taking over, the Corporation has stocked the reservoir twice with a total number of 10 lakh fingerlings of quick growing varieties. Trial fishing at the reservoir shows that the scheme would be successful.

4.121 The Corporation which is in its infancy fully utilised its technical man-power in 1982 for preparing various economically viable schemes and conducting investigations in the field of inland fisheries development and as consultants in inland fish culture.

#### *Fishing Harbours and Landing Centres*

4.122 The Harbour Engineering Department is in charge of the construction and maintenance of fishing harbours and fish landing centres. The schemes undertaken by the Department during 1981-82, under fisheries sector, include development of fishing harbours and fish landing centres, fishing harbour projects at Vizhinjam and Neendakara and small boat mechanisation.

4.123 During the year, construction of a side protection including a ramp for hawling up of boats in the upstream side of the wharf at Beypore fishing harbour was completed. Besides repairs to Beypore and Baliapattam landing centres and repairs to auction hall at Beypore were also undertaken. The physical progress of the fish landing centre at Kasaragode as scheduled for 1981-82 could not be achieved due to the fact that the dredging work as contemplated could not be attained. Land acquisition proceedings for the fish landing centres at Neeleswaram and Cheruvathur have been carried out and preliminary works on the construction of the centre at Munakadavu have been started. The first stage of the construction of the Vizhinjam Fishing Harbour, one of the major fishing harbours in the country, was completed in 1980, at the cost of Rs. 1.73 crores. The second stage works are in progress. Construction of a leeward breakwater to facilitate a safe approach for fishing trawlers to the harbour is also in progress. On completion the harbour will brighten the scope for exploitation of deep sea fishery resources, which has not been attempted now on a large scale. The construction of inner breakwater at Neendakara fishing harbour has been completed and steps have been taken to build up the quay wall.

#### *Other Programmes*

4.124 The spill over schemes under mechanisation include the package schemes at Tanur and Karunagappally and the gill net scheme at

Vizhinjam. All the schemes were under different stages of implementation during 1981-82. At Tanur 25 boats have been issued to 25 fishermen groups, which will benefit 150 fishermen families. At Karunagappally 14 boats were in operation, 150 fishermen families will be benefited by the scheme. Under the gill net scheme at Vizhinjam, 10 boats issued to 10 fishermen groups were in operation and the construction of another 20 boats has been completed. Nylon twine was issued to 24 groups of fishermen for fabrication of nets. The ARDC schemes at Parappanangadi, Pudiappa and Anjengo and the Special Package scheme at Vypeen continued to function during the year under review.

4.125 The six Regional Fisheries Technical High Schools and the five Fishermen Training Centres continued to function during the year. Action for the construction of permanent buildings for the Regional Fisheries Technical High Schools at Chowghat, Tanur and Beypore has been initiated. An amount of Rs. 2 lakhs has been released to Kerala Agricultural University for carrying out applied research in inland fisheries and for the functioning of the Fisheries College.

4.126 The construction of the building for the Baliapattam ice-cum-freezing plant has been completed and major portion of the machinery has also been erected. To conduct internal marketing of fish, by establishing fish stalls in important consuming centres, an amount of Rs. 7 lakhs has been released to the Kerala Fisheries Corporation. Further, Rs. 1 lakh each was given to the City Corporations of Trivandrum and Cochin for establishing large fish markets.

4.127 The schemes to provide infrastructure facilities at Ambalapuzha and Cheruvathur continued during the year. Under the scheme of constructing link roads, 10 roads have been completed and the work in respect of another 10 roads is in progress. The civil works of the guide lights at Uppala and Manjeswar have been completed. Of the 32 fisheries dispensaries functioning in the State only 9 dispensaries have permanent buildings. Steps have been taken for the construction of permanent buildings for 19 dispensaries during the year. Sites for constructing permanent buildings for the remaining four dispensaries are yet to be located.

#### *Fishermen Population, Craft and Gear*

4.128 The All India Quinquennial Census on Marine Fishermen and infrastructure facilities was conducted by the CMFRI in 1980. In the census information was collected on the number of fishing villages, landing centres, fishermen population, active fishermen, fishing craft and gear in the maritime States of West Bengal, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Gujarat and the two Union Territories of Pondicherry and Goa.

4.129 The number of marine fishing villages in India excluding Maharashtra, Andamans and Lakshadweep is 2132, the number of landing centres being 1438. There are 3.33 lakh fishermen households with the total marine fishermen population of 18.93 lakhs. The number of mechanised boats in operation in the country is estimated to be about 14,000 of which only 9289 are owned by fishermen, others are being owned by industrialists. As regards non-mechanised fishing crafts, there are 1.35 lakh units of which about 43,400 are catamarans, 37,900 plank built boats and 21,000 dugout canoes. There are about 14,000 trawl nets and 240 purse-seines. Among other gears, drift/gill nets are of the order of 2.16 lakhs, hook and lines being the next major gear with 57,000 numbers. There are 49,000 fixed bag nets, 30,000 boat seines, 19,000 shore seines, 6000 scoop nets and 95,800 other types of gears. Details of marine fishermen population, fishing crafts and gears based on the census data are given in Table 4.30.

TABLE 4.30

*Marine Fishing Villages, Fishermen Population, Fishing Crafts and gears in Kerala and India in 1980.*

Item	Kerala	India*
(1)	(2)	(3)
1. No. of fishing Villages	304	2132
2. No. of Fish Landing Centres	222	1438
3. No. of Fishermen Households	99892	333038
4. Fishermen Population	639872	1892916
5. Actual Fishermen	131101	437899
6. No. of Fishing Crafts:		
(i) Mechanised Owned by Fishermen	983	9289
(ii) Mechanised Boats in Operation	3038	14072
(iii) Non-mechanised	26271	134741
7. No. of Fishing Gears	46795	585646

\*Excluding Maharashtra, Andaman and Lakshadweep.

4.130 In Kerala, the census was conducted in the eight coastal districts of Trivandrum, Quilon, Alleppey, Ernakulam, Trichur, Malappuram, Kozhikode and Cannanore. There are 304 marine fishing villages and 222 fish landing centres in the State. There are about one lakh fishermen households and the marine fishermen population in 1980 was about 6.4 lakhs. The average size of a fishermen family in Kerala works out to be 6.4 as against the all India figure of 5.7. About 23 per cent of total fishermen of the State are literate. Twenty per cent of the total marine fishermen were engaged in actual fishing. District-wise figures of marine fishing villages and fishermen population in Kerala in 1980 are shown in Appendix-4.15.

4.131 According to the census the number of mechanised fishing boats in operation in Kerala coast is 3038. Of that 983 mechanised fishing crafts are owned by the fishermen families. Nearly 76 per cent of these crafts are trawlers. Gill netters constitute 22 per cent. The maximum number of mechanised crafts is recorded in Quilon district (37%) followed by Ernakulam (16%), Cannanore (15%) and Kozhikode (13%). Among the 25,271 non-mechanised crafts, catamarans form 44 per cent, dugout canoes 40 per cent and plank built canoes the rest. Catamarans are found only in Trivandrum (90%) and Quilon district (10%). Plank built canoes are concentrated more in southern districts of Trivandrum, Quilon and Alleppey whereas dugout canoes are comparatively more in northern districts of Trichur, Malappuram, Kozhikode and Cannanore. The most commonly used gear in the State is drift gill net. Boat seine is the next important gear found in the State. District-wise distribution of marine fishing crafts and gears in Kerala in 1980 is given in Appendix-4.16.

4.132 The estimated fishermen population of Kerala in 1981-82 was 8.17 lakhs, which constituted about 3.15 per cent of the State's total population. The coastal districts of Trivandrum, Quilon, Alleppey and Ernakulam accounted for about 60 per cent of the total fishermen population. Fishermen population is comparatively low in Palghat and Kottayam districts. In Idukki and Wynad districts, the representation of fishermen is negligible. Of the total fishermen population, about 77 per cent belonged to marine fishery sector and the rest to the inland fishery sector. The concentration of marine fishermen is very high in Trivandrum district (1,34,300) followed by the districts of Alleppey (90,500), Kozhikode (79,200), Cannanore (76,600) and Quilon (75,500).

4.133 About 23 per cent of the total fishermen belong to inland fishery sector. In Kottayam district the entire fishermen belong to the inland fishery sector. Their representation is highest in Ernakulam district (52,900), followed by the districts of Alleppey (51,900), Quilon (28,000) and Kottayam (20,500). These four districts represent 82 per cent of the total inland fishermen in Kerala. Inland fishermen population was comparatively small in Palghat, Trivandrum and Cannanore districts. The district-wise distribution of the estimated fishermen population in Kerala during 1981-82 is given in Appendix-4.17.

#### Forests

4.134 The forests in Kerala occupy an area of about 9335 sq. km. i.e., about 24 per cent of the total area of the State. Of the total area under forests in India, Kerala's share is only 1.4 per cent. They provide shelter for birds and wild animals, supply raw materials to the industries and fuel for domestic consumption, prevent soil erosion in hilly tracts and exercise control over the ecological system. Diversion of

forest land for cultivation, roads, irrigation, power projects etc. account for considerable decline in the forest area of the State. The division-wise area of forests in Kerala as on 31-3-1981 is shown in Appendix 4.18.

4.135 Since forestry operations are labour intensive, they provide employment to a large segment of rural population. Forests contribute a significant share to the State income. The contribution of forestry sector to State income at current prices in 1980-81 was Rs. 70.34 crores as against Rs. 58.04 crores in 1979-80, the increase over the year being 21.19 per cent.

4.136 About 16 per cent of the forest area of the State is now under forest plantations. The area under forest plantations has increased from 1.43 lakh ha. in March 1981 to 1.47 lakh ha. in March 1982, the increase over the year being 2.8 per cent. The species-wise area under forest plantations is shown in Table 4.31.

TABLE 4.31  
Species-wise Area Under Forest Plantations

Species	Area in Hectares		Increase Over the Year (Ha.)
	As on 31-3-1981	As on 31-3-1982	
(1)	(2)	(3)	(4)
1. Teak	75038	76653	1615
2. Softwood	22897	23568	671
3. Cashew	4955	5085	130
4. Rosewood	145	156	11
5. Eucalyptus	31323	31885	562
6. Mahagony	247	247	..
7. Bamboo	977	984	7
8. Wattle	1001	1056	55
9. Sandalwood	9	9	..
10. Fuelwood	1859	2404	545
11. Kongu	20	20	..
12. Balsa	120	120	..
13. Cardamom	20	20	..
14. Pine	429	429	..
15. Mixed Plantations	1169	1169	..
16. Other Hardwood Species	2437	2437	..
17. Other Miscellaneous Species	574	665	91
Tota	143220	146907	3687

Source: Chief Conservator of Forests

4.137 Teak, eucalyptus and softwood are the principal species among the forest plantations. These three species altogether account for an area of about 1.32 lakh ha. Of the total area under forest plantations teak constitute the major portion (52.18%) followed by eucalyptus (21.70%) and softwood (16.04%). As planting programme was the most important development activity of the Forest Department in 1981-82, an area of 3687 ha. of land was newly planted with seedlings of different tree species. Besides, pepper, cocoa, medicinal plants etc. were also planted as inter-crop in the existing anjily and softwood plantations.

4.138 Steps have been taken by Government for improving the natural regeneration of the evergreen forests in the State. As part of social forestry, more trees have been planted on lands available outside the reserve forests to meet the firewood requirements of the villagers. The cardinal objective of social forestry is induce rural people in voluntary participation in forestry schemes and to implement vigorously afforestation as a social programme. The Forest Department has distributed free of cost more than 34 lakh seedlings of different tree species to individuals, organisations, institutions etc. for planting under the Vanamahotsava Celebrations during the year 1981-82. Moreover existing plantations were properly maintained through operations like tending, weeding, climber cutting etc. For silviculture operations in the State, the Government are very keen to discourage deforestation and to encourage afforestation. Forestry operations under the programme is aimed at meeting the requirements of small timbers, fuelwood, green manure etc. of the society as a whole. During 1981-82 fuel wood species was planted in 545 ha. Planting of avenue trees was another work attended to by the Department under this scheme.

4.139 With the technical knowhow from the Newzealand Government, the Forest Department started a Training Centre for the prevention of forest fire in the year 1979. The Centre has so far trained more than 200 forest conservators and other forest officials. Fire lines over a length of 2427 km. was cleared during 1981-82, as a preventive measure to protect the forests from wild fire.

4.140 In order to check the encroachment of forest land, permanent cairns have been erected along the boundaries of the forests. Under this programme 2085 permanent cairns were erected during 1981-82. In addition cultural operations have also been done over an area of 4730 ha. of the existing plantations during 1981-82.

4.141 As part of development of infrastructure during 1981-82, the Department has completed the construction of 36 quarters and one rest house. Work towards the formation of new roads in the forest area was also taken up.

#### *Forest Development Corporation*

4.142 The Forest Development Corporation was constituted in 1975, with the objectives of promotion of integrated development of forest plantations, raising of pulpwood plantations, development and utilisation of forest produce etc. The Corporation has certain projects for the development of pulpwood, cardamom and matchwood. The Kerala Wood Industries Limited is a subsidiary unit of the Corporation. The matchwood project since its inception in 1977 was completed planting of 887 ha. till the end of 1982. Proposals are being made for the take over of the existing matchwood plantations from the Forest Department and to expand the programme of cultivating wood species suitable for match industry.

4.143 The cardamom project is for the development of cardamom plantations of Kannil Elam in Munnar, Pachakkanam, Nelliampathy and Mankulam. In 1980-81 the Corporation has raised cardamom plantations to the extent of 209 ha. at Kannil Elam and 89 ha. in Nelliampathy. The year 1982 witnessed a considerable fall in achievement. The area under cultivation of cardamom during 1981-82 was only to the extent of 109 ha. and 60 ha. in Kannil Elam and Nelliampathy respectively. The extent of cardamom plantations in Munnar and Pachakkanam however remained unchanged during 1982.

4.144 The Corporation has launched another scheme for raising tea plantation in Wynad. The target of the Corporation was to plant 400 ha. of tea during the first phase itself. An area of 88 ha. has been planted so far. Besides, the Corporation undertook a scheme to distribute firewood to the public at reasonable prices. Hence the Corporation opened firewood depots in all districts, except Idukki, Wynad and Pathanamthitta. The Kerala Wood Industries Ltd., aims at processing of wood for veneers, joinery items etc. It proposes to establish a veneer unit at Nilambur. The Corporation has an engineering wing which supervises the civil works of the Wood Industries Complex at Nilambur. This wing undertook the construction of the labour lines and a cardamom curing factory at Kannil Elam.

#### *Forest Research Institute*

4.145 The Kerala Forest Research Institute, Peechi, undertakes studies on timber and timber based industries, by availing financial assistance from the State Government and other organisations like F. A. O. Two sub-centres of the Institute for doing research on teak plantation and wild life are functioning at Nilambur and Thekkady respectively. The seven divisions viz. Ecology, Entomology, Genetics, Plant Pathology, Plant Taxonomy, Soil Science and Wild Life collectively perform the entire work of the Institute. The implementation of an effective device to control damages caused by termites in eucalyptus plantations is a major contribution of the Institute.

### Community Development

4.146 Community development programmes are implemented in the State through 151 Blocks. The major programmes implemented through the Community Development Blocks are, community development pattern schemes, women and children's programmes, National Rural Employment Programme (NREP) and Integrated Rural Development Programme (IRDP).

4.147 Under Community Development pattern schemes, programmes are implemented for the development sectors of agriculture, animal husbandry, minor irrigation, industries, roads etc. in rural areas.

4.148 Under women and children's programme, 'the Applied Nutrition Programme' (ANP) is the major activity. Out of the 151 Blocks in the State, 105 are ANP Blocks. Another important activity under women and children's programme is Composite Programme for Women and Pre-school Children (CPWP). The CPWP is centralised around a village balwadi and sponsored and operated by the local Mahila Samajams. Financial assistance is given to the Mahila Samajams for construction of permanent buildings for their balwadies. During 1981-82, 2361 balwadies have been started. In addition to the CPWP centres about 3553 feeding centres were functioning under ANP and CARE feeding programme. Under one meal-a-day programme 3872 feeding centres in the rural areas were run by the Blocks. About 6 lakh pre-school children and mothers are benefited under these feeding programmes.

### National Rural Employment Programme (NREP)

4.149 National Rural Employment Programme was started converting the food for work programme, by the Government of India, since October 1980 with the following objectives: (i) generation of additional gainful employment for the unemployed and under-employed persons in rural areas; (ii) creation of durable community assets for strengthening the rural infrastructure which will lead to rapid growth of rural economy

and steady rise in the income levels of the rural people; and (iii) improvement of nutritional status and the living standards of the rural people.

4.150 The expenditure on NREP is shared between Centre and State on a 50:50 basis. Between wage and material components, the expenditure for the works under NREP is in the ratio 60:40. The wage rate for unskilled labourers was Rs. 10 per manday and the wage rates for women and adolescent workers were Rs. 8 and Rs. 7.50 respectively. The total expenditure for NREP during 1981-82 was Rs. 1708.51 lakhs. Employment to the tune of 128 lakh mandays has been generated out of which scheduled caste scheduled tribe workers accounted for 35 lakh mandays. Of the total expenditure 23 per cent was used for the benefit of SC/ST. For social forestry an amount of Rs. 106.87 lakhs was utilised.

4.151 During the year 1981-82, 5833 km. of rural roads were formed under NREP and 2631 km. improved along with 83 culverts. About 8 km. of field channels and 91 village tanks were also constructed. Works relating to 19 school buildings and buildings for 7 mahila samajams, 11 balwadies and 2 dispensaries were also completed. Also 275 group houses for SC ST beneficiaries were created under NREP during 1981-82.

### Integrated Rural Development Programme (IRDP)

4.152 The Integrated Rural Development Programme is implemented through Community Development Blocks. The programme envisages the careful selection of families among small and marginal farmers, village artisans etc. to take up gainful employment in order to improve their socio economic conditions. Now the IRD Programme has been extended to all the Blocks in the State. The amount of subsidy fixed per Block for 1981-82 was at the rate of Rs. 6 lakhs. The year-wise coverage of IRDP during 1978-79, 1979-80, 1980-81 and 1981-82 is given in Table 4.32.

TABLE 4.32

Year-wise Coverage of IRDP during 1978-79, 1979-80, 1980-81 and 1981-82

Year	Total No. of Blocks	No. of Blocks covered	Total Amount Spent (Rs. in lakhs)			No. of families benefited	% of SC/ST families	Average Amount utilised per Family (Rs.)
			Loan	Subsidy	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978-79	144	58	349.89	161.56	32146	5320	16.5	1591
1979-80	144	63	1500.67	392.00	74552	11048	14.81	2537
1980-81	144	144	1414.87	475.20	58992	10317	17.48	3203
1981-82	151	151	2274.47	610.67	96832	18594	19.18	2909



4.153 Detailed household survey has already been conducted in all the Blocks and beneficiary families from lower income strata have been identified. During 1981-82, 96,832 families were given assistance of which 18,594 were scheduled caste/scheduled tribe families.

#### *Training of Rural Youth for Self Employment (TRYSEM)*

4.154 This programme is implemented to train the rural youth in various trades and skills so as to enable them take up self-employment by availing assistance under IRDP. The benefit of this programme goes to the youth of the identified families living below the poverty line. During 1981-82, 3237 persons were trained and an amount of Rs. 32.37 lakhs was spent under this scheme. Now the programme has been decentralised and the District Rural Development Agencies have been made responsible for its implementation. About 13,000 persons are expected to be trained during 1982-83 under this scheme.

#### *Rural Functional Literacy Programme (RFLP)*

4.155 This programme aims at reaching literacy for economic development of the illiterates. This scheme is having 100 per cent central assistance and is implemented in two Blocks each in the districts of Trivandrum, Alleppey, Palghat, Trichur and Cannanore. In each Block, a total of 1500 centres are operated for a period of 10 months in a year. The learners are supplied with learning materials and the Instructors are given a monthly allowance of Rs. 50. About 50 posts of supervisors at the rate of 5 supervisors per Block have also been created. Nearly 1430 centres were conducted during 1981-82 and 33071 persons were made literate. Out of them 19888 persons were women.

#### *Social Inputs in Area Development*

4.156 This scheme is a joint venture of Government of India and UNICEF with 75 per cent UNICEF assistance, implemented in 27 coastal Blocks in the districts of Trivandrum, Alleppey, Ernakulam, Malappuram and Kozhikode. Additional provision for social inputs was made in these selected areas especially for the benefit of women and children and the weaker sections.

#### *Extension Training Centres*

4.157 The State Development Department has three training centres at Kottarakkara, Mannuthy and Taliparamba imparting training to village level workers and senior officers. The Mannuthy Training Centre was started as a refresher training centre but has now been converted into a regular job training centre for village level workers and for the conduct of other courses in ANP, youth activities etc.

#### *Gramabhoomi*

4.158 The monthly journal of the Development Department, 'Gramabhoomi' has a circulation of over 15000 copies. This journal highlights the various activities of rural development and gives guidance to rural people engaged in agriculture and other vocations. A Rural Information Bureau has recently been set up in the Development Department and the publication of "Gramabhoomi" has been made the responsibility of the Bureau.

#### *Agricultural Credit*

4.159 The co-operative credit system in the State registered considerable progress in extending credit support for farming operations. The total number of societies functioning during the year 1980-81 was 1575 with 37.79 lakh members. The loans advanced by credit co-operatives has been increasing progressively from year to year. The total amount of loans advanced by the co-operate credit societies during 1980-81 was Rs. 209.66 crores. Short term loans issued during the year under review was Rs. 168.40 crores. Under short term loans Rs. 92.17 crores was issued for agricultural purposes in 1980-81. A sum of Rs. 5.20 crores was advanced to scheduled castes/scheduled tribes by agricultural credit societies. The amount advanced under medium term loan increased from Rs. 36.45 crores in 1979-80 to Rs. 38.51 crores in 1980-81. The long term loans advanced during 1980-81 through primary agricultural credit societies was Rs. 2.75 crores. The total amount of loans advanced for agricultural purpose alone was Rs. 120.56 crores ie. 57.50 per cent of the total amount of loans advanced during the year. Seventy per cent of the loans issued by the co-operatives in 1980-81 benefited the weaker sections.

4.160 There were 1575 primary agricultural credit societies in Kerala as on 30-6-1981. Out of 1575 primary agricultural credit societies on 30-6-1981, only 26 societies were categorised as weak, while, 894 societies were running on profit. The selected indicators of the performance of these societies are shown in Table 4.33. The average deposit for primary agricultural credit societies has gone up from Rs. 5.62 lakhs on 30-6-1979 to Rs. 9.12 lakhs on 30-6-1981. The average loans advanced per member went up from Rs. 473 during 1979-80 to Rs. 555 on 1980-81. The average loan advanced per advancing society as on 30-6-1981 was Rs. 15.26 lakhs while the average loan amount per borrowing member was Rs. 1404. The percentage of borrowing members to total members showed a slight decrease during 1980-81. The total deposit mobilised increased from Rs. 113.85 crores in 1979-80 to Rs. 143.59 in 1980-81, the increase being 26.12 per cent. The average deposit per member was Rs. 380 and the average deposit per society was Rs. 9.12 lakhs.

4.161 The net profit earned by the societies during 1980-81 was Rs. 388 lakhs as against Rs. 413 lakhs during the previous year, the decrease being 6.05 per cent. The number of societies which worked on profit decreased from 948 to 894 during the year. The number of weak societies also decreased.

4.162 In the marketing of agricultural produce the co-operative marketing sector has an important role to play. There are two Co-operative Marketing Federations in the State (Kerala State Co-operative Marketing Federation and the Kerala Co-operative Rubber Marketing Federation). In 1981-82, the Kerala Co-operative Rubber Marketing Federation marketed 8.34 million tonnes of rubber valued at Rs. 12.23 crores. The total value of agricultural produce handled by co-operatives in 1980-81 was Rs. 91.93 crores. The retail sales of fertilizers by co-operatives went up from Rs. 21.33 crores

in 1979-80 to Rs. 24.03 crores in 1980-81. The retail sales of consumer articles by co-operatives improved from Rs. 67.29 crores in 1978-79 to Rs. 109.19 crores in 1980-81, the increase being 62.27 per cent. In 1980-81, under the co-operative housing scheme, the Kerala Co-operative Housing Federation has advanced Rs. 6.8 crores through primary co-operative housing societies for construction of houses. Financial assistance was given for the construction of 88 new rural godowns and 5 marketing godowns.

TABLE 4.33  
Selected Indicators of the Credit Operations of the  
Agricultural Credit Societies

Details	As on 30-6-1980	As on 30-6-1981
(1)	(2)	(3)
1. Numbr of Societies	1581	1575
2. Number of Members (lakhs)	35.74	37.79
3. Paid up Share Capital (Rs. in lakhs)	2594	3106
4. Statutory Reserves (Rs. in lakhs)	298	344
5. Other Reserves (Rs. in lakhs)	1089	1183
6. Deposits (Rs. in lakhs)	11385	14359
7. Other Borrowings (Rs. in lakhs)	8402	10607
8. Working Capital (Rs. in lakhs)	30659	38431
9. Loans Advanced During the Year	16918	20966
(a) Short term Loans (Rs. in lakhs)	12953	16840
(b) Medium Term Loans (Rs. in lakhs)	3645	3851
(c) Long Term Loans (Rs. in lakhs) PACS	320	275
(d) Long Term Loans (Rs. in lakhs) PLMBS	1800	2273
(e) For Agrl. Purposes Alone	10634	12056
10. Loans Outstanding at the end of the Year (Rs. in lakhs)	17137	21982
11. Loans Overdue	3359	4569
12. Number of Societies that Worked at Profit (Nos.)	948	894
13. Net Profit for the Year (Rs. in lakhs)	413	388
14. Number of Societies that Worked at Loss (Nos.)	590	655
15. Loss Sustained (Rs. in lakhs)	432	450
16. Number of Societies Without Profit/Loss (Nos.)	43	26
17. Number of Borrowing Members	1500	1493

Source: Registrar of Co-operative Societies.

TABLE 4.34  
Selected Indicators of the Performance of Agricultural Credit  
Societies

Indicators	As on 30-6-1980	As on 30-6-1981
(1)	(2)	(3)
1. Average Membership per Society (Nos.)	2261	2399
2. Average Share Capital per Society (Rs.)	164000	197000
3. Average Deposit per Society (Rs.)	720000	912000
4. Average Deposit per Member (Rs.)	319	380
5. Average Working Capital per Society (Rs.)	1939216	2440063
6. Average Loan per Member (Rs.)	473	555
7. Percentage of Borrowing Members to Total Members	42	40
8. Average Loan Advanced per Advancing Society (Rs.)	1243033	1525892
9. Average Loan Advanced per Borrowing Member (Rs.)	1129	1404
10. Percentage of Overdue to Outstanding P.A.C.S. Level (S.T. and M.T.)	19.60%	20.79%
11. Percentage of Over due to Outstanding PLMBS Level	25.69%	20.42%

Source: Registrar of Cooperative Societies.

### The Kerala State Co-operative Bank

4.163 The year 1980-81 was a good year for the Bank as it could record satisfactory progress during the year. The financial position of the Bank as on 30-6-1980 and 30-6-1981 are given in Table 4.35. The figure as on 30-6-1982 are not readily available.

TABLE 4.35

Amount (Rs. lakhs)

Particulars	30-6-1980	30-6-1981
(1)	(2)	(3)
1. Share Capital	300.49	359.25
2. Reserves	352.72	390.81
3. Deposits	3986.41	4836.48
4. Borrowings	1698.87	2367.28
5. Working Capital	6303.00	7939.84
6. Loans and Advances Outstanding	4512.60	6011.51
7. Investments	1133.80	1418.81
8. Net Profit	14.59	43.56

4.164 While the Government share capital amount of Rs. 38 lakhs remained unchanged, there was an increase of Rs. 58.80 lakhs i.e. 19.6 per cent in the paid up share capital, 21.3 per cent in deposit, 10.8 per cent in reserves in the Bank during the year ending 1981 as compared to 1980. The net profit accrued to the Bank during the year 1981 was Rs. 43.56 lakhs as against Rs. 14.59 lakhs in 1980 registering 198 per cent increase during the year 1981. The owned fund of the Bank registered an increase of Rs. 96.88 lakhs during the year 1981. The deposits with the Bank amounted to Rs. 4836.48 lakhs comprised of fixed deposits of Rs. 3575.36 lakhs, savings bank deposits of Rs. 135.95 lakhs, current deposits of Rs. 410.87 lakhs and money at call and short notice deposits Rs. 714.80 lakhs.

4.165 The advance of the Bank showed an increase by Rs. 1498.91 lakhs during the year 1980-81 as against an increase of Rs. 1098.24 lakhs recorded during the previous year. The rate of increase in advance for the year 1981 was 33.2 per cent. Under the I.R.D. Programme the Bank sanctioned a credit limit of Rs. 52.65 lakhs to Trichur District Co-operative Bank against the limit for a like sum sanctioned by A.R.D.C. to finance identified persons.

4.166 In addition to various loans and advances for agricultural and non-agricultural purposes, the Bank had also undertaken several development projects like (a) financing of primary weaver's societies, (b) financing State handloom weaver's societies, (c) financing coir societies, (d) financing of Kerala State Co-operative Coir Marketing Federation, (e) financing of various industrial co-operative units, (f) financing of Kerala State Co-operative Rubber Marketing Federation, (g) Kerala Co-operative Consumer's Federation, (h) financing of working capital requirement of Central Aracanut Marketing and Processing Co-operative Ltd.,

Manglore (CAMPCO) and (i) financing of scheme under Kerala Agricultural Development Project (KADP) and ARDC Schemes etc.

#### Long term Credit

4.167 The Kerala Co-operative Central Land Mortgage Bank Limited is the apex institution responsible for the disbursement of long term credit for the development of agriculture in the State. At present, there are 31 Primary Land Mortgage Banks affiliated to the Central Bank. It has 8 regional offices at Trivandrum, Quilon, Kottayam, Alleppey, Ernakulam, Perinthalmanna, Calicut and Cannanore.

4.168 During the financial year 1981-82, the Primary Banks advanced Rs. 1089.33 lakhs under normal lending and Rs. 1027.86 lakhs under special schemes to borrowers, the total being Rs. 2117.19 lakhs. Besides, the Central Bank advanced Rs. 64.07 lakhs to the Kerala State Electricity Board for energisation of pump sets. During 1981-82 the target of the Bank was Rs. 22 crores and the bank had achieved the target in respect of scheme lending.

4.169 The Bank charges differential rates of interest for loans advanced for different purposes and different categories of borrowers. The rate of interest charged for loans issued for minor irrigation/land development and to small farmers for diversified purposes is 10.25 per cent. On other advances for diversified purposes, the rate charged is 12.50 per cent.

4.170 At the end of the co-operative year 1981-82, all the Primary Land Mortgage Banks except two were eligible for unrestricted lending. These Banks were able to bring down the overdue to below 25 per cent. The percentage of overdues at the Central Land Mortgage Bank level for loans against primaries was 5.9 per cent.

4.171 The purpose-wise classification of the loans issued under ordinary loaning programme during 1981-82 is given in Table 4.36. From the total loan amount of Rs. 1089.33 lakhs, the major share has been issued for levelling and bunding i.e., 27.95 per cent during 1981-82 as against 28.70 per cent during 1980-81.

4.172 The development programmes covered by the Bank's lending activities include minor irrigation, land reclamation and soil conservation, cultivation of plantation/horticultural crops and other diversified activities like dairying, fisheries, integrated soil conservation etc. The Central Land Mortgage Bank is one of the financing agencies to implement the World Bank assisted Special Agricultural Development Unit Programme of the Kerala Agricultural Development Project. The Bank also undertakes lending activities in 122 units with a financial outlay of Rs. 29.03 crores.

TABLE 4.36  
*Ordinary Lending Programmes of the Kerala Co-operative  
 Central Land Mortgage Bank*

(Rs. in lakhs)

Purpose	1980-81	1981-82
(1)	(2)	(3)
1. New Wells	178.92	144.75
2. New Tanks	51.52	40.59
3. Pumpsets and Persian Wheels	43.75	29.44
4. Agricultural Machinery	50.64	19.74
5. Repairs to Tanks } 6. Repairs to Wells }	38.19	30.38
7. Field Channels and Pumphouse	11.55	5.26
8. Cattle Sheds and Farm houses	217.74	190.69
9. Fencing	139.40	76.80
10. Levelling and Bunding	413.60	304.43
11. Terracing	44.20	34.63
12. Drainage Channels	4.05	3.26
13. Plantations	157.80	114.81
14. Other Major Programmes	89.63	94.55
Total	1440.99	1089.33

CHAPTER 5

IRRIGATION AND POWER

*Irrigation*

Irrigation plays a vital role in achieving the objective of increasing agricultural production mainly through multiple cropping in the same area and raising the yield. The irrigation potential of the State is assessed at 16 lakhs ha. (net) or 25 lakh ha. (gross). Till the end of March 1982 the total area brought under irrigation is 4.66 lakh ha. (gross) which is only 18.64 per cent of the total estimated irrigation potential of the State.

*Major and Medium Irrigation Projects*

5.2 The total extent of land that can be brought under irrigation in Kerala through major and medium irrigation projects is estimated as 6 lakh ha. (net) or 14 lakh ha. (gross). The ten completed projects viz. Chalakudy, Peechi, Malampuzha, Neyyar, Pothundy, Gayathri, Walayar, Vazhani, Mangalam and Cheerakuzhi have an ayacut area of 1.34 lakh ha. These projects are irrigating a gross area of 1.47 lakh ha. By June 1982, Periyar Valley, Chitturpuzha, and Moolathara, Kanhirapuzha, Kuttiadi and Pazhassi have added through partial commissioning, another 1.78 lakh ha. (gross) to the irrigated area in the State. Thus the total gross

irrigated area build up till June 1982 through major and medium irrigation projects is 3.25 lakh ha. (gross).

5.3 During the year 1981-82 alone 9693 ha. (gross) have been added to the irrigated area by the partial commissioning of some of the on-going projects viz. Kallada (1245 ha.), Pamba (2340 ha.), Periyar Valley (887 ha.), Chitturpuzha (186 ha.), Kanhirapuzha (995 ha.), Kuttiadi (1790 ha.) and Pazhassi (2250 ha.). An amount of Rs. 43.44 crores has been spent in 1981-82 as against the plan outlay of Rs. 45 crores for the year. Out of the total expenditure an amount of Rs. 42.70 crores has been spent on on-going projects, Rs. 0.31 crore on research survey and investigation, and Rs. 0.43 crore for modernisation of old projects.

5.4 In the current year 1982-83 till the end of November 1982 an amount of Rs. 29.40 crores was spent on major and medium projects against a plan outlay of Rs. 51.49 crores. Out of this total expenditure during 1982-83, an amount of Rs. 28.79 crores was spent for on-going projects Rs. 0.22 crore on research and investigation and Rs 0.39 crore on modernisation of old projects.

5.5 The details of physical and financial achievements of the major and medium irrigation sector are given in Table 5.1

TABLE 5.1

*Major and Medium Irrigation Projects—Achievement during 1981-82*

Project	Command area (in hectares)		Physical Achievement during 1981-82 (in hectares)		Cumulative Total at the end of 1981-82 (in hectares)		Expdr. during 1981-82 (Rs. lakhs)	Anticipated during 1982-83		Achievement during 1982-83
	Net	Gross	Net	Gross	Net	Gross		Financial	Physical	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>A. Completed Projects</b>										
1. Chalakudy	26680	39380	..	..	13884	27258	..	..	..	..
2. Peechi	25500	23168	..	..	17256	23918	..	..	..	..
3. Malampuzha	29463	42090	..	..	19748	40208	..	..	..	..
4. Neyyar	16042	17952	..	..	8198	15966	..	..	..	..
5. Pothundy	8792	10930	..	..	5098	10046	..	..	..	..
6. Gayathri	7651	10930	..	..	4868	10114	..	..	..	..
7. Walayar	4536	6470	..	..	3685	6506	..	..	..	..
8. Vazhani	7668	7130	..	..	2190	4226	..	..	..	..
9. Mangalam	4816	6880	..	..	3305	6608	..	..	..	..
10. Cheerakuzhy	2268	2828	..	..	927	1746	..	..	..	..
Total—A	193416	167758	..	..	79159	146596	..	..	..	..

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>B. On Going Projects</b>											
1. Kallada	83087	92000	890	1245	890	1245	1433.270	2699	5000	7500	
2. Pamba	17806	41683	1000	2340	15935	37288	417.549	400	2991	7000	
3. Muvattupuzha	20880	52200	..	..	..	..	298.530	260	..	..	
4. Periyar Valley	36500	85600	341	887	25567	66474	355.981	220	1827	4750	
5. Chimoni	13000	26200	..	..	..	..	159.151	120	..	..	
6. Chitturpuzha & Moolathara	17287	32550	100	186	13413	24948	85.269	50	107	200	
7. Kanhirapuzha	9713	21863	442	995	3598	8096	354.773	320	1600	3600	
8. Kuttiadi	25495	31161	746	1790	12552	30125	329.108	110	2875	6900	
9. Pazhassi	22255	32374	1125	2250	4833	9666	533.666	410	2700	5400	
10. Vamanapuram	9600	24250	..	..	..	..	13.192	20	..	..	
11. Idamalayar	13659	39318	..	..	..	..	91.497	350	..	..	
12. Kuriarkutty-Karappara	..	23472	..	..	..	..	41.275	20	..	..	
13. Beyporepuzha	..	13624	..	..	..	..	7.471	12	..	..	
14. Kakkadavu	16700	26106	..	..	..	..	37.581	20	..	..	
15. Attappady	5187	8047	..	..	..	..	40.751	50	..	..	
16. Karapuzha	5580	9300	..	..	..	..	67.857	50	..	..	
17. Meenachil	..	22000	..	..	..	..	3.553	12	..	..	
18. Banasurasagar	..	4800	..	..	..	..	0.197	6	..	..	
<b>Total B</b>	<b>296749</b>	<b>586548</b>	<b>4584</b>	<b>9693</b>	<b>76728</b>	<b>177842</b>	<b>4270.671</b>	<b>5069</b>	<b>17100</b>	<b>35330</b>	
<b>C. Research and Investigation</b>	..	..	..	..	..	..	30.742	40	..	..	
<b>D. Modernisation</b>	..	..	..	..	..	..	42.684	40	..	..	
<b>Total D</b>	..	..	..	..	..	..	..	..	..	..	
<b>Total A+B+C+D</b>	<b>430165</b>	<b>754306</b>	<b>4584</b>	<b>9693</b>	<b>155887</b>	<b>324438</b>	<b>4344.097</b>	<b>5149</b>	<b>17100</b>	<b>35330</b>	

5.6 A brief write up of the various stages of the irrigation projects in the State during the Year 1982 is furnished below:

### I. Major Irrigation Projects

#### A. On going Projects

##### 1. Kallada Irrigation Scheme

5.7 Kallada irrigation scheme is the largest multipurpose project conceived in the State. The latest assessed cost of the scheme is Rs. 16357 lakhs and will benefit an area of 61600 ha. (net) or 92000 ha. (gross) in Quilon District and in parts of Alleppy and Trivandrum Districts. The Scheme comprises a masonry dam 335 metres across Kallada river in Quilon District to form a reservoir, a pick up weir at Ottakal 4.6 km. down stream from

this dam 118 metre long and 9 m 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 lands and dry lands are to be irrigated by this project. The World Bank has agreed to finance Stage I of the project and necessary agreement in this regard has been executed. The investment so far for the project is Rs. 64.48 crores and benefit achieved is 1245 ha. (gross).

##### 2. Pamba Irrigation Scheme

5.8 The scheme comprises a barrage at Maniyar across Kakkad river having a length of 115.5 metres and a height of 16.76 m and a net work of canals taking off from the barrage. The revenue

estimated cost of the scheme is Rs. 32.97 crores with a planned ayacut of 48430 ha. (gross). The investment on this scheme upto 31-3-1982 is Rs. 35.45 crores and achievement upto 30-6-1982 is 37200 ha (gross).

### 3. Muvattupuzha Irrigation Scheme

5.9 This scheme 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 water distribution system. The scheme is estimated to cost Rs. 48.08 crores and has a planned ayacut of 3000 ha. (gross). The investment upto 31-3-1982 for this project is Rs. 11.40 crores

### 4. Periyar Valley Irrigation Scheme

5.10 This scheme comprises construction of a barrage at Bhoothathankettu across Periyar river and a system of canals and distributaries. The scheme is estimated to cost Rs. 39.71 crores with a planned ayacut area of 85600 ha (gross). The achievement upto 30-6-1982 is 66500 ha. (gross) with an investment of Rs. 34.42 crores.

### 5. Chimoni Irrigation Scheme

5.11 This scheme envisages supply of water to 26200 ha. (gross) of kole lands and its peripheral lands in Trichur District at an estimated cost of Rs. 19.83 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. The investment upto 31-3-1982 is Rs. 5.27 crores.

### 6. Chitturpuzha—Moolathara Irrigation Scheme

5.12 This scheme envisages remodelling of the existing irrigation system in Chitturpuzha for irrigation of wet lands in Chittur Taluk of Palghat District. The proposal comprises replacing the Moolathara ayacut by a regulator, construction of Thembramadaku weir and remodelling and extension of two canal systems. The latest estimated cost of the scheme is Rs. 15.50 crores, and the project has an ultimate irrigation potential of 26,970 ha. (gross).

### 7. Kanjirappuzha Irrigation Scheme

5.13 The scheme is to construct an earthen dam with a central masonry spillway across Kanjirappuzha to provide irrigation facilities for an area of 21,900 ha. (gross) in the taluks of Mannarghat, Ottapalam and Palghat at an estimated cost of Rs. 36 crores. The investment upto 30-6-1982 is Rs. 25.36 crores.

### 8. Kuttiadi Irrigation Scheme

5.14 The scheme envisages the construction of a masonry dam across Kuttiadi river at Paravannamuzhi, 13 earth saddle dams for a total length of 1844 metre and a canal system. This scheme is estimated to cost Rs. 44.85 crores with an ultimate ayacut of 37,000 ha. (gross) of paddy

land in Kozhikode, Badagara and Quilandy taluks. The achievement upto 30-6-1982 is 30,140 ha. (gross) with an investment of Rs. 40.78 crores.

### 9. Pazhassi Irrigation Scheme

5.15 This scheme is a diversion scheme across Valapattanam river in Cannanore District. The barrage is situated in Kulur. The canal system is mainly in the left bank comprising 55 km. of main canal and 135 km. of branches. The latest estimated cost of the scheme is Rs. 42 crores. The ultimate irrigation potential planned is 32,374 ha. (gross). The ayacut achieved till June 1982 is 9,700 ha. (gross) with an investment of Rs. 36.76 crores.

## B. New Schemes

### 10. Idamalyar Irrigation Scheme

5.16 This scheme envisages the utilisation of tail race waters of Idamalyar Hydro-electric Project by diverting the water through the barrage of Periyar Valley Irrigation Scheme at Planchoode into a new canal at the right bank of Periyar. The scheme would irrigate 52,400 ha. (gross) with an estimated cost of Rs. 41 crores. The investment upto 31-3-1982 is Rs. 7.03 crores.

### 11. Kuriarkutty—Karappara Irrigation Scheme

5.17 This scheme envisages the utilisation of tail race water of Kuriarkutty-Karappara Hydro-electric Scheme. The estimated cost of the scheme is Rs. 26.85 crores with a plan to provide irrigation facilities to 11,740 ha. (gross).

### 12. Beyporepuzha Irrigation Scheme

5.18 The programme is to construct a barrage across Beyporepuzha at Azhiyakode and to direct the flow to irrigate an area of 11,629 ha. (gross) in Kozhikode and Malappuram District. The estimated cost of the Scheme is Rs. 10.61 crores.

### 13. Kakkadvau Irrigation Scheme

5.19 This scheme consists of a reservoir at Kakkadvau across Karingotta river to irrigate an area of 41,760 ha. (gross) in Cannanore District. The estimated cost of this scheme is Rs. 26 crores.

## II. Medium Schemes

### A. Ongoing Schemes

### 14. Attappady Irrigation Scheme

5.20 This scheme consists of a masonry dam at Chittar across Siruvani river in Attappady and a canal system to irrigate 8,050 ha. (gross) in the Tribal area of Attappady in Palghat District. The investment upto 31-3-1982 is Rs. 3.90 crores.

### 15. Karapuzha Irrigation Scheme

5.21 The scheme envisages the construction of a masonry dam across Karapuzha at Vazhavatta with earth flanking dams on either side main

canals and net work of distributaries. The ultimate irrigation potential that can be developed by this project is 9,300 ha. (gross) in South Wynad taluk of Kozhikode District. The estimated cost is Rs. 12 crores. An amount of Rs. 4.49 crores is spent till 31-3-1982 for this scheme.

#### B. New Schemes

##### 16. Vamanapuram Irrigation Scheme

5.22 The first stage of the scheme envisages the construction of a dam at Vaiyanki across Kallar the tributary of Vamanapuram river and a net work of canal system to irrigate an area of 24,250 ha. (gross) in Trivandrum District at an estimated cost of Rs. 37.12 crores. The detailed investigation is over and the project report is already cleared by C. W. C.

##### 17. Meenachil Irrigation Scheme

5.23 The scheme envisages the construction of a reservoir in the basin at Cherripad and an irrigation potential of 10,000 ha. (gross) can be developed by this project at an estimated cost of Rs. 35 crores.

##### 18. Banasurasagar Irrigation Scheme

5.24 The scheme is to construct a dam across Karamanathodu a tributary of Panamaram river which is a major tributary of Kabini river. The scheme will irrigate an area of about 4,800 ha. (gross) in Wynad at an estimated cost of Rs. 11.37 crores.

#### Minor Irrigation

5.25 Minor irrigation schemes assume special importance in the development of irrigation in the State. Since minor irrigation structures are quick yielding and require only low capital investment, greater emphasis has been laid in the Plan for the development of minor irrigation schemes. Minor irrigation schemes include diversion weirs across

streams and regulators, tanks and wells, irrigation and lift irrigation schemes. The estimated potential of minor irrigation in the state is 10 lakh ha. (net) or 11 lakh ha. (gross). Till the end of March 1982 a cumulative area of 1,38,298 ha. (net) or 1,61,410 ha. (gross) has been brought under irrigation through minor irrigation schemes at a total cost of Rs. 50.45 crores.

5.26 The achievement during 1981-82 is 7060 ha. (net) or 8,406 ha. (gross) of additional area under irrigation, with an expenditure of Rs. 545 lakhs. During this period 12 M. I. Class I Works, 3 M. I. Class II (PWD), 22 Lift Irrigation Works and 91 I. P. D. Yela Works were completed.

5.27 During the current year (1982-83) 154 M. I. Class I Works, 112 M. I. Class II Works (PWD), 145 Lift Irrigation Works and 509 I. P. D. Yela Works are taken up for execution with a proposed physical target of 6,788 ha. (net) or 8,428 ha. (gross) of additional area with a budget provision of Rs. 565 lakhs. It is expected that Rs. 765 lakhs will be spent during 1982-83 to achieve the revised physical target of 9,325 ha. (net) or 11,555 ha. (gross) of additional area under minor irrigation. Thus by the end of the third year of the Sixth Plan, Rs. 1736 lakhs is expected to be spent to achieve an additional area of 25,679 ha. (net) or 30,849 ha. (gross) under minor irrigation.

5.28 During the current year, 43 M. I. Class I Works and 52 lift irrigation works are targeted for completion. In addition to this 50 per cent of the M. I. Class II (PWD) and I. P. D. Works are also targeted for completion. The financial and physical achievements under minor irrigation programme as at the end of December, 1982 indicate that the targets for the year will be achieved fully. The physical achievement by end of December, 1982 excluding that achieved through schemes executed by District Collectors is 5,150 ha. (Net).

5.29 The details of physical and financial achievements during 1981-82 are given in Table 5.2.

TABLE 5.2  
Physical Achievement in Minor Irrigation

Type of Minor Irrigation	Achievement in hectares during 1981-82		Total at the end of 1981-82		Anticipated achievement during 1982-83		
	Net	Gross	Net	Gross	Financial (Rs. lakhs)	Net	Physical (Ha.) Gross
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Minor Irrigation Class I	1015	1523	18540	27961	165.00	1807	2622
2. Do. Class II (P.W.D.)	75	75	70713	70713	60.00	680	680
3. Do. Class II with People's participation	2471	2471	5051	5051	50.00	588	588
4. Lift Irrigation	1676	2514	27380	41071	165.00	1813	2638
5. I.P.D. Yelah	1337	1337	14185	14185	90.00	1200	1200
6. Repairs to Damages Caused to M. I. Structures	486	486	2429	2429	24.00	700	700
7. Construction and Deepening Wells and Tanks	Nil	Nil	Nil	Nil	1.00	Nil	Nil
8. Irrigation Facilities to Drought Prone Areas	..	..	..	..	10.00	..	..
9. Investigation	..	..	..	..	..	..	..
Total	7060	8406	138298	161410	565.00	6788	8428



### Flood Control and Anti-sea Erosion

5.30 During the rainy seasons heavy floods occur causing substantial damage to crops grown on either side of the rivers and to structures including a large number of dwelling units bordering the rivers. The damages caused by floods to agricultural lands, public property, roads, canals etc., are very significant. Flood control measures for the flood prone areas could not be taken up in the state as part of a comprehensive plan during the previous plan periods due to lack of funds. The Sixth Plan outlay for flood control is Rs. 1000 lakhs to protect an area of 8,458 ha. The Sixth Plan Programme is based on a short range plan to meet the immediate requirements.

5.31 During the first year (1980-81) of the Sixth Plan Rs. 109 lakh was spent to protect an area 1,115 ha. During the year 1981-82, Rs. 96 lakh was spent to protect an area of 1,210 ha. The programme of work during the year include completion of as many spill over works as possible, taking up of the work of widening and deepening the leading channel of Thottappally Spillway,

purchase of dredgers, providing better drainage facilities to low lying areas in Cochin and Calicut cities etc.

5.32 A large part of the coast line of Kerala is subjected to severe erosion during monsoons, which result in damages to paddy lands, dwelling units and pollution of inland and fresh water lakes. Nearly 320 km. out of 560 km. of coast line in Kerala is exposed to sea erosion.

5.33 Till March 1982, an amount of Rs. 45 crores has been spent to protect 256.13 km. of coast line. During the year 1981-82 only Rs. 525 lakhs was provided. This was finally modified to Rs. 631 lakhs. An amount of Rs. 700 lakhs was spent with corresponding increase in physical achievement during the year. Against the original target of 12 km. of formation of new sea wall and reformation of 5 km. of existing sea walls, 15 km. of new sea walls were formed in addition to 5 km. of reformation.

5.34 The physical and financial achievements for the year 1981-82 in respect of flood control and anti-sea erosion work are given in Table 5.3.

TABLE 5.3

<i>Flood Control And Anti Sea Erosion</i>			
Item	Benefits during 1981-82	Anticipated achievement during 1982-83	
		Financial	Physical
(1)	(2)	(3)	(4)
1. Anti Sea Erosion	15 km. of New Sea Walls and 5 km. of Reformation of Old Sea Wall	525 lakhs	12 km. of New Sea Wall and 5 km. of Reformation of old Sea Wall
2. Flood Control	1210 ha.	75 lakhs	1050 ha.

### Power

5.35 The failure of the monsoon restricted power generation in the State in 1982. The low intensity of rainfall resulted in meagre inflows into the hydel reservoirs during 1982, and it was only 91,616 Mcft. as against an inflow of 2,25,367 Mcft. during 1981. Consequently, the State had to resort to a power cut of 20 per cent on high tension and extra high tension consumers from December 1982. Export of power to Tamil Nadu and Karnataka was appreciably reduced from July 1982 and almost discontinued from September 1982. Stoppage of export of power to the neighbouring States and the power cut imposed on major consumers have severely affected the revenue returns of the Kerala State Electricity Board. The shortfall in the revenue of the K. S. E. B. on account of the shortfall in power generation is estimated as Rs. 59 crores. The shortfall in industrial production, because of the power cut, would also be of the order of several crores of rupees.

5.36 Till March 1982 the total investment in the power sector was Rs. 605 crores which accounts for about 25 per cent of the total plan expenditure

incurred by the State. As a result of the above sizeable investment in the power sector, the installed electrical power generation capability of the State recorded an impressive growth from 132.5 MW in 1960-61 to 1011.5 MW at present. During this period the annual power generation increased from 591 Mkw/h to 5539 Mkw/h. The per capita power consumption also rose from 30 kwh in 1960-61 to 115 kwh in 1981-82.

5.37 During the year under review, 110 KV substations at Vaikom, 66 KV substations at Walayar, Kandassankadavu, Chavara and Edappal were completed. A total number of 1.79 lakh service connections were provided, 33,182 street lights were installed, 12,688 pumpsets were energised and 562 Harijan and Tribal colonies were provided with electricity during the year 1982.

5.38 During 1981-82, an amount of Rs. 72.17 crores was spent on power sector against the plan outlay of Rs. 50.07 crores. The increase in expenditure was mainly due to the additional expenditure necessitated for the ongoing generation schemes and for the transmission and distribution schemes. It is anticipated that an amount of Rs. 57 crores

would be spent during the current year i. e., 1982-83 as against a plan outlay of Rs. 50 crores.

### Generation Projects

5.39 The power generation potential created through the completed power projects in the State and the actual generation of power in 1981-82 are given in Table 5.4.

TABLE 5.4

Power Projects in Kerala— Power Generation Capability 1981-82

Name of the Project	Installed capacity in M.W.	Energy Potential Mkw.h.	Units Generated Mkw.h.
1. Pallivasal	37.5	284	241.34
2. Sengulam	48.0	182	160.46
3. Neriamangalam	45.0	237	288.54
4. Panniar	30.0	148	120.25
5. Peringalkuthu	32.0	170	222.90
6. Sholayar	54.0	233	257.14
7. Sabarigiri	300.0	1213	1541.77
8. Kuttiadi	75.0	248	294.40
9. Idukki	390.0	2015	2412.50
Total	1011.5	4730	5539.30

5.40 Details relating to generation schemes, transmission and distribution works are given in the following paragraphs:

#### Ongoing Projects:

##### (1) Idamalayar Hydro Electric Scheme

5.41 The Idamalayar Project estimated to cost Rs. 74.70 crores is a low head hydro-electric scheme in Idukki District. It is a multipurpose scheme for power, irrigation, industrial and domestic water supply and salinity control in the lower reaches of Periyar. The project comprises a reservoir of 1090 M. Cum capacity by constructing a 91 m high straight gravity concrete dam across Idamalayar river and diversion of this water through a water conductor system to the 75 MW generating station located on the left bank of the river to produce 320 million units of energy per annum. The dam concreting is in progress and about 55 per cent is over by end of 1982. The power house works are also in progress. Due to labour dispute, the tunnel could not be constructed as programmed. Contracts for the tunnel lining works together with the balance driving of 24 meters and for the surge shaft works have been awarded recently and works are expected to be commenced soon. As per latest programme the two units of the scheme will be commissioned by 9/84 and 11/84 respectively. The expenditure on the project upto 3/82 is Rs. 44.64 crores. During 1982-83 the cash flow upto 11/82 is Rs. 7.58 crores.

##### (2) Idukki Stage III

5.42 This is an augmentation scheme estimated to cost Rs. 11.50 crores and aims at diversion of adjacent Kallar and Erattayar waters to the Idukki reservoir for augmenting the power generation at Idukki power station by 376 million units per annum. Though works on the scheme was commenced in 1975-76 labour problems, contract failures, rehabilitation problems due to the enactment of the Forest Conservation Act 1980 and the resultant physical obstruction caused by the local settlers etc., affected the works very badly resulted in the slippage of the earlier completion schedule.

5.43 In respect of Kallar diversion system, the 2905 m long Kallar tunnel is almost complete except a length of 60 m. The tunnel would have been through in 6/82 but for strike. This is under negotiation for a settlement. The construction of the Kallar dam was commenced during the year and about 30 per cent completed by 8/82 when the work was abandoned by the contractor demanding higher revision of rates. The contractor is being persuaded to recommence the works.

5.44 In respect of Erattayar diversion system the 3803 m. long tunnel was made through in 1979-80 and diversion was effected during monsoon of that year. The Erattayar dam works stopped in 2/81 due to labour strike when about 27 per cent of the masonry/concrete works were over, and could not be resumed.

5.45 Attempts are being made to resolve all the issues involved. According to the latest indications it might be possible to complete the scheme works by 1983-84. The expenditure on the project upto 3/82 is Rs. 8.94 crores and during 1982-83 cash flow upto 11/82 is Rs. 0.57 crores.

##### (3) Sabarigiri Augmentation

5.46 This scheme estimated to cost Rs. 6.14 crores envisages diversion of the adjacent Upper Moozhiyar waters to the Kakki reservoir and Kullar, Gaviar, and Meenar waters into the Pamba reservoir for additional power generation of about 125 million units per annum at the existing Sabarigiri power station.

5.47 All the works relating to the Upper Moozhiyar diversion to Kakki reservoir were completed and diversion effected from 5/79 onwards. The works relating to Pamba diversion were affected very badly due to labour problems, contract failures, non-availability of forest land for work sites etc., resulting in the slippage of the completion schedule.

5.48 The 2104 m. long Gaviar-Meenar diversion tunnel is the critical item of work of this scheme. After failure of an earlier contract, a new contract has been arranged and the tunnel driving works are progressing now. Main works of the 11000 m Gaviar dam have been completed. Works on Kullar, Meenar I and Meenar II dams are in various stages of construction now due to the aforesaid reasons. These works are being resumed/re-arranged and it is expected to complete

all the works on the scheme by 1984-85. The expenditure on the scheme upto 3/82 is Rs. 4.37 crores and the cash flow during the year 1982-83 upto 11/82 is Rs. 0.29 crores.

#### (4) Kakkad Hydro Electric Scheme

5.49 This 50 MW scheme is primarily a tailrace scheme of the existing Sabarigiri Hydro Electric Project. The project will add to the State grid 262 million units of energy per annum. Works on the scheme were commenced in 1978-79 and major portion of construction of infrastructure works is over. Though contracts for the construction 3 km. long inter connecting tunnel and 7.5 km. long power tunnel were entered into in 10/79 and works commenced, these contracts had to be terminated in 6/81 due to contract failures. Alternate arrangements are being made in respect of these works. Works on other major component structures of the project are also being arranged. As per present assessment the project which costs Rs. 29.20 crores is expected to be completed in 1987. The amount spent on the scheme upto 3/82 is Rs. 4.66 crores. The cash flow upto 11/82 during 1982-83 is Rs. 1.53 crores.

#### (5) Idukki Stage II

5.50 This Canadian-aided project, costing Rs. 80 crores to add 3 more units of 130 MW (4th, 5th and 6th units) in Idukki Power Station is primarily meant to meet the peaking needs of the power system. The contracts for the supply of generating units and steel plates for pressure shaft liners have been awarded and steel plates arrived at Cochin in 10/82 from Canada. Contract for the fabrication of steel liners have also been awarded. All other enabling works are on hand at work site. The present programme is to commission the 4th unit by 12/84, 5th unit by 3/85 and 6th unit by 6/85. The cash flow on the scheme during the current year upto 11/82 is Rs. 1.37 crores.

#### (6) Kallada H. E. Scheme

5.51 This Rs. 11.8 crores scheme is a low head scheme with a dam to power station in the ongoing Kallada irrigation scheme. It envisages installation of 2 units of 7.5 MW each to generate 65 million units of energy per annum and is scheduled for completion by 1984-85.

5.52 Preliminary and enabling works on the power scheme have been commenced. Global tenders for generating equipment have been received and they are under scrutiny in Central Electricity Authority as the project is posed for being sponsored for Japanese aid.

#### (7) Silent Valley H. E. Scheme

5.53 The 240 MW (under two stages) Silent Valley Hydro Electric Scheme located in Palghat District envisages utilisation of waters of Kunthipuzha river, a tributary of Bharathapuzha for power generation to the tune of about 522 million units of energy per annum. The waters released from the power station can be further utilised for irrigating about 10,000 hectares of land lower

4/723/MC.

down the Valley. As per 1979 estimate the cost of the scheme is Rs. 58 crores for first stage development. Though the scheme commenced in 1973, it was slowed down due to paucity of funds at the initial stages and later for want of clearance from Government of India on ecological angle. At present all the works in respect of the Project have been suspended as directed by the Government of India.

#### (8) Lower Periyar H. E. Project

5.54 This scheme is conceived as a tailrace cum run off the river scheme in the lower reaches of Periyar just below the Neriamangalam power station. The installed capacity, firm power benefit and annual power generation of the scheme are 180 MW, 56.3 MW and 493 million units respectively. Techno-economic clearance for the scheme from the Central Electricity Authority and environmental clearance from the Department of Science and Technology, Government of India, have been received. Clearance from the forest angle as per Forest Conservation Act 1980 is yet to be obtained. Sanction from Planning Commission is also awaited. Preliminary and enabling works on the scheme are in progress.

#### (9) Advance Action

5.55 Advance action have been commenced on new schemes like Karapara-Kuriarkutty, Kuttiadi Augmentation, Mananthavady and Pooyankutty, the project reports of which have been forwarded to the Central Electricity Authority.

#### (10) Survey and Investigation

5.56 Extensive survey and investigation works for new hydel schemes as well as collection of hydrological and meteorological data required for the preparation of project reports were continued during the year also. Project Reports on Munnar H. E. Scheme with installed capacity of 240 MW costing about Rs. 182 crores is under preparation.

5.57 Project report on Peringalkutha and Adirappally scheme with installed capacity of 200 MW costing Rs. 130.55 crores has been forwarded to Central Electricity Authority for approval.

#### Transmission

5.58 Since larger outlays had to be earmarked for generation schemes, adequate investments could not be made for the transmission works. This has resulted in unsatisfactory voltage levels, high line losses and frequent interruptions in supply. Several of the substations and lines originally scheduled for construction during the fourth and fifth five year plans are still to be completed. Forest Conservation Act 1980 and organised mass resistance from the public against cutting of trees are serious bottlenecks in the construction of transmission lines. Delays in acquisition of land required for the construction of substations are creating problems in the construction of substations.

5.59 The following substations and related transmission lines were completed during the year 1982. 110 KV substation at Vaikom, 66 KV substations at Walayar, Kandassankadavu, Chavara and Edappal. Works on other substations and lines to be completed during the Sixth Plan Period were also undertaken during 1982. Expenditure for Plan works for transmission during 1981-82 was Rs. 16.57 crores.

5.60 The progress of achievements in the transmission sector is given in Table 5.5.

TABLE 5.5

*Progress of achievements on Transmission and Distribution*

Particulars	Position as on 31-3-1981	Position as on 31-12-1982
1. 220 KV Lines Ct. 2m.	886.8	887.3
2. 110 KV Lines Ct. Km.	1545.2	1672.7
3. 66 KV Lines Ct. Km.	2075.5	2322.5
4. 11 KV Lines Km.	14188.5	15725.6
5. LT Lines Km.	51635.9	65330.5
6. Step up Transformer Capacity MVA	1148.0	1148.0
7. No. of E.H.T. Substations	91	100
8. Step down Transformer Capacity MVA	2928.5	3085.5
9. Distribution Transformers		
(a) Nos.	11656	12923
(b) Capacity—KVA	972112	1246784
10. No. of Villages Electrified	1268	1268
11. No. of Consumers	1587577	1969133
12. No. of Street Lights	372005	432346
13. No. of Irrigation Pumpsets	86795	107040

**Distribution and Rural Electrification**

5.61 Kerala State Electricity Board had launched a special drive during 1980-81 for clearing pending applications for new electric connections. The efforts for clearing off pending connections was continued during the year 1982. Major achievements during the year 1982 are given below:

Services connected up	..	1,79,596
Street lights installed	..	33,182
Agricultural pumpsets energised	..	12,688
Harijan and tribal colonies electrified	..	562

5.62 All the villages in the State as per the 1971 census have been electrified during 1979-80. But several of the Karas in these villages are still to be electrified. Electrification of Karas also has been taken up with loans from Rural Electrification Corporation. Here again inadequacy of funds is the main bottleneck. Budget allocation for works in the distribution sector for 1981-82 was Rs. 23.39 crores and actual expenditure was Rs. 32.95 crores.

5.63 The district-wise distribution of pumpsets energised in the State by the end of December 1982 is given in Table 5.6.

TABLE 5.6  
*Pumpsets Energised—District-wise*

District	No. of Pumpsets Energised	
	As on 31-3-1981	As on 31-12-1982
Trivandrum	1557	2295
Quilon	965	1248
Alleppey	1011	1030
Kottayam	3308	3957
Idukki	1867	2223
Ernakulam	16738	18830
Trichur	41024	50103
Palghat	11396	14331
Malappuram	3931	5480
Kozhikode	1305	1371
Cannanore	3588	5809
Wynad	105	363
Total	86795	107040

**Financial position of the K. S. E. Board**

5.64 The revenue receipts of the Board for the year 1980-81 is Rs. 106.87 crores and that for 1981-82, as per latest estimate is Rs. 124.51 crores. After meeting the operation, maintenance and management expenses including depreciation, the net surplus available for payment of interest on loans from Government and other financial institutions comes to Rs. 36.16 crores during 1980-81 and Rs. 44.40 crores during 1981-82. The interest payable on loans from Government and Financial institutions for 1980-81 and 1981-82 is Rs. 23.69 crores and Rs. 29.42 crores respectively.

5.65 Thus after meeting all the expenses incurred in connection with the generation, transmission and distribution of electricity, the Board has earned a surplus of Rs. 12.46 crores during 1980-81 and Rs. 14.98 crores during 1981-82. The surplus available during 1980-81 has been utilised for clearing the past liabilities in respect of interest on loan from State Government shown as contingent liability in the accounts of the Board. The contingent liability which stood at Rs. 9.09 crores as on 31-3-1980 has not only been adjusted completely, but also shows a net surplus of Rs. 3.37 crores as on 31-3-1981.

5.66 The figures for 1982-83 are provisional based on estimates taking into account the power cut imposed by the Board with effect from 1-2-1982. If the rate of power cut is enhanced during the

financial year the gross revenue will be decreased and the deficit increased to that extent. The total capital investment of the Board will be Rs. 605.76 crores by end of 1981-82, and Rs. 662.76 crores by end of 1982-83, resulting in a net additional capital investment of Rs. 57 crores. During 1982-83 it is estimated that the gross revenue will be Rs. 109.64 crores and the net operating surplus will be Rs. 18.60 crores. The interest payable during the year is Rs. 31.83, resulting in a net deficit of Rs. 13.23 crores by the end of the year.

#### **Power Tariff**

5.67 The Kerala State Electricity Board has to raise revenue from internal resources to contribute

a reasonable sum towards the cost of its capital works. The escalation in prices of all commodities and services, including plant and equipment, increased operation and maintenance cost of supply systems, increased rate of interest payable on loans, and highly subsidised tariff given to certain categories of consumers have all resulted in the present tariff rate becoming inadequate for the Board to make a reasonable revenue return.

5.68 The average rate of electricity supply and electricity duty for different categories of consumers are given in Appendix 5.7.

## CHAPTER 6

### INDUSTRY

#### An Overview

The incentives and financial assistance offered by the State Government enabled to have a noticeable increase in the number of small scale industries in the State. During 1981-82, 3023 small scale industries were newly registered with the Department of Industries and Commerce. This has resulted in the creation of additional employment to the tune of 32,800. In the large and medium sector, 13 industrial units were given financial assistance during the year by the Kerala State Industrial Development Corporation. Among, these three were new units and the remaining were existing units taking up expansion diversification. Among the new units, Wood Systems (India) Private Ltd. and United Veneers (Private) Ltd. started production during 1981-82. The South India Wire Ropes Ltd. has completed the diversification for the production of cable armour strips. There was substantial increase in the sales turnover of the Keltron group of companies. It has crossed Rs. 25 crore mark during 1981-82 and expected to be over Rs. 50 crores in 1982-83. The Kerala State Textile Corporation has taken steps for starting three spinning mills with 12,000 spindle capacity each, in the districts of Cannanore, Malappuram and Alleppey, in the first stage. Two other mills, one in Palghat district and another in Trivandrum district, would be taken up for implementation during the second stage.

6.2 Out of 16 manufacturing companies in the State fully owned by the State Government, seven units are managed by the holding company, Kerala State Industrial Enterprises Ltd. Production and sales turnover of all these companies recorded noticeable increase during 1981-82. Excepting Trivandrum Rubber Works Ltd. and Kerala Ceramics Ltd, Kundra the remaining five units have earned profit during the year. Among the industrial units outside the management of the Kerala State Industrial Enterprises Limited, Steel Industries Kerala Limited improved its working results during the year and earned profit against loss in the previous year. There was decrease in the profit earned by the Kerala Minerals and Metals Limited during the year as compared to the previous year. The losses sustained by Trivandrum Spinning Mills, Foam Mattings (India) Limited and Scooters Kerala Limited have increased during the year. Kerala Automobiles Limited, Trivandrum and Malabar Cements Limited, Palghat are in the advanced stages of implementation. The first phase of manufacturing, viz. production of 500 three wheelers, in Kerala Automobiles Limited is expected to be achieved by the end of 1982-83. Trial run in the cement factory at Walayar is expected to commence by the middle of 1983.

6.3 Among Government majority companies, Travancore Cochin Chemicals Ltd, United Electrical Industries Ltd., Travancore Cements Ltd., Traco

Cable Co. Ltd. and Forest Industries (Travancore) Ltd. were working on profit during 1981-82. All these companies have shown increase in their profits compared to the previous year. All the same, special mention has to be made regarding the performance of Travancore Cochin Chemicals Ltd. and Travancore Cements Ltd. which have almost doubled their profits compared to the previous year. Travancore Titanium Products Limited, Transformers and Electricals Kerala Ltd., Chalakudy Refractories Ltd. and Travancore Sugars and Chemicals Ltd. have incurred losses during the year.

6.4 Among Government of India Companies, Cochin Refineries Ltd., Indian Rare Earths Limited and Modern Food Industries (India) Limited have substantially increased their production and profit margin during 1981-82. Hindustan Machine Tools Ltd., Kalamassery and Hindustan Latex Limited, Trivandrum, have also increased their production considerably and earned profits against losses during the previous year. Indian Telephone Industries Limited increased its production during the year and maintained its profit margin at almost the same level as in the previous year. FACT Ltd. and Hindustan Insecticides Ltd., on the other hand, have incurred heavy losses during the year.

6.5 The problems of unemployment and under employment in the traditional industries of coir, handloom and cashew persisted. As a result of intensive efforts for revitalising the coir industry, more primary coir co-operative societies have been organised. These co-operatives have purchased 190 million husks during 1981-82 as against 161 million during the previous year. The value of coir yarn produced by these societies increased by 38 per cent during the year. On the other hand, the production and export in the manufacturing co-operative societies have declined considerably. The handloom sector experienced difficulties due to the increase in the price of yarn during the year. About 4000 looms have been additionally brought under the co-operative fold during the year. Production of handloom cloth in the co-operative sector during 1981-82 was 33 million metres worth Rs. 22 crores as against 30.5 million metres worth Rs. 15.25 crores in the previous year. There was slight decline in the production of cloth by Handloom Development Corporation from 15.40 lakhs metres in 1980-81 to 14.17 lakh meters in 1981-82. Scarcity of raw nuts continued to be the major problem in the cashew industry rendering about a lakh of labourers unemployed during major part of the year. Nearly 61,700 tonnes of raw nuts were procured internally and 28,600 tonnes were imported. Processing of these raw nuts could provide employment only for about two and a half months during the year. The Khadi and Village Industries Board through its Special Employment Programme, created about 10,000 additional employment during the year.

## Industrial Production

6.6 Industrial production in the State increased by 16.4 per cent during 1980-81 over the previous year as the annual average index of industrial production increased from 160.74 in 1979-80 (base 1970=100) to 187.10 in 1980-81. The quarterly index of industrial production rose from 159.29 at the end of March 1980 to 179.12 at the end of the first quarter ending June 1980 and to 197.15 at the end of the quarter ending September 1980. But it decreased to 191.60 at the end of December 1980 and further to 180.53 at the end of March 1981. There was an increase of 12 per cent in industrial production during the first quarter of the year 1980-81 and 24 per cent in the second quarter over the corresponding periods in the previous year. The rates of growth decreased to 17 per cent in the third quarter ended December 1980 and again to 13 per cent in the quarter ended March 1981. Substantial increase has been recorded in the manufacture of food products, machine tools, electrical machinery etc., during the year. The production of textile products, wool, silk and synthetic fibre textiles, rubber, plastic, petroleum products etc., on the other hand, witnessed marginal decrease.

6.7 Value added by manufacture, at current prices, has increased from Rs. 473.87 crores in 1979-80 to Rs. 557.17 crores in 1980-81 registering an increase of 17.6 per cent. The growth of registered manufacturing sector was 15.4 per cent and

that of unregistered manufacturing sector 20 per cent. Net domestic product originating from manufacturing sector at constant (1970-71) prices, on the other hand, recorded an increase of only 0.95 per cent from Rs. 218.25 crores in 1979-80 to Rs. 220.32 crores in 1980-81.

## Working Factories and Employment

6.8 The number of registered factories and employment in the State at the end of 1981 was almost stagnating at previous year's level. The number of factories increased to 9106 at the end of 1981 from the previous year's level of 9104, registering an increase of only two, i.e., one each in the districts of Ernakulam and Cannanore. The increase in the number of registered factories during 1980 was 613 and in 1979 it was 707. Average daily employment in these factories also showed only a marginal increase of 71 during 1981. Increase in employment is noticed only in the case of Alleppey, Ernakulam and Cannanore districts to the extent of 59, 11 and 11 respectively. In the case of Kottayam district, there was marginal decrease to the extent of 10.

6.9 The district-wise break up of registered working factories and employment is shown in Table-6.1. The industry-wise and district-wise distribution of the working factories and employment is given in Appendix 6.1.

TABLE 6.1

### Registered Working Factories in Kerala

District (1)	Number of Factories			Number of Employment		
	1979 (2)	1980 (3)	1981 (4)	1979 (5)	1980 (6)	1981 (7)
1. Trivandrum	324	361	361	18802	19769	19769
2. Quilon	837	901	901	126313	124624	124624
3. Alleppey	570	625	625	16794	17749	17808
4. Kottayam	639	697	697	8316	8736	8726
5. Idukki	123	125	125	4635	4734	4734
6. Ernakulam	1436	1563	1564	39592	40809	40820
7. Trichur	970	1001	1001	21653	21853	21853
8. Palghat	908	942	942	11682	11909	11909
9. Malappuram	184	240	240	2925	3575	3575
10. Kozhikode	1189	1235	1235	22934	23887	23887
11. Cannanore	1311	1414	1415	21856	22799	22810
Total	8491	9104*	9106*	295502	300444*	300515*

Source: Directorate of Economics and Statistics.  
\* Provisional

## Central Public Sector Investment

6.10 Central public sector investment (gross block) in India increased by about 14 per cent during 1980-81 from Rs. 18161 crores at the end of March, 1980 to Rs. 21172 crores at the end

of March, 1981. The States of Maharashtra, Madhya Pradesh and Bihar received the central investments to the tune of Rs. 514 crores, Rs. 405 crores and Rs. 390 crores respectively during 1980-81. In Kerala however only Rs. 59 crores accounting for 1.96 per cent of the total investment

was made during the year. Share of the State in the total central public sector investment decreased to 2.27 per cent from the previous year's level of 2.33 per cent. The shares of other southern States like Andhra Pradesh and Tamil Nadu, on the other hand, have registered increase during this period. Details relating to

state-wise value of property under the central public sector as at the end of March 1980 and 1981 are given in Table 6.2. A brief account of the activities of some of the major Government of India manufacturing concerns during 1981-82 is given below:

TABLE 6.2

*State-wise Value of Property (Gross-Block)  
Under Central Public Sector*

(Rs. in Crores)

State/Union Territory	As on 31st March 1980		As on 31st March 1981	
	Value of Property	Percentage	Value of Property	Percentage
(1)	(2)	(3)	(4)	(5)
1. Andhra Pradesh	775.12	4.27	987.56	4.66
2. Assam	490.37	2.70	666.88	3.15
3. Bihar	3151.67	17.35	3541.40	16.73
4. Gujarat	879.80	4.85	1068.45	5.05
5. Haryana	252.97	1.39	261.15	1.23
6. Himachal Pradesh	127.02	0.70	147.80	0.70
7. Karnataka	746.45	4.11	864.64	3.99
8. Kerala	422.84	2.33	481.96	2.27
9. Madhya Pradesh	2230.77	12.28	2634.67	12.44
10. Maharashtra	1313.94	7.23	1826.80	8.63
11. Orissa	928.37	5.11	1038.99	4.91
12. Punjab	362.52	2.00	418.64	1.98
13. Rajasthan	337.62	1.86	361.56	1.71
14. Tamil Nadu	747.74	4.12	922.57	4.36
15. Uttar Pradesh	802.28	4.42	1017.90	4.81
16. West Bengal	1540.39	8.48	1731.11	8.18
17. Jammu & Kashmir	7.05	0.04	10.03	0.05
18. Delhi	501.89	2.76	604.16	2.85
19. Goa	6.37	0.03	6.94	0.03
20. Other States/Union Territories	150.24	0.83	176.43	0.83
21. Unallocated	2385.72	13.14	2422.14	11.44
Total	18161.14	100.00	21171.78	100.00

Source: Public Enterprises Survey, 1980-81  
Bureau of Public Enterprises, Ministry of Finance, Government of India.

### 1. Cochin Refineries Limited

6.11 The performance of Cochin Refineries Limited was quite encouraging during 1981-82. The Company processed 31,20,283 tonnes of crude oil averaging 63,965 BPCD during 1981-82 compared to 29,12,451 tonnes averaging 59,282 BPCD in the previous year. Value of production and sales turnover of the Company during 1981-82 registered growth of 37 per cent each over those of the previous year. Value of production increased from Rs. 55823.38 lakhs in 1980-81 to Rs. 76500 lakhs in 1981-82. Sales turnover increased to

Rs. 76803.24 lakhs as compared to Rs. 56064.65 lakhs in the previous year. There was substantial increase in the net profit earned by the Company which rose from Rs. 202.63 lakhs in 1980-81 to Rs. 619.85 lakhs in 1981-82. These improvements in the working results of the Company were achieved despite certain production hurdles faced during 1981-82 such as plant shut downs and power failures.

6.12 The Government of India continued to arrange supply of crude oil to the Refinery under agreements with oil producing nations of the Middle



East In addition to the 445658 tonnes of Bombay High Crude, the Company received other varieties of crude oil for processing which include Arabian Light, Basrah, Darius, Dubai Crude, Iranian Heavy, Kuwait Crude, Light Iranian, Maya, Rostam, Salman, Sassan and Umm-Shaif. The implementation of the Secondary Processing Project, cost of which is revised at Rs. 116.66 crores and the Capacity Expansion Project costing Rs. 15.93 crores, has been progressing satisfactorily during 1981-82. These projects are scheduled to be completed by March, 1984. In 1981-82 the Company availed an amount of Rs. 19 crores from the Oil Industry Development Board (IODB) for the implementation of the Secondary Processing Project. Of the loan of US \$ 200 million to the Government of India approved by the International Bank for Reconstruction and Development, for the refinery modernisation projects, it is expected that a part of it, i. e., US \$ 35 million will be available to the Company for its Secondary Processing and Capacity Expansion Projects.

#### *Fertilisers and Chemicals Travancore Limited*

6.13 During 1981-82 production of fertilisers by the Company registered a decline to 5,82,225 tonnes from 6,16,188 tonnes in the previous year. In terms of nutrient nitrogen, the overall production was 1,66,839 tonnes against 1,70,335 tonnes attained during 1980-81. Production of phosphorous pentoxide was 59,306 tonnes compared to 70,876 tonnes in the previous year. Total value of production, on the other hand, has shown improvement to the extent of 9 per cent over the previous year's level, due to price rise. It amounted to Rs. 14641.82 lakhs as against Rs. 13443.51 lakhs in 1980-81. Sales turnover also increased by 7 per cent to Rs. 13131 lakhs. However, the operations of the Company during 1981-82 resulted in a net loss of Rs. 1098.97 lakhs compared to a net profit of Rs. 160.37 lakhs in 1980-81. The adverse working results are mainly due to lower production and higher consumption of inputs in Cochin Division Phase II Plants; increase in number of shut downs, higher maintenance costs etc. Besides, the prices of naphtha and sulphur, the main inputs of ammonium sulphate has increased considerably, while the increase could not be shifted on to product pricing due to market constraints. Though the Cochin Division of the Company established new records during 1981-82 in the production of ammonia and urea, there was decline in the production of complex fertilisers. Lower production in the Udyogamandal plants was mainly due to extraneous reasons like shortage of sulphuric acid, salinity in river water, power interruptions and failure of new air blower in the acid plant. Government of India, in April 1982, accorded sanction for the establishment of a Caprolactum Project along with revamping and rehabilitation of the Udyogamandal Division of FACT. The Project, involving an outlay of Rs. 148 crores, is to manufacture 5000 tonnes of caprolactum and 2,25,000 tonnes of ammonium sulphate as a co-product per annum by the High Sulphate Route based on benzene from Cochin Refineries Limited. Urgent steps are being taken by the FACT to establish the caprolactum plant, which should

enable to have down-stream industries in the manufacture of nylon in and around Udyogamandal.

#### *Indian Rare Earths Limited*

6.14 The operations of the two major divisions of the Company located in the State viz. Rare Earths Division at Udyogamandal and Minerals Division at Chavara, were satisfactory during 1981-82. Substantial progress has been achieved by these units in respect of value of production and sales turnover as compared to those in the previous year. The value of production of the Rare Earths Division amounted to Rs. 591.60 lakhs during the year 1981-82. Sales turnover increased to Rs. 559.66 lakhs during this period compared to Rs. 510.55 lakhs in 1980-81. About 57 per cent of the total sales turnover of this Division, i. e., Rs. 317.66 lakhs was realised through export sales to USA, UK, Europe and Japan through the foreign associates of the Company. Rate of capacity utilisation in respect of all the items excepting rare earths fluoride and cerium oxide has shown improvement over the previous year. Minerals Division of the Company located at Chavara manufactured minerals worth Rs. 274.33 lakhs during 1981-82. Sales turnover of this Division amounted to Rs. 514.09 lakhs, marking a growth of 22 per cent over the previous year's level of Rs. 420.07 lakhs. An amount of Rs. 248.98 lakhs i. e., 48 per cent of the total sales turnover was realised through export to Japan and West Germany. Rate of capacity utilisation in respect of ilmenite and zircon has shown decline during 1981-82. To improve recoveries of valuable minerals such as rutile and zircon, the Company is now adopting "wet separation techniques". The working of the company as a whole, resulted in a net profit of Rs. 157.30 lakhs during 1981-82 as against Rs. 85.20 lakhs in 1980-81.

#### *Modern Food Industries (India) Limited*

6.15 The Edappally (Cochin) Unit of the Company manufactured 194.80 lakh numbers of modern bread worth Rs. 295.05 lakhs and 7.72 lakh numbers of modern buns worth Rs. 20.76 lakhs during 1981-82. Thus the total value of production of the Unit during this period amounted to Rs. 315.81 lakhs as compared to Rs. 257.50 lakhs in the previous years, marking a growth of over 22 per cent. Sales turnover of the Unit has also increased correspondingly during 1981-82 and stood at Rs. 315.81 lakhs as against Rs. 257.23 lakhs in the previous year. Major consumers of the items manufactured in this Unit were the general public, Government hospitals, Navy and Special Nutrition Programme Centres. The operations of the Unit during 1981-82 ended with a gross profit of Rs. 44.78 lakhs as compared to Rs. 29.53 lakhs in the previous year.

#### *Hindustan Latex Limited*

6.16 The Company has recorded remarkable improvement in all its operational activities during 1981-82. Value of condoms manufactured by the

Company during 1981-82 amounted to Rs. 637 lakhs as compared to Rs. 234 lakhs in the previous year. Sales turnover has also recorded an increase of 167 per cent over the previous year's level of Rs. 238.38 lakhs and stood at Rs. 636.90 lakhs during this period. The operations of the Company during 1981-82 resulted in a profit of Rs. 54.76 lakhs. After providing for taxation and paying interest charges, the net profit stood at Rs. 31.22 lakhs as against a net loss of Rs. 44.98 lakhs in 1980-81. Rate of capacity utilisation in respect of contraceptive condoms has increased to 92 per cent from the previous year's level of 36.5 per cent. Another important achievement during 1981-82 was the completion of a substantial export order of 30 million pieces of Lubricated condoms to U. S. S. R. through an Export Agent. The Company has secured a COB Licence for production of meteorological balloons upto 45,000 per annum. Production of this item has already been started on a trial basis.

#### *Indian Telephone Industries Limited*

6.17 There was considerable improvement in the performance of the Electronic Switching Division of the Indian Telephone Industries during 1981-82. This Unit manufactured 23,175 lines of electronic switching equipment valued at Rs. 238.44 lakhs during this period as compared to 9680 lines in 1980-81. During 1981-82, the Unit earned an income of Rs. 112.78 lakhs through the sale of electronic switching equipment as compared to Rs. 78.31 lakhs in the previous year. The sales turnover of the Unit is estimated to reach a level of Rs. 399 lakhs by the end of 1982-83 and Rs. 845 lakhs by the end of March 1974. There was marginal decline in the net profit earned by the Unit to Rs. 13.32 lakhs from Rs. 14.25 lakhs in the previous year. The Company is implementing an expansion scheme for the manufacture of 1,50,000 lines of digital switching equipment per annum. Considerable progress has been achieved in the implementation of this scheme and 25,000 lines have been installed by the end of March 1982.

#### *Hindustan Insecticides Limited*

6.18 The overall performance of the Udyogamandal Unit of the Hindustan Insecticides during 1981-82 was not encouraging. Though the rate of capacity utilisation in respect of all the items excepting technical D. D. T. and endosulphan 35 EC improved, value of production decreased to Rs. 778 lakhs from Rs. 865.80 lakhs in the previous year. Total sales turnover, however, increased to Rs. 836.24 lakhs, during the year, registering a growth of 62 per cent over the previous year's level of Rs. 517.50 lakhs. The operations of the unit during this period resulted in a net loss of Rs. 187.96 lakhs compared to Rs. 135.65 lakhs in 1980-81.

#### *H M T Limited*

6.19 The Kalamassery Unit of the HMT Limited has achieved substantial progress in its working during 1981-82. Both the value of production and sales turnover of the Unit increased

noticeably during this period. Value of machine tools and printing machines manufactured by this Unit increased to Rs. 1653.84 lakhs from Rs. 629.13 lakhs in 1980-81. Sales turnover of the Unit has also increased at the same rate and amounted to Rs. 1,664.13 lakhs as against Rs. 664.20 lakhs in the previous year. Of this an amount of Rs. 287.98 lakhs has been realised through export sales. Rate of capacity utilisation in respect of both the products has also registered substantial growth over the previous year's level. These improvements in the overall performance helped the Unit achieve a net profit of Rs. 215.91 lakhs during 1981-82 compared to a net loss of Rs. 143.55 lakhs in 1980-81. During 1981-82 the Company took steps to implement a project in the Printing Machine Division of the Unit for the manufacture of Multi Colour Sheet-fed Offset Printing Machines in collaboration with M/s Koenig & Bauer A. G. of West Germany.

6.20 Appendix 6.2 and 6.3 provide details on the main features and the production and capacity utilisation respectively of the Government of India Companies.

#### *Joint Stock Companies in the State*

6.21 There were 2061 joint stock companies (493 public limited and 1568 private limited) in the State as on 31st March, 1982. This shows a net addition of 193 companies during 1981-82. Total number of companies newly registered during 1981-82 was 203, comprising 187 private limited and 16 public limited companies. Ten companies—five private and five public—were wound up during this period. Number of Government Companies in the State as on 31-3-1982 stood at 76 consisting of 34 public limited and 42 private limited companies as against 74 as on 31-3-1981. The two private limited companies registered in the Government sector during 1981-82 were Kerala Wood Industries Limited, Calicut and Kerala Artisans' Development Corporation Limited, Trivandrum. Details of the Joint Stock Companies in the State are presented in Table 6.3.

TABLE 6.3

#### *Joint Stock Companies in the State*

Item	Public	Private	Total
(1)	(2)	(3)	(4)
1. Total Number of Joint Stock Companies as on 31-3-1981	482	1386	1868
2. Number of Companies Newly Registered during 1981-82	16	187	203
3. Number of Companies Wound up during 1981-82	5	5	10
4. Net Addition to the Number of Companies during 1981-82	11	182	193
5. Total Number of Joint Stock Companies as on 31-3-1982	493	1568	2061
6. Total Number of Government Companies Registered up to 31-3-1982	34	42	76
7. Number of Government Companies Registered during 1981-82	Nil	2	2

## Industrial Promotional Agencies

### Kerala State Industrial Development Corporation.

6.22 This Corporation, set up in July 1961, is the pioneer organisation engaged in the promotion of industrial development activities in the State. The activities of the Corporation are concentrated in the development of industrial ventures in the medium and large scale sector, through rendering financial as well as technical assistance. During 1981-82, 13 new industrial units have been assisted by the Corporation, raising the total number of units assisted/promoted to 88 by the end of March, 1982. The

units assisted in 1981-82 consisted of three promoted units, seven new and three existing units for undertaking expansion/diversification schemes.

6.23. There was substantial increase in the volume of financial assistance sanctioned and disbursed by the Corporation during 1981-82. Net cumulative financial sanctions to the 88 assisted and promoted units at the end of March 1982 aggregated Rs. 3845 lakhs including share capital, underwriting loans and guarantees. Total disbursement on that date amounted to Rs. 3129 lakhs. The details of financial assistance sanctioned and disbursed by the Corporation during the last three years are given in Table 6.4

TABLE 6.4

#### Financial Assistance Sanctioned and Disbursed by KSIDC

(Rs. lakhs)

Item	1979-80		1980-81		1981-82	
	Sanctioned	Disbursed	Sanctioned	Disbursed	Sanctioned	Disbursed
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Share Capital	3.30	41.44	87.96	28.07	85.15	67.79
Loan	93.00	121.74	224.15	151.19	517.16	270.03
Guarantee	..	..	39.00	..	47.50	..
Total	96.30	163.18	351.11	179.26	649.81	337.82

6.24. A comparative statement of total financial assistance sanctioned as well as disbursed by the

Corporation during the last three years is given in Table 6.5.

TABLE 6.5

#### Comparative Statement of Financial Assistance Sanctioned and Disbursed by KSIDC from 1979-80 to 1981-82

Item	1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)
Applications Received	190.30	351.11	698.20
Assistance Sanctioned	96.30	351.11	649.81*
Amount Disbursed	163.18	179.26	337.82

\* Of this an amount of Rs. 4.90 lakhs was subsequently withdrawn.

6.25. Among the new units assisted by the Corporation, Wood Systems (India) Pvt. Ltd., and United Veneers (Pvt.) Ltd. started production during 1981-82. The diversification scheme of South India Wire Ropes for the production of cable armour strips was also completed during this period. Towards the end of March 1982 the Corporation had 27 projects under various stages of implementation, 36 projects under finalisation and a set of about 180 projects under various stages of investigation and development. Among the 27 projects under implementation, eight were promoted projects, eight were new projects in the private/sponsored sector and 11 existing units having expansion/diversification programmes. Nineteen applications for refinance assistance totalling Rs. 400.15 lakhs had been submitted to Industrial Development Bank of India,

of which 13 applications aggregating Rs. 286.15 lakhs were sanctioned. The Corporation entered into agreements with eight parties under the New Package of Incentives (1979) for the preparation of feasibility reports and project reports on cost sharing basis. The Corporation submitted a proposal to the Government for revising the package of incentives for consideration.

6.26. The paid up share capital of the Corporation stood at Rs. 549 lakhs (including Rs. 30 lakhs as share advance during the year) as against an authorised share capital of Rs. 700 lakhs. Investment of the Corporation in the share capital of the promoted assisted units, on the other hand amounted to Rs. 786.82 lakhs (including share advance of Rs. 23.9 lakhs given to eight units). Corporation's market

borrowings as on 31st March, 1982 totalled Rs. 1175 lakhs. Loan assistance outstanding with the promoted/assisted companies aggregated to Rs. 1065.23 lakhs. The Corporation earned an income of Rs. 115.17 lakhs during 1981-82 including the interest of Rs. 93.63 lakhs. Dividend received during 1981-82 was of the order of Rs. 18.83 lakhs. Net profit earned by the Corporation, after providing for depreciation amounted to Rs. 2.91 lakhs as compared to a marginal profit of Rs. 0.44 lakh in 1980-81.

#### Kerala Financial Corporation

6.27. The loan transactions of the Kerala Financial Corporation have declined considerably during 1981-82, compared to the previous year. The Corporation received 615 applications for an aggregate

amount of Rs 1965.73 lakhs during 1981-82, as against 924 applications for Rs. 2321 lakhs during 1980-81. There was corresponding decline in the sanction as well. During the year 251 applications for an amount of Rs. 552.37 lakhs were sanctioned as against 561 applications involving Rs. 1301.05 lakhs during the previous year. The number of effective sanctions during 1981-82 was 197 for an amount of Rs. 401.11 lakhs. It was even less than half of the effective sanction during the previous year, when 431 applications for 995 lakhs were sanctioned. Actual disbursement during 1981-82 amounted to Rs 585.4 lakhs which was less than the corresponding figure for the previous year by Rs. 257 lakhs. The decline in the receipt and disposal of applications was consequent on the emphasis on collection of overdues. Table 6.6 gives a comparative statement of loan transactions during the past three years.

TABLE 6.6

## Kerala Financial Corporation—Loan Transactions

(Amount Rs. in lakhs)

Particulars	1979-80		1980-81		1981-82	
	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Applications Received	876	2571	924	2321	615	1966
Applications Sanctioned (Gross)	833	1218	567	1301	251	552
Applications Sanctioned (Effective)	704	997	431	995	197	401
Loan Disbursed	430	730	636	842	282	585

The cumulative figures of loan transactions of the Corporation as on 31-3-1982 are provided in Table 6.7.

TABLE 6.7

## Cumulative Figures of Loan Transactions till 31-3-1982

(Amount Rs. in lakhs)

Particulars	Small Scale		Others		Total	
	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Applications Received	6813	2284	464	4116	7277	16400
Effective Sanction	4380	6064	315	2357	4695	8421
Loan Disbursed	3741	4251	294	1855	4035	6106

6.28 The Kerala Financial Corporation continued to give priority to small scale industries and backward areas in sanctioning loan. Applications numbering 275 out of the total of 282 cases were for small scale industries. The amount disbursed to small scale industries was Rs. 510 lakhs constituting about 87 per cent of the total disbursement. During 1981-82, 32.52 per cent of the total applications received was from the back-

ward districts of Trivandrum, Alleppey, Trichur, Malappuram and Cannanore and these districts accounted for 59.89 per cent of the effective sanctions and 47.87 per cent of the disbursement. The corresponding figures for the previous year were 44.8 per cent, 43.4 per cent and 26.1 per cent. District-wise details of sanctions and disbursement are shown in Appendix 6.4 and industry-wise details in Appendix 6.5.

6.29 As in the previous years, central investment subsidy (15%) and state investment subsidy (10%) for industries were routed through the Corporation to assisted units. The amount routed through the Corporation as Central subsidy was Rs. 30.80 lakhs and as state subsidy Rs. 50.40 lakhs. The Corporation received Rs. 25 lakhs by way of special share capital assistance under seed capital scheme in small scale industries. The Corporation has so far sanctioned 40 applications, involving Rs. 23.11 lakhs under the scheme. The amount actually disbursed was Rs. 10.89 lakhs for 15 applications.

6.30 Credit guarantee scheme and monitoring of sick units are other schemes implemented by the Corporation. Upto 25th September 1981, 2479 cases involving an aggregate of Rs. 3158 lakhs have been covered under the Credit Guarantee Scheme. During the year under review the Corporation revived 3 sick units involving an amount of Rs. 31.74 lakhs and 3 other sick units involving Rs. 43.70 lakhs are in the process of revival in participation with SIDECO or on the basis of the revival programme prepared by KITCO.

6.31 The authorised share capital of the Corporation is Rs. 10 crores and paid up capital as on 31-3-1982 is Rs. 5.6 crores. About 55 per cent of the share capital is contributed by the State Government and about 41 per cent by the Industrial Development Bank of India. The working of the Corporation resulted in attaining a gross profit of Rs. 158.58 lakhs and a net profit of Rs. 10.06 lakhs during 1981-82. A summary of the Profit and Loss Account of the Corporation is given in Table 6.8.

TABLE 6. 8

Summary of the Profit and Loss Account of the Kerala Financial Corporation

Item	(Rs. in lakhs)		
	1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)
<b>Income</b>			
Interest on Loans	299.05	425.55	544.49
Other Income	11.09	15.11	6.45
<b>Total</b>	<b>310.14</b>	<b>440.66</b>	<b>550.94</b>
<b>Expenditure</b>			
Interest on Bonds and Borrowings	231.28	284.00	298.57
Other Expenses	77.10	86.56	93.79
Profit Before Taxation	1.76	70.10	158.58
	<b>310.14</b>	<b>440.66</b>	<b>550.94</b>
<b>Appropriation</b>			
Provision for Taxation	Nil	29.70	53.54
General Reserve	Nil	Nil	Nil
Special Reserve	1.00	20.54	94.98
Bad Debts Written off	Nil	42.96	Nil
Balance Available for Payment of Dividend	0.76	Nil	10.06
Dividend Payable	9.10	11.33	16.45

6.32 The Corporations overdues outstanding at the end of 1981-82 was Rs. 2227.35 lakhs, excluding amount due from suit filed cases and the mills taken over by NTC and KSTC. The Corporation is making all-out efforts to improve the recovery of its dues.

#### State Public Enterprises

6.33 The State Public Enterprises include Government owned Companies, Government Majority Companies and State owned Industrial Corporations. There are sixteen Government owned companies seven of which are managed by the Holding Company, the Kerala State Industrial Enterprises. The Government Majority Companies are ten in number of which five concerns have performed well during the year under review. In regard to the State owned Corporations, the Kerala State Electronics Development Corporation has gone in for considerable diversification of its activities during the year. It has achieved a turnover of Rs. 25 crores in 1981-82 and is expected to reach a turnover level of Rs. 50 crores by the end of the current year. Since a detailed review of the performance of the State public sector industrial undertakings including the industrial Corporations has been brought out in a separate publication by the State Bureau of Public Enterprises, it is not proposed to give a detailed analysis of the performance of these enterprises in this Review.

#### Village and Small Scale Industries

##### A. Small Scale Industries

##### (i) Department of Industries and Commerce

6.34 The incentive schemes, assistances, concessions etc. prevalent in the small scale industries sector motivated many entrepreneurs to start new industrial ventures in the State during 1981-82. As on 31-3-1982 there were 21,977 registered small scale industrial units in the State of which 3,023 were established during 1981-82. This shows an increase of 16 per cent in the number of small scale units established compared to the previous year. District-wise number of registered small scale units is given in Table 6.9. The number of small scale units registered in the districts other than Quilon, Alleppey, Ernakulam and Malappuram shows increase over the previous year. The largest number of units registered during the year was in Trichur district. The additional employment generated during 1981-82 from the new SSI and Artisans units is estimated to be around 32,800. An amount of Rs. 586.23 lakhs was spent for the development of small scale industries and handicrafts during 1981-82. This includes Rs. 16 lakhs towards special central assistance. Out of the total expenditure, Rs. 59.29 lakhs was spent for entrepreneurs belonging to scheduled castes/scheduled tribes as against Rs. 31.54 lakhs spent during 1980-81.

6.35 (No addition was made in the number of Mini-Industrial Estates. Of the existing 108 Mini Industrial Estates 72 are under co-operative series and 36 are under SIDECO series. As on 31-3-1982 there are 9 development plots in the State.)

TABLE 6.9

District-wise number of Registered Small Scale units as on 31-3-1982

District	Registered during 1979-80	Registered during 1980-81	Registered during 1981-82	Total Registered as on 31-3-1982
(1)	(2)	(3)	(4)	(5)
Trivandrum	185	252	303	2425
Quilon	230	293	238	2304
Alleppey	248	333	264	2126
Kottayam	323	201	305	1864
Idukki	49	66	71	368
Ernakulam	402	505	326	3352
Trichur	281	372	406	2584
Palghat	160	232	303	1215
Malappuram	75	250	162	1117
Calicut	313	208	244	1987
Cannanore	322	268	399	2635
Total	2588	2980	3023	21977*

\*Provisional

6.36 Rehabilitation assistance was given to 14 sick units during 1981-82. Table 6.10 gives district-wise details of sick units identified during 1981-82.

TABLE 6.10

District-wise Distribution of Sick Units

District	No. of units Identified as Sick
(1)	(2)
Trivandrum	48
Quilon	53
Alleppey	42
Kottayam	33
Idukki	16
Ernakulam	193
Trichur	61
Palghat	43
Malappuram	24
Calicut	47
Cannanore	40
Total	600

6.37 Five new industrial co-operative societies were registered during 1981-82 in the small scale sector of which 3 were in Trichur district and one each in Alleppey and Quilon Districts. District-wise

number of small scale industrial co-operative societies as on 31-3-1982 is given in Table 6.11.

TABLE 6.11

Industrial Co-operative Societies as on 31-3-1982

District	No. of Industrial Co-operatives as on 31-3-1982
(1)	(2)
Trivandrum	201
Quilon	186
Alleppey	147
Kottayam	87
Idukki	20
Ernakulam	102
Trichur	202
Palghat	71
Malappuram	70
Calicut	92
Cannanore	113
Total	1291

6.38 Financial assistance to the tune of Rs. 11.74 lakhs was provided to SSI Co-operatives during 1981-82. It includes share participation of Rs. 9.99 lakhs, managerial grant of Rs. 1.47 lakhs and contribution to reserve fund of Rs. 0.29 lakh.

(ii) *The Kerala State Small Industries Development and Employment Corporation (SIDEKO)*

6.39 SIDEKO, incorporated with an authorised share capital of Rs. 5 crores in 1975, has at present a paid up share capital of Rs. 441.21 lakhs. The activities of the Corporation include the promotion of industrial estates, distribution of raw materials for the small scale industries, hire purchase arrangements for machinery, rehabilitation of sick industrial units, management of production units etc. The functions of the Corporation are performed through the following 12 divisions:—

1. Research and Development Division
2. Industrial Estate and Infrastructure Division
3. Production Division
4. Raw Materials Division
5. Machinery Division
6. Finance Division
7. Technical Consultancy Division
8. Entrepreneur Development Division
9. Imports and Exports Division
10. Marketing Division
11. Sick Units Rehabilitation Division
12. Information and Publicity

6.40 The Production Division manages 16 production and service units. Of these SIDECO Porcelain Products and Functional Industrial Estate for Ceramics, Quilon, are not functioning. A comparative picture of the working results of the remaining 14 production units for the years 1980-81 and 1981-82 is given in Table 6.12

TABLE 6.12

## Working Results of SIDECO Units

Name of Units (1)	Nature of Products (2)	Production Value (Rs. in lakhs)		Profit+ /Loss— (Rs. in lakhs)	
		1980-81 (3)	1981-82 (4)	1980-81 (5)	1981-82 (6)
1. Tile Factory, Amaravila	Tiles and Bricks	9.14	8.81	(+)0.48	(-)0.33
2. Government Instrument Workshop, Pappanamcode	Optical Instrument and Wooden Furniture	30.21	30.25	(+)6.91	(+)7.40
3. Diecasting Unit, Pappanamcode	Die Cast Parts	5.84	4.90	(-)1.19	(-)0.18
4. Kerala Water Proof Products, Pappanamcode	Garments and upholstery items	2.76	4.30	(-)0.26	(-)0.49
5. Wood Workshop, Kollakadavu	Wooden Furniture	17.20	13.76	(+)0.94	(-)0.54
6. Straw Board Factory, Parumala	Ascu Treatment of Timber	3.16	6.11	(+)0.47	(-)0.41
7. Service Workshop, Ollur	Steel Fabrication	6.16	4.33	(+)0.60	(-)0.37
8. Wood Workshop, Calicut	Wooden Furniture	30.00	38.60	(+)4.56	(+)4.56
9. Ceramic Service Centre, Mangattuparamba	Sanitary and Crockery items	1.00	1.15	(+)0.14	(+)0.14
10. SIDECO Tools, Umayanalloor	Dies, Jigs and Fixtures	2.40	3.05	(-)1.89	(-)3.07
11. SIDECO Auto Engineering, Pachalam	Steel Fabrication and Automobiles repairs	16.46	9.35	(+)1.26	(-)0.84
12. SIDECO Khaitan Fans, Kalamassery	A.C. Ceiling Fans	15.52	31.48	(-)3.08	(-)9.15
13. SIDECO Equipment Complex, Thycaud	N.M. Charka	7.20	5.16	(-)3.77	(-)4.37
14. SIDECO Foundry, Ottappalam	G.I. Castings	3.92	5.13	(-)1.12	(-)1.70
Total		150.97	166.38	(+)4.05	(-)9.35

6.41 The operations of 14 production units under SIDECO resulted in a cash loss of Rs. 9.35 lakhs in 1981-82, as against a profit of Rs. 4.05 lakhs in the previous year. In the Straw Board Factory ascu treatment of teak wood required for Kerala State Electricity Board has been started as a diversification programme. Expansion programme has been introduced in Kerala Water Proof Products. The Die Casting Unit, Auto Engineering Unit and Service Workshop are now getting regular orders. Production has gone up in SIDECO Khaitan Fans, Kalamassery, SIDECO Foundry, Ottappalam and SIDECO Equipment Complex, Mavila. Steps have been taken to transfer the two defunct units viz. SIDECO Procelain Products and Functional Industrial Estate for Ceramics, Quilon under the control of the Kerala State Industrial Enterprises Limited.

6.42 The provisional working results of SIDECO indicate a total turnover of Rs. 2602.85 lakhs during 1981-82. Of this cement accounted for Rs. 1288.51 lakhs and other raw materials Rs. 1159.73 lakhs, together forming about 94 per cent of the total turnover.

parative picture of the working results of the remaining 14 production units for the years 1980-81 and 1981-82 is given in Table 6.12

## (iii) Small Industries Service Institute

6.43 The Small Industries Service Institute with its 3 Extension Centres at Calicut, Shoranur and Alleppey and a Central Workshop, Foot Wear Service Centre and Fruit Preservation Centre at Trichur caters to the needs of small scale entrepreneurs in Kerala State and the Union Territory of Lakshadweep by providing technical and management consultancy, common facility etc.

6.44 During 1981-82 the Institute prepared feasibility reports on PVC pipes, red oxide zinc chrome primer, biscuits, cutlery, draughting machine and dearing pug mill. Also on the request of the State Government, the Institute prepared a status report on rubber-based industries in Kerala assessing the reasons for slow growth of the industry. The Institute prepared work review reports and conducted diagnostic surveys to assess the extent of sickness in the small scale sector. About 1300 entrepreneurs were assisted in selecting new products.

6.45 The Institute organised 9 entrepreneurial training programmes, 41 technical courses and 2 techno-managerial courses. A total of 490

persons were trained in these courses. One month EDP Programme for fruit preservation exclusively for women and 2 months course for scheduled caste/scheduled tribe for manufacture of leather foot-wear and goods were the highlights under the programme. Training in smithy, carpentry and leather for one month duration was conducted in the mobile demonstration vans attached to the Institute. Inplant studies on 7 small scale industries units and 3 seminars/workshops were conducted during the period. The Institute prepared 75 project profiles on different industries during the year.

6.46 Under the ancillary and sub-contract exchange programme, 41 new ancillary units were identified. Two buyers/sellers meet and a regional seminar were organised under the programme in collaboration with other developmental agencies. Sixty-eight new small scale units were registered under the sub-contract exchange programme. The Institute prepared a status report on marine products processing industry and a project report for setting up a leather complex.

6.47 The Extension Centre, Alleppey, developed a few pedal operated coir spinning machines and demonstrated for the benefit of the Central Coir Research Institute, Kalavoor. The Centre has also developed a bobbin winding machine, high precision jigs and fixtures and mechanisms to cut aluminium wire to the correct required length, and to split the head of steel pins.

6.48 The Central Workshop, Ollur completed a job to the optimum requirement of a rice and oil mill at Trichur using the limited facilities available in the workshop. The workshop assisted MERADO, CSIR Complex, Cochin in fabricating a drum assembly for grading pepper as per their drawings and specifications.

6.49 With the assistance of Extension Centre, Shoranur, an ancillary unit could solve the problems in manufacturing drop forging dies of various sizes of switchgear handles to the correct specifications

6.50 The Extension Centres and workshops provided common facility services to 1674 small scale units. Technical guidance was offered to a spice manufacturing unit in designing an oil-water separation unit. A beverage manufacturing unit was provided with technical know how in the use of chemical stabilisers in preparing quality mango beverages. The SIDECO Foundry Unit was given on the spot technical assistance in the rectification of rough surfaces and hard metal of the castings.

6.51 The Small Industries Service Institute has been in close liaison with all the District Industries Centres in the State and took part in the training programmes and seminars organised by them. The Institute assisted the Task Force constituted by the Central Government for development of nucleus plant and ancillaries in the District of Alleppey by identifying suitable upstream and downstream projects based on resources and demand in various fields. The

Institute also assisted the State Social Welfare Board by scrutinising various schemas evolved for women entrepreneurs.

## B. Coir Industry

6.52 Government's activities in the coir sector are mainly aimed at bringing more workers into the co-operative fold in order to enable them get better wages and working conditions. Coir co-operative societies have been existing in the State since 1951. As on March 1982, there were 462 coir primary (spinning sector) co-operative societies having about 2.15 lakh members. These societies are workers' organisations with not less than 93 per cent worker members. They undertake direct production by paying fair wages to the workers. The number of different types of coir co-operative societies and their working results during the years 1978-79 to 1981-82 are given in Tables 6.13 and 6.14. The number of primary societies increased from 415 in 1980-81 to 462 in 1981-82 and the number of members from 1.96 lakhs to 2.15 lakhs. The co-operative societies purchased 190 million husks during the reference year, compared to 161 million during the previous year. The value of yarn produced during 1981-82 in the co-operative societies registered 38 per cent increase over the previous year. Compared to the previous year there was considerable decline in production and export in the manufacturing societies during 1981-82.

6.53 In spite of liberal assistance extended by the State Government, majority of the coir workers are still outside the co-operative fold. It is proposed to bring atleast 60 per cent of the workers into the co-operative fold by the end of the Sixth Plan period. There is a suggestion to organise co-operative societies of small scale manufacturers. Government of India have recently evolved a scheme for extending financial assistance through the Coir Board for the expansion and development of coir co-operatives. The Central assistance consists of share capital contribution, managerial subsidy, financial assistance for purchase/renovation of equipment and machinery and marketing assistance.

6.54 As in the previous years, non-availability of raw husks at reasonable price continues to be the major constraint in the coir sector. Though the Coconut Husk Control Order 1973 has been under implementation, the co-operative societies are not getting adequate quantity of raw materials for uninterrupted production throughout the year.

6.55 Another vital problem in the coir sector, is the continuous stockpiling of coir products. This creates large scale unused capacity resulting in underemployment and unemployment. In order to tide over this difficulty the State Government extended loan to the State Co-operative Coir Marketing Federation for distress purchase of coir and coir products. Interest-free loan of the order of Rs. 85 lakhs was provided to the Coir Marketing Federation (Rs. 75 lakhs in 1980-81 and Rs. 10 lakhs in 1981-82). Government have also stood guarantee to the State Co-operative Bank



for cash credit accommodation of Rs. 250 lakhs each during 1980-81 and 1981-82 to the Co-operative Coir Marketing Federation to lift the accumulated stock from coir primaries. Financial assistance by way of working capital loan and share capital contribution has been provided to primary and manufacturing societies to overcome the difficulties created by the accumulated stock. The export market, in the coir industry, continues to be dominated by the private sector. Fluctuations of prices in the export market, competition from countries like China and Ceylon, lack of shipping opportunities, heavy freight charges, lack of proper market information etc., prevent the co-operative sector from dominating the export market. With a view to improving the marketing of coir and coir products, there are proposals to implement schemes such as rebate on sale of coir products, discount sale of coir yarn, freight subsidy to exporters, sponsoring trade delegation to foreign countries, organisation of ware house-cum-sales office in Europe, giving award to best exporters, assisting product diversification and setting up of craft centre.

6.56 During 1981-82 an amount of Rs. 313.24 lakhs was spent on various schemes under Coir Development. This includes Rs. 46.25 lakhs towards loan assistance received from NCDC.

TABLE 6.13  
Number of Coir Co-operative Societies as on 31-3-1982

Type of Co-operative Societies	Vilable	Potentially Vizable	Total
(1)	(2)	(3)	(4)
1. Primary Coir Co-operative Societies (in the Spinning Sector)	106	356	462
2. Manufacturing Societies	8	10	18
3. Coir Marketing Federation	1	..	1
4. Husk Procurement & Distribution Societies	..	3	3
<b>Total Marketing Societies</b>	<b>115</b>	<b>369</b>	<b>484</b>
Dormant Societies			24
Societies under Liquidation			211
<b>Total</b>			<b>719</b>

TABLE 6.14  
Activities of the Coir Co-operative Societies

(a) Primary Coir Co-operative Societies

Year	No. of Societies	No. of Members in ('000)	Husk Purchased		Yarn Produced		Wages Paid	
			No. (lakhs)	Value (Rs. lakhs)	Quantity (Tonnes)	Value (Rs. lakhs)	Workers ('000)	Amount (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978-79	401	158	1498	116	13024	355	65	226
1979-80	409	196	1570	148	15097	651	66	274
1980-81	415	196	1609	183	12473	523	73	283
1981-82	462	215	1900	189	16016	721	89	299

(b) Manufacturing Societies

Year	No. of Societies	No. of Members	Value of Production (Rs. lakhs)	Workers benefited (Nos.)	Wages Paid (Rs. lakhs)	Value of Export (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1978-79	13	1869	149	1367	27	38
1979-80	13	1869	199	1567	31	61
1980-81	13	1849	189	1421	29	39
1981-82	18	2344	140	1285	32	15

## (c) Central Marketing Societies/Marketing Federation

Year	No. of Societies	No. of Members	Value of Purchase made (Rs. lakhs)		Sales Effected (Rs. lakhs)		Total
			Fibre	Yarn	Inland	Export	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1978-79	4	514	326.00	351.7	636.4	..	636.4
1979-80	1*	514	..	442.6	344.3	10.6	354.9
1980-81	1	514	..	546.1	420.1	3.7	423.8
1981-82	1	514	..	540.0	535.4	0.2	535.6

\* The four central societies have been amalgamated to form the Marketing Federation on 27-10-1979.

### C. Handloom Industry

6.57 Handloom Industry in the State with about one lakh looms, provides employment to about 2 lakh persons. About 82 per cent of the total number of looms are concentrated in the districts of Cannanore, Trivandrum and Kozhikode, in that order, Cannanore district alone accounting for 42 per cent of the looms. The strategy adopted for revitalisation of the handloom industry is the organisation of viable handloom co-operative societies. There were 555 handloom weavers co-operative societies in the State at the end of 1981-82. Of these, 83 were factory type industrial co-operatives. Nearly 43,000 looms have been brought into the co-operative fold at the end of 1981-82, as against 39,000 at the end of the previous year. During 1981-82, the co-operative sector produced 33 million metres of handloom cloth worth Rs. 22 crores, as against 30.5 million metres worth Rs. 15.25 crores during the previous year. The Kerala State Handloom Weavers' Co-operative Society distributed yarn worth Rs. 240 lakhs to the primary societies affiliated to it and procured handloom cloth worth Rs. 692 lakhs during 1981-82. The sales turnover of the Apex Society increased from Rs. 672 lakhs in 1980-81 to Rs. 769 lakhs in 1981-82.

6.58 Kerala State Handloom Development Corporation, which is the agency for extending assistance to handlooms in the private sector, is implementing the Intensive Handloom Development Projects at Cannanore and Trivandrum and the Export Production Project, Cannanore. The total expenditure on these projects has shown substantial increase from Rs. 22 lakhs in 1980-81 to Rs. 40 lakhs in 1981-82. Thirty-eight production centres, consisting of 4945 weavers, have been started under the scheme till the end of 1981-82. The production of handloom cloth by

the Corporation decreased from 15.40 lakh metres in 1980-81 to 14.17 lakh metres in 1981-82. The value of export handloom cloth during the year by exporting agencies of the State was Rs. 6.56 lakhs.

6.59 The system of allowing 20 per cent rebate on sale of handloom cloth during festival seasons has been continued. During 1981-82 rebate has been given for 63 days, out of which 50 per cent central assistance is available for 30 days. The total expenditure on account of rebate during the year was Rs. 366.66 lakhs. The Apex Society and the primary societies were given financial assistance to the tune of Rs. 2.72 lakhs for purchasing vans and trucks for the promotion of marketing.

6.60 As part of strengthening the co-operative sector, share capital contribution of Rs. 14 lakhs was given to the Apex Society during the year. Further, an amount of Rs. 1.20 lakhs has been given to members of primary weavers' co-operative societies towards share capital loan and Rs. 4 lakhs for modernisation of looms. An amount of Rs. 5.18 lakhs was spent during the year for renovation of weaver's houses. Plan schemes included under Special Component Plan and Tribal Sub Plan have been implemented incurring higher outlays during the year. During 1981-82, an amount of Rs. 7.22 lakhs was spent for giving financial assistance to factory type weavers' co-operative societies exclusively for scheduled castes and scheduled tribes and Rs. 4.83 lakhs for giving training in weaving to members of scheduled castes and scheduled tribes, as compared to Rs. 3.39 lakhs and Rs. 2.89 lakhs respectively during the previous year.

## D. Cashew Industry

### (i) General

6.61 As in the previous years, the Kerala State Co-operative Marketing Federation was the sole agency for procuring and distributing raw cashew-nuts during 1981-82. The Marketing Federation had procured 61686 tonnes of raw nuts through the network of co-operative societies and distributed 52,770 tonnes for processing. District-wise details of the procurement and distribution of raw-nuts is provided in Table 6.15. Owing to fluctuation in the demand and price of cashew kernels in the export market the cashew processors are reluctant to take delivery of the raw nuts from the Marketing Federation at the price declared by the Government. As a result, 4785 tonnes of dried nuts are yet to be distributed and out of the quantity distributed 516 tonnes are yet to be taken delivery of by the processors. The procurement price of raw nuts varied from Rs. 620 to Rs. 800 per quintal and the selling price from Rs. 745 to Rs. 925 per quintal between different districts in the State.

6.62 During 1981-82, 28,582 tonnes of raw nuts valued at Rs. 36.22 crores have been imported, as against 25,625 tonnes, costing Rs. 19.48 crores during 1980-81. The quantity and value of raw nuts imported during the last few years are given in Table 6.16.

TABLE 6.15

*District-wise Procurement and Distribution of Raw-Nuts by the Kerala State Co-operative Marketing Federation during 1981-82*

(Quantity in Tonnes)

District	Raw Nuts procured during 1982 up to 30-6-1982	Raw Nuts Procured Raw Nuts Distributed up to 30-6-1982
(1)	(2)	(3)
Trivandrum	3657	2737
Quilon	6731	5656
Alleppey	1421	1758
Kottayam	1884	1059
Ernakulam and Idukki	3956	3577
Trichur	5664	5226
Palghat	1360	1151
Malappuram	10141	8568
Kozhikode	5123	4599
Cannanore and Wynad	21749	18439
Total	61686	52770

TABLE 6.16  
*Import of Raw Cashewnuts*

Year	Quantity in Tonnes	Index	Value in Rs. Crores	Index
(1)	(2)	(3)	(4)	(5)
1971-72	169,985	100	27.91	100
1972-73	197,938	116	31.81	114
1973-74	150,249	88	29.80	107
1974-75	160,358	94	36.60	131
1975-76	137,196	81	33.56	120
1976-77	75,122	44	18.33	66
1977-78	60,194	35	18.72	67
1978-79	20,576	12	9.15	38
1979-80	24,326	14	11.63	42
1980-81	25,625	15	19.48	70
1981-82	28,582	17	36.22	130

6.63 Cashew industry, though faced with many problems has been earning substantial foreign exchange by exporting cashew kernels and cashew shell liquid to countries like Japan, U. S. A., USSR, Czechoslovakia etc. During 1981-82, there was a decrease in the export of cashew kernels by 1268 tonnes compared to the previous year. But the increase in Unit value by Rs. 16 per kg. resulted in a substantial increase in the export value of cashew kernels by Rs. 46.09 crores. During 1981-82, 4777 tonnes of cashewnut shell liquid worth Rs. 2.19 crores was exported, as against 9006 tonnes valued at Rs. 6.84 crores during the previous year. Net foreign exchange to the tune of Rs. 152.91 crores was earned from cashew industry during 1981-82. Table 6.17 provides the foreign exchange earnings from cashew industry during the last seven years.

TABLE 6.17

*Foreign Exchange Earnings of India from Cashew Industry*

Year	Export value of		Total (2)+(3)	Import value of Raw Nuts	Net Foreign Exchange Earned
	Cashew Kernels	Cashew Shell Liquid			
(1)	(2)	(3)	(4)	(5)	(6)
1975-76	96.13	1.49	97.62	33.56	64.06
1976-77	105.99	1.08	107.07	18.33	88.74
1977-78	149.54	1.07	150.61	17.98	132.63
1978-79	80.02	4.90	84.92	9.16	75.76
1979-80	117.91	14.46	123.37	11.62	120.75
1980-81	140.85	6.84	147.69	19.48	128.31
1981-82	186.94	2.19	189.13	36.22	152.91

(ii) *The Kerala State Cashew Development Corporation*

6.64 The Kerala State Cashew Development Corporation with a share capital of Rs. 154 lakhs, is fully owned by the State Government. It has 34 cashew factories under its management providing employment to 33,856 persons of whom 31,833 are workers.

6.65 During 1981-82, 20,563 tonnes of raw nuts (14915 tonnes of indigenous nuts and 5648 tonnes of imported nuts) worth Rs. 2052 lakhs have been processed out of which 4872 tonnes of cashew kernels and 436 tonnes of cashewnut shell liquid have been produced. The total sales during 1981-82 consisted of 4542 tonnes of cashew kernels and 450 tonnes of cashew shell liquid.

6.66 The Corporation could provide employment to its labourers only for 73 days during the year under review. The turnover was Rs. 23.83 crores. The accumulated loss of the Corporation as on 31-3-1982 is Rs. 18.78 crores, as per provisional accounts.

*E. Khadi and Village Industries*

6.67 The Kerala Khadi and Village Industries Board has a significant role in generating employment opportunities by organising and developing Khadi and Village Industries in the State. The Board extends financial assistance to Co-operative Societies, registered institutions and individuals for implementing the schemes sponsored by it. As on 31-3-1982, the Board has extended financial assistance to 1633 co-operative societies, 509 registered institutions and about 8,000 individuals. During 1981-82 the Board disbursed Rs. 38.08 lakhs as grant and Rs. 314.70 lakhs as loan. An amount of Rs. 50 lakhs, received from the State Government was utilised for the implementation of the special employment programme started during 1979-80. The expenditure shows a decline to the tune of Rs. 55.21 lakhs over the previous year's expenditure of Rs. 457.99 lakhs.

6.68 Substantial increase has been realised in the quantity and value of production of Khadi and village industries during 1981-82. The value of production of Khadi during 1981-82 was 158.81 lakhs and that of village industries Rs. 2539 lakhs. This shows an increase of about 58 per cent in the value of Khadi Produced and 60 per cent in the value of village industries products over the previous years production. The sales turn over was of Rs. 2824 lakhs registering an increase of 53 per cent over Rs. 1849 lakhs during 1980-81. The total employment under Khadi and Village Industries during 1981-82 was 1.34 lakhs including casual labourers. Thus 11,000 persons were provided employment additionally during the year. Total wages paid during the year was Rs. 1055.74 lakhs which was 16 per cent higher than the previous year's wage bill of Rs. 882.89 lakhs. Details of production, sales, employment generated, etc., during 1980-81 and 1981-82 are given in Appendix 6.7.

6.69 The special employment programme was initiated in 1979-80 with a view to provide additional

employment to one lakh persons in three years. By the end of 1981-82, employment opportunities have been generated for 52,580 persons of which 10,750 job opportunities was created during 1981-82. Utilising the financial assistance from the State Government 123 sheds have been constructed as on 31-3-1982 and the remaining 178 sheds are under various stages of construction.

6.70 As part of Silver Jubilee Celebration of Kerala Khadi and Village Industries Board, steps have been initiated to implement Intensive Development Programmes of Khadi and Village Industries during 1982-83. For this the Board has adopted 12 villages, one in each district. The aim of the scheme is to provide employment to a minimum of 100 persons in each panchayat. The scheme is to be implemented during 1982-83.

*F. Bamboo Industry*

6.71 Kerala State Bamboo Corporation promotes bamboo and reeds industry in the State. Bamboo mat weaving is the typical item of work. About 3 lakh workers are engaged in this industry, including indirect employment.

6.72 During 1980-81 the Corporation has produced only 78.55 lakhs sq.m. of bamboo mat valued at Rs. 78.83 lakhs as against 80 lakh sq.m. of bamboo mats valued at Rs. 69.39 lakhs during the previous year. It is expected that production of bamboo mat by the Corporation would increase to 82.99 lakh sq.m. in 1982-83 and to 83.64 lakh sq.m. in 1983-84. As in the previous years, the Food Corporation of India, the Central and State Warehousing Corporations etc., were the main purchasers of bamboo mats. The Corporation has effected sales of bamboo mats for Rs. 164.36 lakhs during 1981-82 of this, bamboo mats worth Rs. 42.40 lakhs were sold within the State and the rest outside the State. Sales turnover during the previous year was of the order of Rs. 141.68 lakhs.

*G. Beedi Industry*

6.73 Kerala Dinesh Beedi Workers' Central Co-operative Society, organised according to the Beedi and Cigar Workers (Conditions of Employment) Act of 1966, is the only organised agency in the State which promotes beedi industry. The central society and its 22 primaries are statutorily independent organisations. The Central Society advances the raw materials and weekly wages to the primary societies. The paid up share capital of the central society as on 30-6-1982 is Rs. 34.75 lakhs of which Rs. 19.10 lakhs was invested by the State Government.

6.74 The raw materials required for the industry are beedi leaves, beedi tobacco, labels of various types and yarn. Except yarn, the other raw materials are procured from other states. During 1981-82, raw materials worth Rs. 2.97 crores was procured, and 515.34 crores of beedies valued at Rs. 13.41 crores were produced. The sales turnover during the year was of the order of Rs. 14.15 crores, a substantial portion of it (Rs. 13.65 crores) being from Kerala itself. By bringing more and more beedi workers into co-operative fold it is

expected that the sales turnover during 1982-83 would be Rs. 17 crores. Since the workers are paid the maximum wages and provided all other benefits as per Beedi and Cigar Workers Act, there is the possibility of more and more workers joining the Society and thus increasing the turnover to Rs. 20 crores by 1983-84.

### Mining

6.75 The responsibilities of the development of minerals and their exploration in the State are entrusted with the Department of Mining and Geology. The functions are being carried out by the two divisions of the Department viz., the Mineral Development and Mining Leases Division and the Exploration and Prospecting Division respectively. The Mineral Development and Mining Leases Division carried out the functions vested with the Department under the Mines and Minerals (Regulation and Development) Act of 1957, such as recommending to the Government the applications for grant of mining leases and prospecting licenses, quarrying permits and quarrying leases for minor minerals, execution of mining leases, prospecting licences and quarrying leases, inspection of mines and collection of royalty for major and minor minerals

etc. Other main functions carried out by the Department during 1981-82 through this Division were connected with the effective implementation of the Kerala Minor Mineral Concession Rules of 1967. The Department could control and check the clandestine movement of minerals and also the unauthorised and illegal mining of minerals.

6.76 The operations of Exploration and Prospecting Division during 1981-82 were mainly concentrated on the task of investigation of minerals and assessment of the mineral reserves in the State. During this period, the Division carried out detailed investigation of kaolinite and refractory clays at Pudukkai and Periya in Cannanore District and Perayam in Quilon District. Preliminary geological investigations for tile and brick clays in Kozhikode District, gem stones in Trivandrum District dimension stones at Agali area in Palghat District and graphite at Vadakod in Idukki District have also been carried out by the Division during 1981-82.

6.77 Data relating to production and sale of mineral sands and major minerals in the State during 1980-81 and 1981-82 are presented in Table 6.18 and 6.19 respectively.

TABLE 6.18  
Production and Sales of Mineral Sands

Mineral	1980-81			1981-82		
	Production (Tonnes)	Sales		Production (tonnes)	Sales	
		Quantity (Tonnes)	Value in Rupees (per tonne)		Quantity (Tonnes)	Value in Rupees (per tonne)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Ilmenite	217257	131711	300	105482	76419	326.25
2. Brown Ilmenite (Leucosene)	141	243	900	196	246	982.00
3. Rutile	5576	5721	2275	7312	6595	2807.50
4. Monozite	108	150	2000	89	80	2000.00
5. Zircon	1494	1072	1125	5713	3918	1268.00
6. Sillimanite	808	1158	890	1208	1530	973.00

TABLE 6.19  
Production and Sales of Major Minerals

Mineral	1980-81						1981-82							
	Production (MT)		Sales				Production (MT)		Sales					
	Raw	Processed	Raw	Quantity (MT.)	Value per tonne (Rs.)	Processed	Quantity (MT.)	Value per tonne (Rs.)	Raw	Quantity (MT.)	Value per tonne (Rs.)	Processed	Quantity (MT.)	Value per tonne (Rs.)
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. Glass and White Quartz Sand	41483	12670	69205	20	13994	30	65729	15828	65655	20	17492	25	589	100
2. China Clay	115507	55121	81898	100	35042	400	99386	44178	70110	108	32967	589	100	100
3. Fire Clay	879	..	769	68	..	..	215	..	202	68	..	..	..	..
4. Ball Clay	779	..	902	75	..	..	840	..	832	75	..	..	..	..
5. Lime Shell	112098	..	119303	75	..	..	103935	4440	106518	80	4440	100	100	100

*Kerala Mineral Exploration and Development Project*

6.78 The Project for the implementation of mineral exploration and development programme with UNDP assistance, started in 1977, continued its activities during 1981-82 also. The first phase of UN assistance for the Project ended in July, 1981. Since then the Project has been engaged in the follow up operations of certain programmes of the first phase and also in the preparatory work relating to the second phase of UN assistance. The second phase

was scheduled to commence from November, 1982 and end in April, 1984. During 1981-82, the UNDP deputed one of their consultants in connection with the implementation of the second phase of assistance which lays emphasis on the continued exploration for gold and the follow up of the scheelite mineralisation and other geochemical anomalies detected in the first phase. An amount of Rs. 15.25 lakhs was spent for the different activities of the Project during 1981-82.

## TRANSPORT AND COMMUNICATIONS

**An overview**

Kerala has achieved significant progress in the field of transport and communications. The State has a total road length of about 95,580 Kms. which works out to 376 kms. per lakh of population and 246 kms. per 100 sq. km. of area. Of the total length of roads in the State, 17,668 kms. of roads are maintained by the State Public Works Department. The registration of motor vehicles in the State has been showing an increasing trend during the past few years. Kerala had 567 vehicles per 100 sq. km. of area and 831 vehicles per lakh of population at the end of March, 1982. The passenger transport is mainly carried out by private operators especially in the Northern Districts of Kerala. The State Road Transport Corporation has increased its fleet strength from 3112 at the end of March, 1982 to 3182 in the current year (1982-83).

7.2 Kerala has a total railway network of about 916 kms. consisting of 113 kms. of metergauge and 803 kms. of broadgauge lines which works out to about 3.6 kms. per lakh of population. Einakulam - Alleppey broadgauge line under construction will add another 57 kms. to the route length. Considerable improvements have been brought out in passenger services in the State during the year 1981-82.

7.3 Air transport has assumed significance in recent times especially with the inauguration of daily direct flights by Air India from Trivandrum to Gulf countries. The present capacity is 142 seats per flight with 4 to 5 tonnes cargo capacity. Indian Airlines operations include Trivandrum-Bombay air bus service and Trivandrum-Trichi/Madras boeing 737 service. International Services to Colombo and Male are also operated from Trivandrum. With the introduction of Boeing service to Bombay from Cochin the passenger traffic has increased. Both the airports at Trivandrum and Cochin have to be adequately developed to meet the increase in traffic. Considering the heavy volume of traffic developing in Northern Kerala the construction work of the airport at Calicut has to be completed urgently.

7.4 The major port of Cochin continues to play a dominant role in both foreign and coastal trade. During 1981-82, 918 ships called at the port as against 788 ships in the previous year recording an increase of 16.3 per cent in shipping activity. The number of foreign going ships called at the Port recorded an increase of 13.5 per cent over the previous year while the number of coastal ships showed an increase of 29.1 per cent. The total traffic handled during 1981-82 reached the record level of 55.01 lakh tonnes which was 5.1 per cent more than the traffic of 52.33 lakh tonnes handled during 1980-81. In respect of intermediate and minor ports of Kerala there was significant traffic only through the ports at Neendakara, Calicut and Azhikkal, Calicut port accounting for 66 per cent of the total. It is worth recording that Calicut Port accounted for 70 per cent of the steamers that called at the minor ports.

7.5 Despite the severe competition from roadways, Inland Water Transport is still playing a useful role in the transportation of goods and passengers. The total length of navigable route in Kerala is about 1900 kms. The main canal, the West Coast Canal having a length of 560 kms. has maximum traffic in the portion between Quilon and Cochin. More than 220 lakh passengers made use of the water transport services during 1981-82. Replacement of old boats by modern fast moving boats is necessary to make the water transport services more economical and efficient.

7.6 In respect of communication facilities each Post Office in Kerala circle was serving an area of 8.39 sq.km. and a population of 5482 on an average. The number of telephone exchanges increased from 463 in April, 1981 to 491 in April, 1982 having a total equipped capacity of 1,08,960 lines. The telephone system was expanded by opening 28 new exchanges and expanding the capacity of 110 exchanges. Kerala has a telephone exchange at every 8.5 kms. on an average distance. The density of telephones in Kerala State is 3.12 per sq. km. compared to 0.85 of the whole country. The formation of the Calicut Telephone District in September, 1981 is a milestone in the development of telecommunications in Kerala.

**Roads**

7.7 The total length of roads in Kerala is about 95,580 kms. which works out to 376 kms. per lakh of population and 246 kms. per 100 sq. km of area as on 31st March, 1982. The major organisation responsible for the development of roads in the State is the Public Works Department. Besides the P. W. D., the Panchayats, Municipalities, Corporations etc., also maintain roads in the State. The length of roads maintained by various Departments in the State is given in Table 7.1.

TABLE 7.1

*Roads in Kerala under Different Departments as on 1-4-1982*

Name of Department	Length of Roads (Km.)
(1)	(2)
1. National Highways	839
2. Public Works Department	17,668
3. Panchayats	68,008
4. Corporations	1,239
5. Municipalities	3,822*
6. Forest Department	1,485
7. Others	2,519
<b>Total</b>	<b>95,580</b>

\* Relates to 1-4-1981.

7.8 Out of the total length of roads in the State, 17,668 kms. of roads are maintained by the State Public Works Department (Buildings and Roads). These roads are classified as State Highways, Major District Roads, Other District Roads and Village Roads. The total length of roads maintained by Public Works Department increased from 17,165 kms. in 1981 to 17,668 kms. in 1982. Of this 2079 kms. are State Highways and 5643 kms. Major District Roads. The category-wise length of these roads by type of surface is furnished in Table 7.2

TABLE 7.2

Category-wise Length of Roads Maintained by Public Works Department (B & R Wing) as on 1-4-1982.

(Surface-wise in Kms.)

Category	Cement Concrete	Black Topped	Water Bound Macadem	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)
State Highways	28	2051	..	..	2079
Major District Roads	10	5330	189	114	5643
Other District Roads	..	5765	971	1169	7905
Village Roads	..	353	340	1348	2041
Total	38	13499	1500	2631	17668

7.9 The Division wise break up of Public Works Department roads as on 1-4-1982 is furnished in Table 7.3. The category-wise length of roads in each Division under P. W. D. is furnished in Appendix 7.1. Taking into account the poor condition of many of the roads in the State, more emphasis is laid on the development of existing roads rather than the construction of new ones.

TABLE 7.3

Division-wise Length of Roads Maintained by Public Work Departments (B & R Wing) as on 1-4-1982

(in kms.)

Name of Division	Cement Concrete	Black Topped	Water Bound Macadem	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)
Trivandrum	..	1326	129	52	1507
Quilon	2	1752	486	223	2463
Alleppey	14	1280	12	70	1376
Kottayam	15	1369	119	341	1844
Idukki	..	895	73	336	1304
Moovattupuzha	..	932	106	89	1127
Ernakulam	1	557	76	38	672
Trichur	3	1295	35	86	1419
Palghat	..	1009	223	82	1314
Manjeri	..	826	30	328	1184
Calicut	..	576	127	329	1032
Wynad	..	470	10	52	532
Cannanore	3	1212	74	605	1894
Total	38	13499	1500	2631	17668

7.10 Major portion of the rural roads in the State is maintained by the Panchayats. Out of about 78,000 kms. of rural roads 68,000 kms are maintained by Panchayats. Condition of these roads is not satisfactory. Only 824 kms. of roads maintained by Panchayats are black topped/metalled and 16,259 kms. gravelled. Remaining length of roads are merely earthen roads. For the maintenance of these roads the Panchayats depend mainly on the financial grant provided by Government from time to time. During 1981-82, an amount of Rs. 348.64 lakhs has been received by various Panchayats as Village Road Maintenance Grant. For the development and proper maintenance of these rural roads more investment is necessary. Development of rural roads having bus traffic deserves top priority. Details of roads under Panchayats (District-wise) are furnished in Appendix 7.2.

### Road Transport

7.11 Among the available modes of transport, road transport assumes greater significance in the State. Road Transport operations may be broadly classified under goods transport and passenger transport. While goods transport by road is more or less a monopoly of private operators, passenger transport is carried out both by private operators and by the public sector State Road Transport Corporation. The importance of road transport in the State can be gauged by the increasing registration of motor vehicles in the State.

### Motor Vehicle Registration

7.12 The total number of vehicles registered in Kerala shows a substantial increase during the last two decades. During the last six years, the average annual increase has been in the range of 9 to 14 per cent (See Appendix 7.3). The number of motor vehicles registered in the State increased from 1.95 lakhs in 1980-81 to 2.21 lakhs in 1981-82, an increase of about 13.4 per cent. The density of motor vehicles is also high in Kerala compared to many other States in India. Kerala had 567 vehicles per hundred sq. km. of area and 831 vehicles per lakh of population at the end of March, 1982. The corresponding figures for all India during 1979-80 were 125 and 651 respectively.

7.13 Out of 220,733 vehicles having valid registration in the State as on 31-3-1982, 70,498 were scooters/motor cycles, 60,412 cars and 25,626 goods vehicles (4 wheelers and above). Category-wise number of motor vehicles having valid registration in each of the districts as on 31-3-1982 is furnished in Appendix 7.4.

7.14 During 1981-82, 18,638 vehicles were newly registered in the State as against 16,256 in the previous year. The number of vehicles newly registered in the State was highest in Ernakulam district (3,284). Out of 18,638 vehicles newly registered in the State, 9,174 were scooters/motor cycles, 2,475 autorickshaws and 2,174 cars (See Appendix 7.5).

7.15 The total revenue from motor taxes and fees collected under the Motor Vehicle



Taxes and Taxation of Passengers and Goods Act increased from Rs. 20.06 crores in 1980-81 to Rs. 21.68 crores in 1981-82. This works out to about 2.5 per cent of the total estimated revenue receipts of the State for 1981-82. However the cumulative arrears of tax under Motor Vehicles Act as on 31-3-1982 (including K. S. R. T. C.) comes to about Rs. 22.30 crores.

### Passenger Transport

7.16 Passenger transport operations in Kerala are carried out by the private operators and the Kerala State Road Transport Corporation. The Corporation is operating services throughout the State, while the private sector operations are concentrated largely in the northern districts of Kerala.

7.17 The number of buses owned by the Kerala State Road Transport Corporation increased from

3,112 at the end of March, 1981 to 3,182 at the end of March, 1982. However the number of schedules operated by the Corporation decreased from 2,568 as on 31-3-1981 to 2,564 as on 31-3-1982. The number of routes under operation also decreased from 3,729 to 3,679 during this period. This is reflected in the gross kilometres operated, effective kilometres operated and the number of passengers carried during 1981-82 (See Table 7.4). In spite of this decrease in the physical performance, the passenger earnings increased from Rs. 6,017 lakhs in 1980-81 to Rs. 6,647 lakhs in 1981-82. The average earnings per passenger rose from 85 paise in 1980-81 to 96 paise in 1981-82, while earnings per km. of buses operated increased from 272 paise to 308 paise. The earnings per vehicle on road per day improved from Rs. 712 to Rs. 820 during this period. The magnitude of expansion of the Kerala State Road Transport Corporation during the past 17 years (1965-66 to 1981-82) is shown in Table 7.4.

TABLE 7.4  
Operation of the Kerala State Road Transport Corporation 1965-66 to 1981-82

Item	1965-66	1975-76	1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)	(6)
1. No. of Buses Owned as on 31st March	921	2244	2935	3112	3182
Index	100	244	319	338	345
2. No. of Schedules Operated as on 31st March	697	1846	2500	2568	2564
Index	100	265	359	368	368
3. No. of Routes and under Operation as on 31st March	600	2538	3580	3729	3679
Index	100	423	597	622	613
4. Total Route Distance (km) as on 31st March	19878	106069	158690	160579	157618
Index	100	534	798	808	793
5. Gross kms. Operated in Lakhs	641.82	1798.93	2261.67	2266.72	2161.6
Index	100	280	352	353	337
6. Effective kms Operated in Lakhs	633.2	1782.9	2242.5	2247.9	2142.9
Index	100	282	354	355	338
7. Passengers Carried in Lakhs	1585.30	5183.37	7064.04	7058.70	6913.27
Index	100	327	446	445	436
8. Average Distance Travelled by a Passenger	12.5	14.2	14.6	14.6	14.5
9. Gross Revenue Earnings (Rs. in lakhs)	631.21	3091.21	5299.32	6138.93	N.A.
Index	100	490	840	973	..
10. Passenger Earnings (Rs. in lakhs)	586.78	3044.51	5200.81	6016.61	6647.20
11. Average Earnings per Passenger (in Ps.)	37.0	57.4	75.3	85.2	96.2
12. Earnings per km. of Buses Operated (in Ps.)	93.80	173.00	235.00	272	308*
13. Earnings per Vehicle on Road per day (Rs.)	229	491	619	712	820*
14. Gross Revenue expenditure (Rs. in lakhs)	590.66	3502.23	6140.61	7537.11	N.A.
Index	100	593	1040	1276	..
15. Nor of accidents per lakhs of gross Kms. operated	2.5	2.5	2.5	2.4	2.2
16. No. of Breakdowns per 10,000 Effective Kms. operated	1.1	2.4	3.0	2.8	2.6

\* Based on Passenger Earnings

7.18 The fare structure of the Corporation was revised with effect from 16-12-1981. The revised fare for various types of services is given in Table 7.5.

TABLE 7.5

*Fare Structure of Kerala State Road Transport Corporation as on 1-4-1982*

Type of Service	Basic Fare/ km (Ps.)	Minimum Fare (Ps.)
(1)	(2)	(3)
City	7	40
Ordinary	7	50
Fast Passenger	8	100
Express	9	300

7.19 The total capital invested by the Corporation as on 31st March, 1982 was about Rs. 55 crores of which Rs. 23 crores was the contribution from State Government, Rs. 10 crores from railways and the rest from internal resources and loans. The cumulative loss as on 31-3-1981 stood at about Rs. 50 crores. The total staff employed in the Corporation as at the end of March, 1982 was 29,683 comprising 4,768 in Administrative Branch, 17,563 in Traffic Branch and 7,352 in Maintenance Branch.

7.20 The fleet utilisation in K. S. R. T. C. during 1981-82 was only 77 per cent which is very low compared to many other National Road Transport undertakings. During 1981-82, each vehicle of the Kerala State Road Transport Corporation, on an average had run 266 kms. per day (See Appendix 7.7). The Corporation could commission only 144 buses during 1981-82 as against 269 in 1980-81. It may be mentioned that of the total number of 3,182 buses at the end of March, 1982, 935 buses were aged above 10 years. High operating costs, overaged vehicles and poor returns complete the vicious circle which has to be broken to put the Corporation on a firmer footing.

### Goods Transport

7.21 There has been considerable increase in the registration of goods vehicles (4 wheelers and above) in the State during the last few years (See Table 7.6). The number of goods vehicles (4 wheelers and above) registered in the State has increased from 22,896 as on 31-3-1981 to 25,626 as on 31-3-1982, showing an increase of about 13 per cent. During 1981-82, 1986 goods vehicles were newly registered in the State.

TABLE 7.6

*Growth of Goods Vehicles in Kerala*

As at the End of Year	No. of Goods Vehicles	Index
(1)	(2)	(3)
1968	10357	100
1974	13921	134
1978	17755	171
1979	17907	173
1980	20128	194
1981	22896	221
1982	25626	247

7.22 The State quota of National Permits as at the end of March, 1982 was 800 of which 602 permits were issued as at the end of March, 1982. In addition to this 2,630 goods vehicles registered in Kerala had permits to operate in other States during 1981-82.

### Railways

7.23 Kerala State has a total railway route-length of 916 khs. consisting of 114 kms. of metregauge and 803 kms. of broadgauge lines. This works out to one of the lowest route-length per lakh of population (3.6 kms) among the Indian States (Appendix 7.10). The Ernakulam-Alleppey broadgauge link, under construction, will add another 57 kms. to the route-length.

7.24 A major achievement of Southern Railway during the year was the replacement of inferior steam traction by superior traction like dieselisation and electrification on the broadgauge system. Among the steam loco sheds closed are the two sheds on Trivandrum Division and four sheds on Palghat Division. Thus considerable quantity of coal is being saved and diverted to industries.

7.25 The important developmental work underway in the State is the construction of new broad-gauge line between Ernakulam and Alleppey sanctioned during 1979-80. The project is estimated to cost Rs. 15.06 crores. Work on four major bridges between Kumbam-Nettoor, Kumbalam-Aroor, Konthuruthy-Nettoor and across Thevara Channel is in good progress. The project is scheduled for completion during 1984. The Railway Board have approved the extension of the Ernakulam-Alleppey line to Kayamkulam (length 43 kms.) during 1982-83 and sanctioned an urgency certificate for Rs. 140 lakhs. The project is estimated to cost Rs. 11.12 crores and is expected to be completed by 1985. Preliminary arrangements are on hand to take up the work. The new board gauge line between Ernakulam-Alleppey-Kayamkulam on completion will serve as an alternative broadgauge line between Ernakulam-Kottayam-Quilon section in addition to giving a fillip to the development of backward areas of Ernakulam and Alleppey districts.

7.26 Earth work and bridge works are in good progress in the doubling of 44 km. stretch between Palghat and Shoranur, estimated to cost over Rs. 8.5 crores. The new second line is targeted for opening to goods traffic in phases during 1982-83. With this, double line facility would be available in the entire stretch from Madras to Shoranur.

7.27 Doubling of Shoranur-Ernakulam Junction (107 km.) has been sanctioned in four phases at a total cost of Rs. 20.81 crores. Of this, the new second line between Ernakulam and Alwaye (20 km.) between Mullurcarai and Wadakkancheri and between Pudukad-Irinjalakuda (18 km.) have already been opened to traffic. The work on the doubling between Shoranur-Mullurcarai, Wadakkancheri-Mulakunnathukavu Trichur-Pudukad and Chalakudi-Angamali (44 km.) is progressing well. The second line between Shoranur and Mullurcarai excluding Shoranur-Bharathanuzha bridge portion has been

opened to goods traffic on 22-3-1982. The other sections are scheduled for commissioning to goods traffic in phases during 1982-83. On completion of these works, the inter-city route from Ernakulam to Madras would have double line facility except for three patches aggregating to 25 kms. Work on doubling of these sections has also been taken up.

7.28 Among other important works completed are a new broadgauge diesel shed providing facilities for maintenance of 20 diesel shunters at Ernakulam and the major portion (south wing) of the Administrative Office building, and staff quarters I, II and III at Poojapura. The existing station building at Kottayam has been remodelled and commissioned during October, 1981 at a cost of Rs. 12 lakhs. The station building at Chengannur has been remodelled and commissioned during March, 1981 at a cost of Rs. 14 lakhs. Works are in progress for developing additional facilities including a new station building at Ernakulam Town Station at a cost of Rs. 15 lakhs.

7.29 Regarding surveys it may be mentioned that updating engineering and traffic survey reports for a new broadgauge line between Kuttipuram and Trichur Via Guruvayur has been completed. The cost of the project for a length of 56.14 km. is estimated at Rs. 14 crores.

7.30 Considerable improvements have been brought out in passenger services in Kerala area. All the passenger trains on Trivandrum Division and on Shornur-Mangalore sections of Palghat Division in Kerala have been put on diesel traction. The Day Express between Cochin and Cannanore has been named as Kerala Express and extended towards Trivandrum and Mangalore to provide a fast day service between Trivandrum and Mangalore. It may be mentioned that this 16-coach vestibuled train with Pantry car is hauled by diesel traction providing an additional 1196 seats—1160 second class and 36 first class. The railway administration is also striving to reduce the incidence of accidents by adopting several preventive measures.

#### *Air Transport*

7.31 Air transport services in the State are operated from the two airports of Trivandrum and Cochin. The long felt need of the people of Malabar for an airport at Calicut has been recognised by the Central Government and the construction work for an aerodrome near Calicut has commenced recently.

7.32 It may be mentioned that Indian Airlines is one of the largest regional airlines in the World and it offers over 210 services daily. Among its daily domestic services include Trivandrum-Bombay airbus service and Trivandrum-Trichy/Madras boeing 737 service. Trivandrum-Cochin boeing service is operated on four days a week on Mondays, Wednesdays, Fridays and Sundays. Indian Airlines operate two international flights also from Trivandrum viz. Trivandrum-Colombo and Trivandrum-male. The former is operated twice a week and the latter four days a week. Air India has been operating direct flights between Trivandrum

and the Gulf daily since 1981. The places covered are Dubai, Abudhabi, Kuwait, Sharjah and Ras-al-Khaymah. The present capacity is 142 seats and 4 to 5 tonnes cargo capacity per flight. Despite the inadequate infrastructure facilities at the airport the Gulf services are very much in demand. In view of the heavy demand of traffic at Trivandrum airport there is urgent need to provide adequate terminal facilities to bring this airport to international standards. Development of Cochin airport to the required standards is also necessary. During 1981-82, a total of about 4.3 lakh passengers were carried from these two airports as compared to about 3.8 lakh passengers in the previous year. Data on passenger and freight traffic from Trivandrum and Cochin for the years 1980-81 and 1981-82 are presented in Appendix 7.11.

#### *Inland Navigation*

7.33 The total length of the navigable route in Kerala is about 1900 kms. The canals form about 46 per cent while the navigable rivers constitute about 54 per cent of the waterways. The main canal, the West Coast Canal, has a length of about 560 kms. This canal system interconnects all the minor ports with the major port of Cochin. The West Coast Canal has maximum traffic in the portion between Quilon and Cochin. The 83 km. long Vembanad Lake constitutes the centre of these inland waterways. A recent study (1979-80) conducted in the four districts of Quilon, Alleppey, Kottayam and Ernakulam reveals that despite severe competition from road transport the waterways in these districts carried as much as 12 million passengers and 1.3 million tonnes of cargo. This performance has to be judged taking into account the great many handicaps and neglect over the years of this mode and the inadequate basic infrastructure facilities. It is therefore, evident that this system is still playing a useful role in the transportation of goods and passengers. Four agencies namely the State Water Transport Department, the Public Works Department (Irrigation), the Kerala Inland Navigation Corporation and the Kerala State Road Transport Corporation are implementing plan schemes under water transport.

7.34 The Irrigation Department (PWD) is in charge of canal improvement works and proper maintenance of the canal system. The two central sector schemes spilled over from the Fourth Plan now under execution are (a) Champakara Canal and (b) Neendakara—Cheriazheekal Canal portion of the West Coast Canal. The proposal relating to Champakara Canal is to connect up Cochin Port with the industrial region at Ambalamughal by an improved waterway. The second scheme is to improve the portion of West Coast Canal from Neendakara—Cheriyazheekal to facilitate the plying of large mechanised vessels of deeper drafts.

7.35 During 1981-82 the State Water Transport Department operated boat services in 69 routes covering a gross route distance of 7490 km. The number of passengers carried on these services increased from about 99.9 lakhs in 1980-81 to about 101.7 lakhs in 1981-82. Out of the 73 boats owned

by the Department, 53 boats were in operation during the year. There was improvement both in the actual number of boats in operation and the number of boats owned. However nearly 38 per cent of the boats owned by the Department are over 20 years old. For the year 1981-82, the total revenue of the Department was about Rs. 104 lakhs against a total expenditure of about Rs. 137 lakhs. The earnings per passenger increased from 82 paise in 1980-81 to 102 paise in 1981-82. The increase in expenditure per passenger during the same period was from 112 paise to 135 paise. The salient features of the State Water Transport operation are indicated below:—

	1980-81	1981-82
Boats owned	69	73
Boats over 20 years	32	28
Boats in operation	48	56
Passengers carried (in lakhs)	99.9	101.7
Revenue receipts (Rs. lakhs)	82.8	103.8
Expenditure (Rs. lakhs)	112.0	137.4
Loss (Rs. lakhs)	29.2	33.6
No. of persons employed	985	1061

7.36 The Kerala State Road Transport Corporation possesses 11 boats for operating ferry services in the Cochin Harbour area of which 10 boats were in operation during the year 1981-82. The seating capacity of these ferry boats is 1374. About 106.5 lakhs passengers travelled during 1981-82. The Corporation operated ferry services in 8 routes during the period securing a revenue receipt of Rs. 34.77 lakhs as compared to Rs. 30.5 lakhs in 1980-81. The average earnings per passenger came to 33 paise while the same was 29 paise in the previous year. The proposal to hand over the ferry services to the Kerala Inland Navigation Corporation still remains to be implemented.

#### *Kerala Inland Navigation Corporation*

7.37 Kerala Inland Navigation Corporation set up in December 1975, entered the commercial field in August 1977. During 1981-82 the Corporation had 5 boats which carried a total of 12 lakh passengers along the following routes connecting the mainland and various islands located in the backwaters of Cochin.

1. Ernakulam ... Murukkumpadam
2. Do. ... Panambukada
3. Do. ... Ponnarimangalam
4. Do. ... Mundampally

7.38 Income derived from boat services during 1981-82 was Rs. 8.63 lakhs against Rs. 6.02 lakhs in the previous year. A workshop for the repair of boats and barges was commissioned during this period at Thevara. The Corporation purchased one inspection boat in March 1982. This is being hired out for sight seeing.

7.39 Regular cargo transportation was started only in 1980-81. There was substantial improvement in the operation of cargo services compared

to the previous year. The total income derived from this operation was Rs. 12.24 lakhs against Rs. 0.88 lakh in the previous year. Though this operation was started with three self propelled power barges, a fourth one—a second hand power barge—was purchased in February 1982. During the current year 76,517 tonnes of cargo was transported through waterways against 6,507 tonnes during 1980-81.

7.40 During the year ended 31st March 1982, the total income of the Corporation was Rs. 23.65 lakhs while the total expenditure was Rs. 19.58 lakhs. The surplus of Rs. 4.07 lakhs included provision for depreciation etc., at Rs. 3.43 lakhs.

#### *Ports and Harbours*

7.41 Kerala has a long coastline of about 580 kms. and along this coast there are at present a major port at Cochin, four intermediate ports at Vizhinjam, Neendakara, Alleppey and Calicut. Beypore and nine minor ports at Trivandrum, Quilon Kodungalloor, Ponnani, Badagara, Tellicherry, Cannanore, Azhikkal and Kasaragode. The significance of the minor and intermediate ports in the States' transport system has been gradually declining over the past two decades.

7.42 The working group recently constituted by the Government of India to examine and suggest promotional measures required for the development of export/import traffic through intermediate/minor ports of Kerala have recommended the development of a few selected ports like Kovalam/Vizhinjam, Neendakara, Alleppey, Beypore and Azhikkal. It may be mentioned that during 1981-82, 2.49 lakh tonnes of cargo was handled at the intermediate and minor ports of Kerala as against 1.9 lakh tonnes in 1980-81 (Appendix 7.13). During 1981-82 there was significant traffic only through the ports at Neendakara, Calicut and Azhikkal, Calicut port accounting for 66 per cent of the total. Twenty steamers having a tonnage of 95,191 tonnes called at the intermediate and minor ports of Kerala during 1981-82 as against 24 steamers having a tonnage of 68,820 tonnes in the previous year. (Appendix 7.14). It is worth mentioning that Calicut port accounted for 70 per cent of the steamers. Sailing vessels numbering 581 also called at the intermediate and minor ports during 1981-82, as against 582 in the previous year. During 1981-82, vessels called only at the ports of Neendakara, Calicut, Ponnani, Azhikkal and Kasaragode. The revenue earned during the current year from the various ports in the State was Rs. 16.59 lakhs compared to Rs. 15.81 lakhs in 1980-81.

7.43 The State Hydrographic Survey Wing conducts hydrographic surveys and handles dredging operations. Apart from the headquarters' office at Trivandrum, there are two field unit offices at Quilon and Beypore. The field staff is engaged in survey work including investigation for the preparation of the requisite data for formulating development schemes in respect of various minor ports, fishing harbours and fish landing centres. Hydrographic surveys were undertaken by the wing at Beypore, Ponnani, Kasaragode, Neendakara, Azhikkal and Thalai during 1982.

7.44 The dredging unit undertakes dredging operations at minor ports like Neendakara, Beypore, Ponnani etc. At present the unit has a fleet of dredgers viz., a grab dredger, a 12" cutter suction dredger, "Neendakara" and a 22" cutter suction dredger, 'Mëena'. In addition the unit possesses tug and an auxiliary craft called "Dredge Tender". During 1982, dredging was carried out at Beypore, zhikkal, Ponnani and Neendakara. The total output for the year was 212,160 cum. The unit had also undertaken some private dredging on realisation of cost in ports like Neendakara and Beypore and had thus earned revenue to Government. It has been decided to take up more such operations without detriment to departmental work. The question of employing additional shift operations of the dredgers and making optimum use of the vessel is under active consideration.

7.45 The Harbour Engineering Department is undertaking the various plan schemes of the State Port and Fisheries Departments. This Department is in charge of investigation, design and construction of fishing harbours, mini-fishing harbours, fish landing centres, cargo harbours and capital repairs and maintenance of all structures of the cargo and fishing harbours.

7.46 In respect of the harbour at Beypore, works such as providing side protection including ramp for hauling up of boats in the upstream side of the wharf and repairs to the wharf and auction hall at Beypore have been completed. The preliminary works connected with the construction of breakwater at Beypore for the cargo harbour were also completed. Special repairs including providing fenders to the wharf at Baliapattam was carried out. Electrification of service station at Baliapattam was another work done during the year.

7.47 Regarding the development of Vizhinjam Harbour, the extension of seaward breakwater was completed and the construction of leeward breakwater was completed upto 260 metres out of which 200 metres was completed in all respects with armour blocks etc. Construction of inner breakwater was the major work completed during 1981-82 in respect of the Neendakara Fishing Harbour Project. The preliminary works such as black topping the road over breakwater, construction of approach road etc., were commenced at the Neendakara Cargo Harbour. All the necessary capital repairs for the piers at Trivandrum, Alleppey and Calicut have also been undertaken.

#### *Cochin Port*

7.48 During 1981-82 the general operating conditions at the port were satisfactory. During the year 918 ships called at the port as against 788 ships in the previous year, an increase of 16.3 per cent. It may be noted that there was substantial increase in the number of tankers, conventional general cargo ships and container ships which called at the port during the year over the preceding year while the number of Ro-Ro ships and fertilizer ships showed a decline. The number of foreign going ships recorded an increase of 13.5 per cent over the previous year while the number

of coastal ships showed an increase of 29.1 per cent. The average N. R. T., length and draft of ships called at the port showed a decline during the year as a result of a significantly larger number of conventional general cargo ships calling at the port. A category-wise analysis of ships that called at the port is given in Appendix 7.15. The average pre-berthing detention time and turn round time recorded a decline to 0.96 days and 4.12 days during the year from 1.37 days and 5.17 days respectively in 1980-81.

7.49 The total traffic handled during 1981-82 reached the record level of 55.01 lakhs tonnes which was 0.6 per cent higher than the previous record of 54.70 lakhs tonnes handled in 1978-79 and 5.1 per cent more than the traffic of 52.33 lakhs tonnes handled during 1980-81. Bulk cargo traffic recorded an increase of only 2.9 per cent while the break bulk general cargo traffic increased by 31.4 per cent. The volume of foreign and coastal traffic handled also recorded an increase of 4.7 per cent and 6.3 per cent respectively during the year. Container traffic recorded an appreciable increase of 6.5 per cent, from 1.38 lakhs tonnes in 1980-81 to 1.47 lakhs tonnes in 1981-82. The total number of containers handled increased by about 43 per cent. There were 114 sailings of fully containerised ships from the port during the year as against 64 sailings in the preceding year. During 1981-82 both coastal and foreign traffic handled recorded an increase over the previous year by 6.3 per cent and 4.7 per cent respectively. The total volume of imports during the year was 42.03 lakhs tonnes, an increase of 2.2 per cent from the previous year. However there was a decline in coastal imports, mainly due to fall in petroleum cargo. The increase in foreign imports was due to higher imports of foreign petroleum cargo and foodgrains. The total tonnage of exports handled during the year also recorded an increase by 15.8 per cent to 12.98 lakhs tonnes from 11.21 lakhs tonnes in 1980-81. Increase in coastal exports was due to higher coastal exports of POL products and increase in foreign exports was due to higher exports of commodities such as coir products, coffee and marine products. The total value of trade handled at the port during the year recorded an increase by 11.9 per cent to Rs. 1501.01 crores from Rs. 1340.75 crores in the previous year. However, the adverse balance of trade recorded an increase to Rs. 276.01 crores during the year 1981-82 from Rs. 248.27 crores in 1980-81.

7.50 The gross income of the port during the current year was Rs. 2055.25 lakhs compared to Rs. 1909.40 lakhs in the previous year. The gross expenditure in 1981-82 was Rs. 2038.83 lakhs as against Rs. 2015.26 lakhs in 1980-81. The account shows a surplus of 16.42 lakhs as against a deficit of Rs. 105.86 lakhs in the preceding year. While operating income increased by Rs. 202.66 lakhs and the operating expenditure by Rs. 272.19 lakhs during 1981-82, the operating surplus recorded a decrease from Rs. 336.61 lakhs in the previous year to Rs. 267.08 lakhs during 1981-82. Consequently the operating ratio registered an increase to 85.1 per cent during the year from 78.8 per cent during 1980-81.

7.51 The capital expenditure (plan and non-plan) during 1981-82 as per accounts amounted to Rs. 1384.04 lakhs. Rs. 1175 lakhs was sanctioned during the financial year as loan by the Government. The balance was met from internal resources. The total capital debt stood at Rs. 3454.86 lakhs as on 31-3-1982. A sum of Rs. 52.35 lakhs was received from Government during the year towards grant-in-aid work of fisheries harbour. The value of the capital assets of the Port Trust at original cost including fisheries harbour which stood at Rs. 3764.38 lakhs as on 31-3-1981 increased to Rs. 4814.82 lakhs as on 31-3-1982.

## Tourism

### *Kerala Tourism Development Corporation*

7.52 The Corporation is mainly engaged in the establishment and running of hostels which form one of the basic infrastructures for the development of tourism. Tourism reception centres and conducted tours are also run by the Corporation. The major schemes for development undertaken by the Kerala Tourism Development Corporation are listed out below:

#### (i) *Cochin Project*

7.53 The scheme is for the construction of a multistoried hotel in the Marine Drive at Cochin. The estimated cost of the project is Rs. 156 lakhs. The project has two blocks, a hotel block and a shopping block. The shopping block has already been commissioned. The skeleton for the hotel project has also been completed.

#### (ii) *Kovalam Project*

7.54 The scheme is for the construction of a 50 roomed hotel at Kovalam which consists of 10 cottages and 40 double rooms with a conference hall, a drive-in-restaurant and a restaurant to the main hotel block. The work has been completed with the commissioning of Hotel Samudra at Kovalam.

#### (iii) *Kumarakom Project*

7.55 The scheme is for the development of the Baker's Estate at Kumarakom into a tourist complex. Architectural design has been prepared for the scheme. The land was purchased and necessary improvements to the existing bungalow have been made and it is now being run as a small hotel.

#### (iv) *Cannanore Project*

7.56 The project is intended for the construction of a middle class hotel at Cannanore. Land for the construction of the same has already been transferred by Government to the Corporation. The architectural designs and drawings have been prepared. The compound wall and a building to house the Revenue Inspector's office have also been completed.

#### (v) *Thampanoor Project*

7.57 The project envisages the construction of a middle class hotel at Thampanoor, Trivandrum. The work is in progress.

#### (vi) *Bolghatty Project*

7.58 The Bolghatty Palace with its premises was taken over by the Corporation in 1976 for developing the area into a tourist complex. Necessary improvements to the existing bungalow was made and it is being operated as a hotel. The honeymoon cottages and two tourist cottages are nearing completion.

#### (vii) *Floating Restaurant at Veli*

7.59 The scheme envisages the establishment of a Floating Restaurant at Veli lake. The plan for the scheme has been prepared and soil test has been done.

#### (viii) *Purchase of Boats, Coaches etc.*

7.60 The Corporation has decided to strengthen its Transport Division with more boats, coaches, cars etc. The Corporation has purchased four Layland chassis for constructing luxury coaches. Two air conditioned coaches and three mini coaches are under construction.

#### (ix) *Improvement of Hotel Units*

7.61 Improvements of units such as the Mascot Hotel, hotel units at Thekkady and Malampuzha are also carried out by the Corporation. The construction of a health club at Mascot Hotel has been completed. The construction of a swimming pool is in progress.

#### (x) *Publicity*

7.62 The Corporation has launched advertisement campaign for marketing Tourism through advertisement in newspapers, magazines, radios etc. Steps have also been taken for bringing tourist brochures, picture post cards, tourist maps etc.

7.63 Kerala offers unique opportunities for the development of tourism. The extensive backwaters of Kerala could be profitably exploited for this purpose. An integrated programme of development should be drawn up and adequate investments made in the coming years to exploit the full potential of tourism industry in the State.

## Communications

7.64 Kerala has made rapid strides in the sphere of communication facilities. Kerala has at present 23 postal divisions, 3 railway mail service divisions, 2 postal stores depot units, one mail motor service division unit and one central stamp depot at Ernakulam. As on 1-4-1982, 4634 post offices were functioning in the State, consisting of 51 head post offices, 1306 sub offices, 793 extra departmental sub offices, and 2484 branch offices. During 1981-82, fifty-eight new post offices were opened. The number of post offices has increased from 4018 in April 1974 to 4634 in April 1982.

7.65 The details relating to expansion of postal net work since 1974 is furnished in Appendix 7.18. The average area served by a post office is 8.39 sq. km. against the all India figure of 23.9 sq.km. The population served by a post office on an average is 5482, which is higher as compared to the all India figure of 4000 persons per post office (See Appendix 7.19). Division-wise data relating to post offices in the State are furnished in Appendix 7.20.

7.66 In the sphere of communication facilities too, Kerala's position is favourable. The number of telephone exchanges in Kerala increased from 463 in April 1981 to 491 in April 1982 with a total equipped capacity of 108960 lines (See Appendix 7.21). The telephone system was expanded by opening 28 new exchanges and expanding the capacity of 110 exchanges. There were 2410 public call offices in the State as on April 1982. In spite of the rapid growth of telecommunications, the backlog of pending connections is also increasing simultaneously. There were 28,479 pending connections as on April 1982.

7.67 The formation of the Calicut Telephone District on 14-9-1981 is a milestone in the development of telecommunications in Kerala. All the district headquarters of Kerala State have been connected to the State capital either by STD or by 'no delay' service. Kerala was the first State to achieve this. Kerala State has a telephone exchange at every 8.5 kms. on an average distance. The

density of telephone in Kerala State is 3.12 per sq. km. compared to 0.85 of the whole country.

7.68 The circle is divided into two areas, the North area under charge of the Director of Telecom (N) with headquarters at Trichur and the South area under charge of the Director of Telecom (S) with headquarters at Trivandrum. The circle is further divided into 12 engineering divisions, 2 phones divisions and three traffic divisions. Three new engineering divisions were formed during the year with headquarters at Tiruvalla, Thodupuzha and Kasaragod. There is a Regional Telecom Training Centre functioning at Trivandrum. There is a circle Telecom Training Centre in the circle at Trivandrum. Three new Engineering Sub Divisions were formed with headquarters at Kalpetta, Shertallai and Idukki during June, 1981.

7.69 Seventeen wireless stations were functioning in the circle as on 31-3-1982. Radio link was provided to Sabarimala and Pamba. Seasonal telephone exchanges connecting them to Tiruvalla Exchange during the Makaravilakku festival to facilitate trunk calls to important towns in the State were also commissioned. Kavarathy in Lakshadweep Island was connected by domestic satellite link to mainland on 15-11-1980. Even though Kerala has made much headway in the field of communication net work, the high literacy along with the peculiar settlement pattern of the State demand further development of the system.

## CHAPTER 8

### EXPORT IMPORT TRADE

#### *India's Foreign Trade*

India's trade deficit in recent years has been growing due to rise in imports and slow growth of exports. The tardy growth rate in export is attributed to both external and internal factors. The recessionary trend in the global economy, protectionist policy followed by some developed economies, lower unit value of Indian exports in the world market etc., adversely affect Indian exports. Rising prices, increased domestic demand, shortage of essential inputs such as power, coal, and other materials, industrial unrest, transport bottlenecks etc., have indirect adverse impact on our export performance.

8.2 Based on provisional figures, India's total exports during 1981-82 are valued at Rs. 7,781 crores and imports at Rs. 13,560 crores. Trade deficit came down marginally from Rs. 5813 crores in 1980-81 to Rs. 5779 crores in 1981-82, reversing the fast rising trend in trade deficit during the preceding four years. Export performance in 1981-82 showed an upward trend due to improved domestic climate, increased industrial and agricultural output and better infrastructure facilities. Import bill in 1981-82 stood high, largely due to increased oil imports. Data regarding India's foreign trade for the last five years are given in Table 8.1.

TABLE 8.1  
*India's Foreign Trade*

Year	Export (Rs. crores)	Import (Rs. crores)	Surplus/ Deficit (Rs. crores)
(1)	(2)	(3)	(4)
1977-78	5404.26	6025.29	(—) 621.03
1978-79	5726.30	6814.30	(—) 1088.00
1979-80	5998.64	8231.32	(—) 2232.68
1980-81	6711.00	12524.00	(—) 5813.00
1981-82*	7781.00	13560.00	(—) 5779.00

\* Provisional

Source: RBI Bulletin, 1982 June.

ports outside Kerala as well. Also many items produced in other States are exported through Cochin port. Hence the export data supplied by the Commodity Boards may not tally with the Cochin Port Trust data in respect of some commodities.

8.4 The exports from Kerala consist mainly of traditional commodities like pepper, cashew kernels, tea, coffee, ginger, marine products, turmeric, cardamom, coir products etc. The quantity as well as value of exports from Kerala have been exhibiting a downward trend in recent years. The protectionist policy now being followed by some developed countries, sluggish demand in foreign markets and competition from other countries are the main reasons cited for the downward trend in Kerala's exports. The value of foreign exports through Cochin Port which stood at Rs. 511 crores in 1980-81 increased to Rs. 574 crores in 1981-82. Of the total value of exports through Cochin Port in 1981-82, cashew kernels accounted for nearly 24 per cent. Sea foods and tea constituted 21.53 per cent and 10.70 per cent respectively. Table 8.2 shows the item-wise value of major exports through Cochin Port.

TABLE 8.2  
*Item-wise Value of Exports*

Item	Year	
	1980-81 (Rs. crores)	1981-82 (Rs. crores)
(1)	(2)	(3)
1. Cashew Kernels	110.70	140.39
2. Sea Foods	89.62	123.66
3. Tea	79.74	61.46
4. Coffee	43.27	50.79
5. Pepper	36.97	27.06
6. Coir Products	25.74	27.02
7. Cardamom	6.50	7.91
8. Ginger	2.44	2.91
9. Miscellaneous	116.19	132.90
Total	511.17	574.10

8.5 The total volume of exports through Cochin Port in 1981-82 was 12.98 lakh tonnes as against 11.21 lakh tonnes in 1980-81. Of the total quantity of exports in 1981-82, coastal exports constituted 9.85 lakh tonnes. Foreign exports in 1981-82 increased by only 23,000



tonnes compared to the previous year. On the other hand, coastal exports increased by 54,000 tonnes during the above period. Increase in coastal exports was due to the larger coastal export of POL products. Increase in foreign exports was due to the rise in the export of commodities like coir products, coffee and marine products. Data relating to Kerala's total foreign and coastal exports in 1981-82 are given in Table 8.3.

TABLE 8.3  
Trends in Volume of Exports Through Cochin Port  
(Quantity-Lakh Tonnes)

Year	Foreign	Coastal	Total
(1)	(2)	(3)	(4)
1979-80	4.18	6.90	11.08
1980-81	2.90	8.31	11.21
1981-82	3.13	9.85	12.98

8.6 POL constituted 75 per cent of total exports through Cochin Port in 1981-82 as against 73 per cent in 1980-81. Export of tea, sea foods, and coffee constituted 3.7 per cent, 3.3 per cent and 3 per cent respectively. The share of cashew kernels, coir products, spices etc., in the total exports through Cochin Port came down in 1981-82 compared to the previous year. Table 8.4 shows the item-wise export of commodities through Cochin Port.

TABLE 8.4  
Commodity-wise Exports Through Cochin Port  
(Quantity-Tonnes)

Commodity	Year			
	1980-81	% to Total	1981-82	% to Total
(1)	(2)	(3)	(4)	(5)
1. POL	822986	73.4	976221	75.2
2. Tea	61242	5.5	48165	3.7
3. Cashew Kernels	29365	2.6	25930	2.0
4. Sea Foods	35507	3.2	42546	3.3
5. Coir Products	29387	2.6	31361	2.4
6. Spices	32860	2.9	27063	2.1
7. Coffee	20839	1.9	38544	3.0
8. Miscellaneous	88956	7.9	108038	8.3
Total	1121142	100.00	1297868	100.00

Source: Cochin Port Trust Administration.

8.7 The total export-import trade through Cochin Port in 1981-82 was worth Rs. 1501 crores against Rs. 1341 crores in 1980-81, registering 11.9 per cent increase. It is to be noted that while foreign exports increased by 12.3 per cent during the year under review, foreign imports increased only by 11.9 per cent. Table 8.5 shows details regarding the export and import trade effected through Cochin Port during the last two years.

TABLE 8.5  
Value of Export and Import Through Cochin Port

Item	1980-81 (Rs. crores)	1981-82 (Rs. crores)
Foreign Exports	511.17	574.14
Coastal Exports	43.03	46.70
Total Exports	554.20	620.89
Foreign Imports	759.44	850.15
Coastal Imports	27.11	30.02
Total Imports	786.55	880.17
Total Trade	1340.75	1501.01

Source: Cochin Port Trust Administration.

### Spices

8.8 Spices exported from India consist of pepper, cardamom, ginger, turmeric, etc. In 1980-81 the export value of spices from India declined to Rs. 104.78 crores from the previous year's level of Rs. 155.08 crores. There was a further decline to Rs. 93.25 crores in 1981-82. Actual export earnings in 1981-82 compared to previous year decreased by Rs. 11.53 crores mainly due to a quantitative decline in the export of pepper, chillies and ginger. There was also a fall in the unit value of many Indian spices. For instance, the unit value of pepper came down from Rs. 14.54 per kg. in 1980-81 to Rs. 13.58 per kg. in 1981-82. Similarly, the export value of cardamom fell from Rs. 147.61 per kg. to Rs. 130.39 per kg.

8.9 Important spices produced in Kerala are pepper, cardamom, turmeric, ginger, etc. Nearly 95 per cent of pepper, 70 per cent of ginger and 85 per cent of cardamom exported from India originate from Kerala. During 1981-82, foreign exchange earnings from the export of spices from Kerala amounted to Rs. 43.42 crores. This formed nearly 47 per cent of India's export earnings from spices. In the previous year, the corresponding figures were Rs. 50.30 crores and 48 per cent. In terms of quantity, spices export from Kerala through Cochin Port stood at 27,804 tonnes in 1981-82 as against 34,259 tonnes in 1980-81. Details regarding the export of spices from India are given in Table 8.6. The unit value of a few spices like cardamom, ginger, turmeric, curry powder, etc., came down in 1981-82.

TABLE 8.6  
Export of Spices from India

Item	Year	
	1981-82 Value (Rs. Crores)	1980-81 Value (Rs. Crores)
(1)	(2)	(3)
1. Pepper	27.98	36.84
2. Cardamom	31.31	34.82
3. Chillies	4.21	5.01
4. Ginger	3.95	2.92
5. Turmeric	5.17	6.03
6. Curry Powder	2.00	2.17
7. Others	18.63	16.08
Total	93.25	104.78

Source: Spices Export Promotion Council.

### Cardamom

8.10 Kerala's share in India's total cardamom exports is significantly high being nearly 86 per cent in 1980-81 and 85 per cent in 1981-82. India exported 2321 tonnes of cardamom valued at Rs. 30.17 crores in 1981-82 compared to 2345 tonnes valued at Rs. 34.75 crores in 1980-81. Both in quantity and in value cardamom export in 1981-82 recorded a slight decline compared to the previous year.

8.11 The quantity and value of cardamom export through Cochin Port in 1981-82 also recorded a slight decline from 2015 tonnes valued at Rs. 30.34 crores in 1980-81 to 1980 tonnes worth Rs. 26.17 crores in 1981-82. While the quantity of cardamom exported declined by 1.74 per cent the export earnings decreased by 14.07 per cent. Decline in quantity of exports combined with a fall in the unit value of cardamom in the world market contributed to the fall in the export earnings in 1981-82. On an average the unit value of cardamom in the export market declined by Rs. 17.21 kg. in 1981-82. The unit value of cardamom which was Rs. 147.60 per kg. in 1980-81 came down to Rs. 130.39 per kg. in 1981-82. The Table 8.7 shows the quantity and value of cardamom export from Kerala/India.

TABLE 8.7  
Export of Cardamom from India/Kerala

Year	Kerala		India	
	Quantity (Tonnes)	Value (Rs. Crores)	Quantity (Tonnes)	Value (Rs. Crores)
(1)	(2)	(3)	(4)	(5)
1978-79	2536	51.81	2876	58.35
1979-80	2286	42.47	2636	48.56
1980-81	2015	30.34	2345	34.75
1981-82	1980	26.17	2321	30.17

Source: Cardamom Board.

### Ginger

8.12 Export of ginger from India in terms of quantity showed a decline in 1981-82 compared to the previous year. In 1981-82 India exported 4717 tonnes of ginger as against 5550 tonnes in 1980-81. Despite a decline in quantity, the value of export earnings increased from Rs. 292 lakhs to Rs. 395 lakhs during the period due to a rise in the unit value of ginger from Rs. 5.27 per kg. in 1980-81 to Rs. 8.38 per kg. in 1981-82. Between 1978-79 and 1981-82 the quantity of ginger exported from India in terms of quantity declined considerably from 14,514 tonnes to 4,717 tonnes.

8.13 Export of ginger through Cochin Port was 3448 tonnes valued at Rs. 286 lakhs in 1981-82, as against 4598 tonnes worth Rs. 238 lakhs in 1980-81. Though the quantity of ginger exported shows a decline, its export earnings indicate an increase in the year under review. The Table 8.8 shows the quantity and value of ginger export from India and Kerala.

TABLE 8.8  
Export of Ginger from India and Kerala

Year	India		Kerala	
	Quantity (Tonnes)	Value (Rs. Lakhs)	Quantity (Tonnes)	Value (Rs. Lakhs)
(1)	(2)	(3)	(4)	(5)
1979-80	11485.98	726.96	7186.45	446.42
1980-81	5550.24	292.31	4597.64	238.10
1981-82	4717.80	395.22	3447.66	286.41

Source: Spices Export Promotion Council.

### Turmeric

8.14 While the quantity of turmeric exported from India showed an increase, the export value registered a decline in 1981-82, compared to the previous year. In 1981-82, India exported 11,986 tonnes of turmeric as against 11,438 tonnes in 1980-81. The corresponding export earnings were Rs. 517 lakhs and Rs. 604 lakhs respectively. The unit value of turmeric in 1981-82 declined and this accounted for the decline in export earnings. In 1980-81 the unit value of turmeric was Rs. 5.28 per kg. But this came down to Rs. 4.32 per kg. in 1981-82.

8.15 Export of turmeric from Kerala was 2059 tonnes valued at Rs. 96 lakhs in 1981-82, as against 2316 tonnes valued at Rs. 129 lakhs in 1980-81. This shows that export of turmeric suffered a set-back in 1981-82 in terms of both quantity and value. Table 8.9 shows the quantity and value of turmeric exported from India/Kerala.

tonnes compared to the previous year. On the other hand, coastal exports increased by 54,000 tonnes during the above period. Increase in coastal exports was due to the larger coastal export of POL products. Increase in foreign exports was due to the rise in the export of commodities like coir products, coffee and marine products. Data relating to Kerala's total foreign and coastal exports in 1981-82 are given in Table 8.3.

TABLE 8.3

Trends in Volume of Exports Through Cochin Port

(Quantity-Lakh Tonnes)

Year	Foreign	Coastal	Total
(1)	(2)	(3)	(4)
1979-80	4.18	6.90	11.08
1980-81	2.90	8.31	11.21
1981-82	3.13	9.85	12.98

8.6 POL constituted 75 per cent of total exports through Cochin Port in 1981-82 as against 73 per cent in 1980-81. Export of tea, sea foods, and coffee constituted 3.7 per cent, 3.3 per cent and 3 per cent respectively. The share of cashew kernels, coir products, spices etc., in the total exports through Cochin Port came down in 1981-82 compared to the previous year. Table 8.4 shows the item-wise export of commodities through Cochin Port.

TABLE 8.4

Commodity-wise Exports Through Cochin Port

(Quantity-Tonnes)

Commodity	Year			
	1980-81	% to Total	1981-82	% to Total
(1)	(2)	(3)	(4)	(5)
1. POL	822986	73.4	976221	75.2
2. Tea	61242	5.5	48165	3.7
3. Cashew Kernels	29365	2.6	25930	2.0
4. Sea Foods	35507	3.2	42546	3.3
5. Coir Products	29387	2.6	31361	2.4
6. Spices	32860	2.9	27063	2.1
7. Coffee	20839	1.9	38544	3.0
8. Miscellaneous	88956	7.9	108038	8.3
Total	1121142	100.00	1297868	100.00

Source: Cochin Port Trust Administration.

8.7 The total export-import trade through Cochin Port in 1981-82 was worth Rs. 1501 crores against Rs. 1341 crores in 1980-81, registering 11.9 per cent increase. It is to be noted that while foreign exports increased by 12.3 per cent during the year under review, foreign imports increased only by 11.9 per cent. Table 8.5 shows details regarding the export and import trade effected through Cochin Port during the last two years.

TABLE 8.5

Value of Export and Import Through Cochin Port

Item	1980-81 (Rs. crores)	1981-82 (Rs. crores)
Foreign Exports	511.17	574.14
Coastal Exports	43.03	46.70
Total Exports	554.20	620.80
Foreign Imports	759.44	850.15
Coastal Imports	27.11	30.02
Total Imports	786.55	880.17
Total Trade	1340.75	1501.01

Source: Cochin Port Trust Administration.

### Spices

8.8 Spices exported from India consist of pepper, cardamom, ginger, turmeric, etc. In 1980-81 the export value of spices from India declined to Rs. 104.78 crores from the previous year's level of Rs. 155.08 crores. There was a further decline to Rs. 93.25 crores in 1981-82. Actual export earnings in 1981-82 compared to previous year decreased by Rs. 11.53 crores, mainly due to a quantitative decline in the export of pepper, chillies and ginger. There was also a fall in the unit value of many Indian spices. For instance, the unit value of pepper came down from Rs. 14.54 per kg. in 1980-81 to Rs. 13.58 per kg. in 1981-82. Similarly, the export value of cardamom fell from Rs. 147.61 per kg. to Rs. 130.39 per kg.

8.9 Important spices produced in Kerala are pepper, cardamom, turmeric, ginger, etc. Nearly 95 per cent of pepper, 70 per cent of ginger and 85 per cent of cardamom exported from India originate from Kerala. During 1981-82, foreign exchange earnings from the export of spices from Kerala amounted to Rs. 43.42 crores. This formed nearly 47 per cent of India's export earnings from spices. In the previous year, the corresponding figures were Rs. 50.30 crores and 48 per cent. In terms of quantity, spices export from Kerala through Cochin Port stood at 27,804 tonnes in 1981-82 as against 34,259 tonnes in 1980-81. Details regarding the export of spices from India are given in Table 8.6. The unit value of a few spices like cardamom, ginger, turmeric, curry powder, etc., came down in 1981-82.

TABLE 8.6  
Export of Spices from India

Item	Year	
	1981-82 Value (Rs. Crores)	1980-81 Value (Rs. Crores)
(1)	(2)	(3)
1. Pepper	27.98	36.84
2. Cardamom	31.31	34.82
3. Chillies	4.21	5.01
4. Ginger	3.95	2.92
5. Turmeric	5.17	6.03
6. Curry Powder	2.00	2.17
7. Others	18.63	16.08
Total	93.25	104.78

Source: Spices Export Promotion Council.

### Cardamom

8.10 Kerala's share in India's total cardamom exports is significantly high being nearly 86 per cent in 1980-81 and 85 per cent in 1981-82. India exported 2321 tonnes of cardamom valued at Rs. 30.17 crores in 1981-82 compared to 2345 tonnes valued at Rs. 34.75 crores in 1980-81. Both in quantity and in value cardamom export in 1981-82 recorded a slight decline compared to the previous year.

8.11 The quantity and value of cardamom export through Cochin Port in 1981-82 also recorded a slight decline from 2015 tonnes valued at Rs. 30.34 crores in 1980-81 to 1980 tonnes worth Rs. 26.17 crores in 1981-82. While the quantity of cardamom exported declined by 1.74 per cent the export earnings decreased by 14.07 per cent. Decline in quantity of exports combined with a fall in the unit value of cardamom in the world market contributed to the fall in the export earnings in 1981-82. On an average the unit value of cardamom in the export market declined by Rs. 17.21 kg. in 1981-82. The unit value of cardamom which was Rs. 147.60 per kg. in 1980-81 came down to Rs. 130.39 per kg. in 1981-82. The Table 8.7 shows the quantity and value of cardamom export from Kerala/India.

TABLE 8.7  
Export of Cardamom from India/Kerala

Year	Kerala		India	
	Quantity (Tonnes)	Value (Rs. Crores)	Quantity (Tonnes)	Value (Rs. Crores)
(1)	(2)	(3)	(4)	(5)
1978-79	2536	51.81	2876	58.35
1979-80	2286	42.47	2636	48.56
1980-81	2015	30.34	2345	34.75
1981-82	1980	26.17	2321	30.17

Source: Cardamom Board.

### Ginger

8.12 Export of ginger from India in terms of quantity showed a decline in 1981-82 compared to the previous year. In 1981-82 India exported 4717 tonnes of ginger as against 5550 tonnes in 1980-81. Despite a decline in quantity, the value of export earnings increased from Rs. 292 lakhs to Rs. 395 lakhs during the period due to a rise in the unit value of ginger from Rs. 5.27 per kg. in 1980-81 to Rs. 8.38 per kg. in 1981-82. Between 1978-79 and 1981-82 the quantity of ginger exported from India in terms of quantity declined considerably from 14,514 tonnes to 4,717 tonnes.

8.13 Export of ginger through Cochin Port was 3448 tonnes valued at Rs. 286 lakhs in 1981-82, as against 4598 tonnes worth Rs. 238 lakhs in 1980-81. Though the quantity of ginger exported shows a decline, its export earnings indicate an increase in the year under review. The Table 8.8 shows the quantity and value of ginger export from India and Kerala.

TABLE 8.8  
Export of Ginger from India and Kerala

Year	India		Kerala	
	Quantity (Tonnes)	Value (Rs. Lakhs)	Quantity (Tonnes)	Value (Rs. Lakhs)
(1)	(2)	(3)	(4)	(5)
1979-80	11485.98	726.96	7186.45	446.42
1980-81	5550.24	292.31	4597.64	238.10
1981-82	4717.80	395.22	3447.66	286.41

Source: Spices Export Promotion Council.

### Turmeric

8.14 While the quantity of turmeric exported from India showed an increase, the export value registered a decline in 1981-82, compared to the previous year. In 1981-82, India exported 11,986 tonnes of turmeric as against 11,438 tonnes in 1980-81. The corresponding export earnings were Rs. 517 lakhs and Rs. 604 lakhs respectively. The unit value of turmeric in 1981-82 declined and this accounted for the decline in export earnings. In 1980-81 the unit value of turmeric was Rs. 5.28 per kg. But this came down to Rs. 4.32 per kg. in 1981-82.

8.15 Export of turmeric from Kerala was 2059 tonnes valued at Rs. 96 lakhs in 1981-82, as against 2316 tonnes valued at Rs. 129 lakhs in 1980-81. This shows that export of turmeric suffered a set-back in 1981-82 in terms of both quantity and value. Table 8.9 shows the quantity and value of turmeric exported from India/Kerala.

TABLE 8.9  
Export of Turmeric from India/Kerala

Year	India		Kerala	
	Quantity (Tonnes)	Value (Rs. Lakhs)	Quantity (Tonnes)	Value (Rs. Lakhs)
(1)	(2)	(3)	(4)	(5)
1979-80	26609.84	1980.61	3050.1	252.72
1980-81	11438.36	603.93	2315.96	129.25
1981-82	11985.91	517.43	2058.70	96.00

Source: Spices Export Promotion Council.

### Pepper

8.16 Kerala State holds a near monopoly in pepper cultivation in India. Nearly 95 per cent of the quantity of pepper produced in India comes from Kerala. Of India's total pepper export of 20,008 tonnes valued at Rs. 2798 lakhs in 1981-82, Kerala's share was 20,075 tonnes valued at Rs. 2714 lakhs. In terms of export value, Kerala's share in all India export was 97 per cent in 1981-82 as against 96 per cent in 1980-81. In 1980-81, India exported 25,337 tonnes of pepper valued at Rs. 3684 lakhs. The quantity and value of pepper export from Kerala in 1980-81 were 24,377 tonnes and Rs. 3240 lakhs respectively. The unit value of pepper in the world market in recent years declined marginally and consequently the aggregate export earnings also decreased. In 1979-80, the unit value of pepper was Rs. 16.04 per kg. But the unit value fell to Rs. 14.55 per kg. in 1980-81 and again to Rs. 13.58 per kg. in 1981-82. The quantity and value of pepper exported from India and Kerala during the last three years are given in Table 8.10.

TABLE 8.10  
Export of Pepper from India/Kerala

Year	India		Kerala	
	Quantity (Tonnes)	Value (Rs. Lakhs)	Quantity (Tonnes)	Value (Rs. Lakhs)
(1)	(2)	(3)	(4)	(5)
1979-80	20898.45	3352.24	20685.81	3239.97
1980-81	25336.80	3684.38	24377.63	3532.20
1981-82	20607.90	2798.37	20074.63	2713.83

Source: Spices Export Promotion Council.

8.17 Other spices exported from Kerala include chillies, curry powder, cumin seed, oils of spices etc. The export of almost all the spices showed a decrease during the year under review. The decline in the unit value of spices exported into the world market contributed significantly to the decrease in total export earnings from spices in 1981-82. Table 8.11 shows the export value of spices from Kerala during the last two years.

TABLE 8.11  
Export of Spices from Kerala/Cochin Port

Item	1980-81	1981-82
	(Rs. Lakhs)	(Rs. Lakhs)
(1)	(2)	(3)
1. Pepper	3532.20	2713.83
2. Cardamom	666.51	792.33
3. Chillies	101.30	85.85
4. Ginger	238.00	286.41
5. Turmeric	129.25	96.00
6. Curry Powder	94.70	64.19
7. Others	269.24	303.38
Total	5031.20	4341.99

Source: Spices Export Promotion Council.

### Tea

8.18 In 1981-82, the export of tea from Cochin Port was 48165 tonnes valued at Rs. 61.46 crores against an export of 61242 tonnes valued at Rs. 79.74 crores in 1980-81. The quantity and value of tea export therefore recorded a decline during the year under review. The total tonnage of export from the Cochin Port in 1981-82 was 1297868 tonnes valued at Rs. 574.10 crores. Of this export of tea constituted 48165 tonnes (3.7 per cent) valued at Rs. 61.46 crores. The major portion of the tea exported from Cochin Port goes to countries like United Kingdom, Union of Soviet Socialist Republic and United States of America. Details regarding the export of tea from Cochin Port is given in the Table 8.12.

TABLE 8.12  
Export of Tea from Kerala (Cochin Port)

Year	Quantity (Tonnes)	Value (Rs. Crores)
(1)	(2)	(3)
1979-80	67289	83.28
1980-81	61242	79.74
1981-82	48165	61.46

Source: Administration Report, Cochin Port.

### Coffee

8.19 Kerala accounts for nearly one fifth of total quantity of coffee produced in India. In 1981-82, the export of coffee from Cochin Port was 38,544 tonnes valued at Rs. 5079 crores against an export of 20839 tonnes valued at Rs. 43.27 crores in 1980-81. Coffee export in the year under review thus showed an increase in terms of both quantity and value. While the quantity of exports increased by 17705 tonnes, earnings increased by Rs. 7.52 crores. Table 8.13 shows the export of coffee from Cochin Port.

TABLE 8.13

*Export of Coffee from Kerala|Cochin Port*

Year	Quantity (Tonnes)	Value (Rs. Crores)
(1)	(2)	(3)
1978-79	24006	50.09
1979-80	22422	60.17
1980-81	20839	43.27
1981-82	38544	50.79

Source: Administration Reports Cochin Port.

**Cashew**

In recent years the internal production of raw cashew nuts as well as the import of raw nuts from abroad has been declining steadily. Cashew industry in Kerala therefore, has been starved of raw materials. India exports two cashew products viz., cashew kernels and cashew shell liquid.

**(1) Cashew Kernel.**

8.21 From the export of cashew kernels, India earned foreign exchange worth Rs. 186.95 crores in 1981-82 as against Rs. 141.09 crores in 1980-81. According to the Cashew Export Promotion Council, India exported 31537 tonnes of cashew kernels in 1981-82 as against 32805 tonnes in 1980-81. Thus, while the quantity of cashew kernels indicated a decline, the export earnings went up in 1981-82 compared to the previous year due to the rise in the unit value of cashew kernel.

8.22 Export of cashew kernels from Kerala was worth Rs. 141.98 crores in 1981-82 as against Rs. 110.52 crores in 1980-81. According to the Cashew Export Promotion Council, the quantity of cashew kernels exported from Kerala stood at 23,843 tonnes in 1981-82, against 24,754 tonnes in 1980-81. Though the quantity of cashew kernels exported from Kerala indicates a decline in recent years, the total foreign exchange earnings under this item shows an increase. The relevant details regarding India and Kerala are shown in Table 8.14.

TABLE 14

*Export of Cashew Kernels from India|Kerala*

Year	India		Kerala	
	Quantity (Tonnes)	Value (Rs. Crores)	Quantity (Tonnes)	Value (Rs. Crores)
1977-78	40300	149.54	36792	138.69
1978-79	27084	80.37	25817	76.86
1979-80	37848	117.91	36574	113.96
1980-81	32805	141.09	24754	110.52
1981-82	31537	186.95	23843	141.98

Source: Cashew Export Promotion Council.

**(ii) Cashew Shell Liquid.**

8.23 India exported 4777 tonnes of cashew shell liquid valued at Rs. 2.18 crores in 1981-82 against 9006 tonnes valued at Rs. 6.84 crores in 1980-81. Compared to the previous year there was decline both in the quantity and value of cashew shell liquid exported from India. Kerala export of cashew shell liquid also declined substantially valued at Rs. 1.87 crores in 1981-82, shell liquid from Kerala declined by 3503 tonnes as against 7863 tonnes valued at Rs. 5.77 crores during the previous year. Export of cashew tially. Kerala exported 4360 tonnes of cashew and its export earnings by Rs. 3.90 crores during this period. Table 8.15 shows the export of cashew shell liquid from India and Kerala for the last five years.

TABLE 8.15

*Export of Cashew Shell Liquid from India|Kerala*

Year	India		Kerala	
	Quantity (Tonnes)	Value (Rs. Crores)	Quantity (Tonnes)	Value (Rs. Crores)
(1)	(2)	(3)	(4)	(5)
1977-78	2588	1.08	2090	0.83
1978-79	5821	4.80	4702	3.11
1979-80	12928	14.46	11472	12.84
1980-81	9006	6.84	7863	5.77
1981-82	4777	2.18	4360	1.87

Source: Cashew Export Promotion Council.

**Raw Cashew Imports**

8.24 Cashew industry in India depends largely on imported raw nuts. In Kerala, internal production of raw cashew can meet only less than one third of the industry's annual requirements. Raw cashew nuts are imported mainly from South African countries. But the import of raw cashew nuts since 1975-76 has been fast declining. India imported 28,582 tonnes of raw cashew nuts in 1981-82 against 25,715 tonnes in the previous year. The value of imported raw cashew nuts amounted to Rs. 36.22 crores in 1981-82 against Rs. 19.57 crores in 1980-81, registering an increase of Rs. 16.65 crores.

8.25 The quantity of raw cashew nuts imported through Cochin Port stood at 14,846 tonnes valued at Rs. 17.36 crores in 1981-82, as against 10,632 metric tonnes valued at Rs. 8.18 crores in 1980-81. While the quantity of import increased by 4214 tonnes its value rose up by Rs. 9.18 crores in 1981-82, compared to the previous year. Table 8.16 gives details regarding the import of raw cashew nuts from abroad to India.

TABLE 8.16  
Import of Raw Cashew nuts in India

Year	India	Value (Rs. lakhs)
	Quantity Imported (Tonnes)	
(1)	(2)	(3)
1977-78	56299	1798.17
1978-79	20496	916.33
1979-80	24326	1162.55
1980-81	25715	1956.65
1981-82	28582	3622.00

Source: Cashew Export Promotion Council.

8.26 The net foreign exchange earned from cashew trade through the Cochin Port during 1981-82 amounted to Rs. 126.49 crores, as against Rs. 96.71 crores in 1980-81. (Net earning means the value of cashew kernels and cashew shell liquid exported minus the value of imported raw cashew nuts.) In 1981-82 net earnings from cashew trade through Cochin Port increased by 30.79 per cent over the previous year.

TABLE 8.17

Net earnings from Cashew Trade through Cochin Port

year	Export value (Rs. Crores)	Import value (Rs. Crores)	Net Earnings (Rs. Crores)
(1)	(2)	(3)	(4)
1977-78	139.52	17.98	121.54
1978-79	79.97	9.16	70.81
1979-80	126.80	11.62	115.18
1980-81	116.28	19.57	96.71
1981-82	143.85	17.36	126.49

### Marine Products

8.27 Exports of Marine Products from India have been showing an upward trend since 1960-61. From an export value of merely Rs. 3.92 crores in 1960-61. India reached an all time high level by exporting marine products worth Rs. 286 crores in 1981-82. A great jump in marine products exports was first realised in 1975-76 when the export earnings almost doubled compared to the previous year. There after the annual earnings from the export of marine products have been growing steadily except in 1977-78. The quantity of marine products exported was 70,105

tonnes in 1981-82, as against 75,591 tonnes in 1980-81. Though the quantity of sea foods exported declined by 7.26 per cent in 1981-82, the export earnings went up by 22 per cent compared to the previous year. This was due to a rise in the unit value of marine products.

8.28 The share of Kerala in India's total sea foods export is highly significant. Of India's exports of 70,105 tonnes of sea foods in 1981-82, Kerala's share was 32,006 tonnes (45.65%). In terms of value Kerala's share was Rs. 125.12 crore (43.75%) out of the all India export earnings of Rs. 286.01 crores. A close examination of sea foods export from Kerala during the last few years reveals wide fluctuations in quantity, value and the State's share in India's exports. Table 8.18 shows the relevant details for the last five years.

TABLE 8.18

Export of Marine Products from India/Kerala

Year	India		Kerala		Share of Kerala	
	Quan- tity (Tonnes)	Value Rs. (Crores)	Quan- tity (Tonnes)	Value (Rs. (Crores)	Quan- tity %	Value %
1977-78	65967	180.95	29819	97.45	45.20	42.80
1978-79	86894	234.62	32301	94.00	37.17	40.06
1979-80	86401	248.82	30534	103.93	35.34	41.77
1980-81	75591	234.84	29148	95.34	38.56	40.60
1981-82	70105	286.01	32006	125.12	43.65	43.75

Source: The Marine Products Export Development Authority.

8.29 India exports about eleven items of sea foods to foreign countries. Among them frozen shrimp and frozen froglegs constitute the major share. In 1981-82 these two items together constituted 56,245 tonnes (80.22%) in the all India export of 70,105 tonnes. In terms of value they were worth Rs. 259.15 crores (90.61%). The actual quantity of frozen shrimp and frozen froglegs exported stood at 52,180 tonnes and 4,065 tonnes respectively during the year. Kerala also exports more than ten items of sea foods. Among them also frozen shrimp and frozen froglegs constitute the major part. Out of the total export of 32,006 tonnes of sea foods from Kerala in 1981-82 frozen shrimp and frozen froglegs constituted 26,007 tonnes and 2,962 tonnes respectively. In terms of value these two items constituted Rs. 108.51 crores and Rs. 7.98 crores respectively. The quantity as well as value of export of frozen shrimp from Kerala showed an increase in 1981-82. The details regarding the item-wise export of sea foods from Kerala are shown in Table 8.19.

TABLE 8.19

## Item-wise Export of Marine Products from Kerala

(Rs. Crores)

Item	1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)
1. Frozen Shrimp	92.37	84.27	108.51
2. Frozen Froglegs	3.68	5.88	7.99
3. Frozen Lobster Tails	2.02	1.61	3.24
4. Frozen Cuttle Fish and Fillets	2.90	1.10	3.43
5. Frozen Squids	0.93	0.67	0.67
6. Fresh and Frozen Fish	0.21	0.03	0.23
7. Canned Shrimp	1.09	1.02	0.38
8. Others	0.73	0.70	0.67
Total	103.73	95.34	125.12

8.30 Frozen items like frozen shrimp, frozen froglegs, frozen lobster tails and frozen cuttle fish have recorded quantitative increase in export during the year under review. Meanwhile export of items like frozen fish, canned shrimp, dried shrimp, dried fish etc., suffered a set back. However there was an increase in export earnings. Frozen shrimp continued to dominate the marine products export trade in 1981-82. Frozen shrimp export reached an all time high of 52000 tonnes. The unit value of frozen shrimp was Rs. 31.62 per kg. in 1977-78. It rose to Rs. 47.52 per kg. in 1981-82.

8.31 Increased export prices, steady market conditions that prevailed abroad, higher rupee realisation per U. S. Dollar of export etc., were the major factors that contributed to an increase in the export earnings from marine products during 1981-82. The average unit value realisation of marine products exports showed an increase during the year under review. The average unit value which stood at Rs. 31,070 per tonne in 1980-81 sharply rose to Rs. 40,800 per tonne in 1981-82. Besides, Indian marine products regained its market in U. S. A. and Australia in 1981-82 and strengthened its markets in West Europe. U. A. E. has become one of India's important new markets in 1981-82.

8.32 Japan was the biggest consumer of Indian marine products in 1981-82. About 57 per cent of India's total exports of marine products were to Japan, which accounts for 71 per cent of the total export earnings under this item. U. S. A. was the second largest consumer of Indian marine products with an offtake of 15 per cent in terms of quantity and 12 per cent in terms of value. West Europe accounted for 13 per cent of the off-take of our marine products in 1981-82 in terms of quantity. India exported 38,384 tonnes of frozen shrimp valued at Rs. 197 crores in 1981-82. Out of this, U. S. A. imported 8603 tonnes valued

at Rs. 29.29 crores. Details regarding the region-wise export of frozen shrimp is shown in Table 8.20.

TABLE 8.20

## Country-wise Export of Frozen Shrimp from India

Country	Year			
	1981-82 Value (Rs. crores)	Share %	1980-81 Value (Rs. crores)	Share %
(1)	(2)	(3)	(4)	(5)
Japan	196.57	79.28	164.12	81.34
U.S.A.	29.29	11.81	22.43	11.12
Western Europe	16.36	6.60	12.81	6.35
Australia	2.68	1.08	1.45	0.72
Others	3.05	1.23	0.97	0.47
Total	247.95	100	201.78	100

Source: Marine Products Export Development Authority.

## Coir and Coir Products

8.33 Coir and Coir products from India enter into the world market in the form of coir fibre, semi-finished products like coir yarn, curled coir etc. and finished products like coir mats, matting, rugs, carpets and coir rope. India was enjoying virtual monopoly in the past in the export of coir and coir products into the world market. When Sri Lanka entered the world market and started to export coir and coir goods, India's monopoly began to decline gradually. But India still enjoys monopoly in the supply of spun yarn and manufactured products to world market. In India, coir and coir goods are mainly produced in Kerala. Neighbouring States like Tamil Nadu, Karnataka, Andhra Pradesh etc., entered the field recently. But the contribution of these States in India's total export of coir and coir products was below one per cent in 1981-82.

8.34 India exported 30078.7 tonnes of coir and coir products in 1981-82, as against 28609.5 tonnes in 1980-81. Foreign exchange earned through the export of coir and coir products amounted to Rs. 26.94 crores in 1981-82 against Rs. 25.55 crores in the previous year, registering an increase of 5.4 per cent.

8.35 The quantity of coir and coir products exported from Kerala totalled 29,891 tonnes in 1981-82 as against 28,149 tonnes in 1980-81. Foreign exchange earned through the above exports amounted to Rs. 26.77 crores and Rs. 25.14 crores respectively. The share of Kerala in India's total export of coir and coir products in 1981-82 was 99.38 per cent, against 98.40 per cent in 1980-81. Table 8.21 gives the details of export of coir and coir products from India/Kerala in 1981-82.



TABLE 8.21

Export of Coir and Coir products from India/Kerala (1981-82)

(Quantity Tonnes) (Value Rs. lakhs)

Item	India		Kerala		Kerala's share	
	Quantity	Value	Quantity	Value	Quantity %	Value %
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Coir Fibre	1.00	0.06	1.00	0.06	100.00	100.00
2. Coir Yarn	15836.60	1048.16	15684.20	1036.56	96.04	98.89
3. Coir mats	8142.80	920.59	8110.60	915.25	99.60	99.42
4. Coir mattings	5425.50	654.17	5422.40	653.95	99.94	99.97
5. Coir Rugs & Carpets	526.90	61.77	526.90	61.77	100.00	100.00
6. Coir, other sorts	27.90	2.55	27.90	2.55	100.00	100.00
7. Coir Rope	93.00	5.89	93.00	5.89	100.00	100.00
8. Curled Coir	25.00	0.56	25.00	0.56	100.00	100.00
Total	30078.70	2693.75	24891.00	2676.59	99.38	99.36

Source: Coir Board

8.36 Kerala exports about eight items of coir and coir products at present. Among them coir yarn, coir mats and coir mattings constitute the major share. Of the total export of coir and coir products (29,891 tonnes) from Kerala in 1981-82, these three items together constituted 29,217 tonnes (nearly 97.75 per cent). In terms of value, the above items were worth Rs. 26.06 crores (97.35 per cent). The quantity of coir yarn exported from Kerala was 15,684.2 tonnes in 1981-82 against 13,148 tonnes in 1980-81. The value of coir yarn export increased from Rs. 8.49 crores in 1980-81 to Rs. 10.36 crores in 1981-82. The export value of coir mats increased from Rs. 8.13 crores in 1980-81 to Rs. 9.15 crores in 1981-82. But the quantity as well as value of coir mattings exported declined considerably in 1981-82. While 7010 tonnes of coir mattings valued at Rs. 8 crores was exported from Kerala in 1980-81, the corresponding figures for 1981-82 were 5422 tonnes and Rs. 6.54 crores respectively. India did not export rubberised coir in 1981-82. The details regarding the export of coir and coir products for the last three years are shown in Appendix 8.1.

### Kerala's Imports

8.37 Imports effected through Cochin Port in 1981-82 totalled 42.03 lakh tonnes, as against 41.12 lakh tonnes in 1980-81, registering an increase of 2.2 per cent. Of the total imports, foreign imports constituted 36.72 lakh tonnes and coastal imports 5.31 lakh tonnes in the year under review. While foreign imports showed an increase coastal imports showed a decline in 1981-82 compared to 1980-81. Table 8.22 shows the total foreign and Coastal imports through Cochin Port from 1979-80 to 1981-82.

TABLE 8.22  
Foreign and Coastal imports  
(Lakh Tonnes)

Year	Coastal	Foreign	Total
(1)	(2)	(3)	(4)
1979-80	4.75	38.81	43.56
1980-81	5.95	35.17	41.12
1981-82	5.31	36.72	42.03

8.38 In 1981-82, POL dominated the imports front, with 76 per cent of the total imports effected through Cochin port. Fertilizers and its raw materials constituted 12.6 per cent and cement constituted 3.1 per cent. Foodgrains formed 2.5 per cent of total imports in 1981-82. Table 8.23 shows the commodity wise imports effected through Cochin Port in 1981-82.

TABLE 8.23  
Commodity-wise Import Through Cochin Port

Commodity	1980-81		1981-82	
	Quantity (Lakh Tonnes)	Percentage to total	Quantity (Lakh Tonnes)	Percentage to Total
(1)	(2)	(3)	(4)	(5)
1. POL	31.41	76.40	32.00	76.10
2. Fertilizers and its Raw Materials	6.62	16.10	5.31	12.50
3. Food grains	0.15	0.40	1.05	2.50
4. Cement	1.57	3.80	1.28	3.10
5. Iron, Steel and Machinery	0.25	0.60	0.25	0.60
6. Newsprint	0.31	0.70	0.45	1.10
7. Cashewnuts	0.07	0.20	0.16	0.40
8. Miscellaneous	0.74	1.80	1.53	3.60
Total	41.12	100.00	42.03	100.00

Source: Cochin Port Trust

8.39 While imports of commodities like petroleum, food grains, raw cashew nuts, and newsprint recorded an increase the imports of cement and fertilizers and its raw materials registered a decline in 1981-82.

8.40 Of the total imports of 42.03 lakh tonnes through Cochin Port in 1981-82, 27.77 lakh tonnes originated from Asian countries, and 2.39 lakh tonnes from African countries. Imports from Canada and U.S.A. through Cochin Port during the year totalled 1.30 lakh tonnes and 1.01 lakh tonnes respectively. The zone-wise import through Cochin Port is given in Table 8.24.

TABLE 8.24

Country-wise Import Through Cochin Port (1981-82)

Country	Imports(Lakh Tonnes)	Percentage Share of Each Country
(1)	(2)	(3)
1. Asian Countries	27.77	66.00
2. African Countries	2.39	5.70
3. Canada	1.30	3.10
4. U.S.A.	1.01	2.40
5. Indian Coastal	5.28	12.60
6. Others	4.28	10.20
Total Imports	42.03	100.00

While imports which originated from Far Eastern Countries, Japan, U.S.S.R., U.S.A., Canada, etc., recorded an increase, imports, from Asian Countries, U.K., West Germany and other European Countries declined in 1981-82 compared to the previous year.

8.41 The total value of imports effected through Cochin Port in 1981-82 was Rs. 880.17 crores as against Rs. 786.55 crores in 1980-81. Out of the total imports through Cochin Port in 1981-82 the value of coastal imports amounted to Rs. 30.12 crores as against Rs. 27.11 crores in 1980-81. Both foreign and coastal imports

showed an increase during 1981-82, over the previous year, the increases being 11.9 per cent and 10.7 per cent respectively. Table 8.25 shows the value of total imports effected through Cochin Port in 1981-82. Details relating to import value of commodities through the Cochin Port are presented in Table 8.25.

TABLE 8.25

Value of Imports in 1981-82

Particulars	1980-81 (Value Rs. Crores)	1981-82 (Value Rs. Crores)
(1)	(2)	(3)
Foreign Imports	759.44	850.15
Coastal Imports	27.11	30.12
Total Imports	786.55	880.17

Source: Cochin Port Trust Administration.

TABLE 8.26

Import Value of Commodities Through Cochin Port

(Rs. Crores)

Commodities	1980-81	1981-82
(1)	(2)	(3)
1. Chemicals	61.90	48.18
2. Iron and Steel	2.46	12.22
3. News print	13.41	19.74
4. Cashewnuts(Raw)	7.14	18.60
5. Machinery	3.50	14.13
6. Other Metals	2.10	1.79
7. Vegetable Oil	1.54	2.75
8. Miscellaneous	680.80	732.74
Total	772.85	850.15

Source: Cochin Port Trust Administration.

**CHAPTER 9**  
**SOCIAL SERVICES**

**Education**

The literacy rate in Kerala according to 1981 Census is 70.42 per cent as against 36.03 per cent at the all India level. The State allocated 7.86 per cent of the State's income in 1979-80 to the maintenance and development of education. But the all India expenditure on education during 1979-80 stood at only 3.81 per cent of the national income. The quantitative expansion in the number of institutions, especially, in the case of upper primary schools and high schools was quite high in 1980-81 and 1981-82. However, the enrolment of students in standard I showed a negative trend. In the case of higher education, the Government accorded sanction to start two Government colleges and six private colleges during 1982-83.

*General School Education*

9.2 During 1981-82, there were 11,665 schools of which 2075 were high schools, 2779 were upper primary schools and 6811 were lower primary schools. In view of the necessity for providing schooling facilities in the educationally backward areas, Government have accorded sanction for opening 226 schools in 1982-83. The new schools consist of 2 departmental lower primary schools, 40 private lower primary schools, 72 private upper primary schools and 112 private high schools.

9.3 The total enrolment of students in schools decreased from 56.51 lakhs in 1981-82 to 56.46 lakhs in 1982-83. In real terms, the decrease was 5114 students, 2685 in the primary stage and 2429 in the secondary stage. The enrolment in the lower primary stage showed a negative sign, while in the upper primary stage it showed an upward trend. The variation in enrolment in the different stages of school education during 1981-82 and 1982-83 is shown in Table 9.1.

TABLE 9.1

*Enrolment in Schools—State-wise*

Education Level	Enrolment		Variation
	1981-82	1982-83	
(1)	(2)	(3)	(4)
Lower Primary	2586088	2549063	(—)37025
Upper Primary	1747214	1781554	(+)34340
Secondary	1317496	1315067	(—) 2429
Total	5650798	5645684	(—) 5114

9.4 The enrolment of students in standard I shows a negative trend. The enrolment figure in 1972-73 stood at 6.86 lakhs. It has come down to 6.26 lakhs during 1982-83. In standard I, the enrolment showed an increase of 0.19 lakh during 1981-82 whereas it shows a decline of 0.24 lakh in 1982-83. The Table 9.2 relates to the enrolment of students in standard I during the last decade.

TABLE 9.2

*Trend in Enrolment in Standard I—1972-73 to 1982-83*

Year	Enrolment in Std I (in lakhs)	Variation (lakhs)
(1)	(2)	(3)
1972-73	6.86	..
1973-74	6.46	(—)0.40
1974-75	6.59	(+)0.13
1975-76	6.54	(—)0.05
1976-77	6.76	(+)0.22
1977-78	6.94	(+)0.18
1978-79	6.55	(—)0.39
1979-80	6.55	..
1980-81	6.31	(—)0.24
1981-82	6.50	(+)0.19
1982-83	6.26	(—)0.24

9.5 The enrolment of girls under school education in 1982-83 shows a slight increase i.e., 48.80 per cent in the lower primary level, 48.13 per cent in the upper primary level and 48.88 per cent in the secondary level. But during 1981-82, the enrolment percentages stood at 48.53, 48.02 and 48.64 respectively.

9.6 The total number of students appeared for the S.S.L.C. Examination of 1981 (March and September) accounted for 4.98 lakhs as against 5.16 lakhs in March 1982. The students passed in the S.S.L.C. Examination during 1981, stood at 1.88 lakhs as against 1.89 lakhs in March 1982.

9.7 The total number of teachers in schools at the end of 1981-82 was 1.78 lakhs as against 1.75 lakhs in 1980-81.

*Higher Education (General)*

9.8 The field of higher education witnessed the continuing upward trend in conformity with the demand at the university level mainly due to the heavy output of matriculates and due to lack of alternative opportunities. The demand for higher education was met by opening of new colleges, extension of shift system in more colleges, introduction of new courses and sanction of more seats. In 1982-83 sanction has been accorded to start 8 Arts and Science Colleges (6 under private management and 2 under government sector) as against 25 in 1981-82 (17 under private management and 8 under Government sector). Even then, a good number of students depend on Parallel Colleges for their higher education needs.

9.9 The number of Arts and Science Colleges had registered an increase from 157 in 1981-82 to 170 in 1982-83 (excluding the 4 evening colleges). Kerala University accounts for 99 colleges out of which 85 are under private management and 14 under Government sector. Calicut University has to its credit 71 colleges of which 47 are under private management and 24 under Government sector. There are no affiliated or constituent Arts and Science Colleges under the Cochin University.

9.10 The intake of students in the Arts and Science Colleges has been fairly high (more than sevenfold) during the past two decades. The enrolment which stood at 2.42 lakhs in 1980-81 had gone up to 2.68 lakhs in 1981-82. The enrolment at the Pre-degree level increased from 1.49 lakhs in 1980-81 to 1.66 lakhs in 1981-82 of which 0.85 lakh were boys and 0.81 lakh girls. At the degree level, there were 0.95 lakh of students in 1981-82 (0.47 lakh boys and 0.48 lakh girls) as against 0.87 lakh in the previous year. The number of Post Graduate students in Arts and Science Colleges recorded a rise from 5,866 in 1980-81 to 6,718 in 1981-82, consisting of 3,456 boys and 3,262 girls. The proportion of girl students to total enrolment was 49.48 per cent in 1981-82. There were 960 students in the Post-graduate Departments of the Kerala and Calicut Universities. The trend in enrolment at the University level is depicted in Table 9.3.

TABLE 9.3  
Growth of Enrolment under Higher Education

Year	Enrolment (in lakhs)	Index of Growth
(1)	(2)	(3)
1960-61	0.36	100
1965-66	1.05	292
1970-71	1.53	425
1975-76	1.66	461
1979-80	2.12	589
1980-81	2.42	672
1981-82	2.68	744

#### Professional and Technical Education

9.11 Considering the expanding scope for employment for the technically qualified hands, the sphere of technical education was widened by introducing new courses, increasing the annual intake and by providing adequate facilities to the existing technical institutions.

9.12 The technical education sphere consists of 6 Engineering Colleges, 20 Polytechnics and 25 Junior Technical Schools. The number of engineering students marked a rise from 5467 in 1980-81 to 5739 in 1981-82. Fifty-two additional seats had also been sanctioned during

1981-82. The enrolment in Polytechnics increased from 8275 in 1980-81 to 8,668 in 1981-82. The Junior Technical Schools which had a total strength of 4,120 students in 1980-81 stood with 4,488 students during 1981-82.

9.13 For imparting professional education, there are at present 5 Medical Colleges, 4 Ayurveda Colleges, 4 Law Colleges and 19 Teachers' Training Colleges in the State. During 1981-82 the enrolment in Medical Colleges stood at 3,734. The Law Colleges and the Ayurveda Colleges had students strength of 2,297 and 2,792 respectively.

#### Expenditure on Education

9.14 The State is expected to incur an expenditure of Rs. 226.18 (B.E.) crores for the maintenance and development of education during 1982-83 as against Rs. 207.44 (R.E.) in 1981-82. The corresponding change in per-capita expenditure was a rise from Rs. 97.06 to Rs. 103.08. At the all India level the per capita expenditure on education was Rs. 48 (in 1981-82). At the primary stage, cost per pupil marked a rise from Rs. 310.31 in 1981-82 to Rs. 338.38 in 1982-83, whereas at the secondary stage it increased from Rs. 504.97 to Rs. 557.79. Out of the total expenditure on education, primary education accounted for 54.8 per cent and secondary education 27.3 per cent during 1982-83. The share of University education and technical education was 11.5 per cent and 3.4 per cent respectively. Other programmes including special education shared 2.5 per cent.

#### Health

##### Allopathy

9.15 Kerala has achieved considerable progress in the promotion of health status of the people. A fairly extensive network of institutions (both allopathic and indigenous) providing specialities and a large stock of medical and health personnel at various levels are available in the State

9.16 District-wise distribution of bed-population ratio shows that there are regional imbalances in the availability of health facilities. The bed population ratio is less than the desired norm of one bed per thousand population in the districts of Quilon, Idukki, Palghat, Malappuram, Wynad and Cannanore. Strengthening of the existing P. H. Centres, Sub Centres and Rural Dispensaries and starting of new ones in backward areas will help in correcting the regional imbalances in the availability of medical facilities.

9.17 The actual expenditure on the health sector under plan schemes during 1981-82 was Rs. 875.30 lakhs as against Rs. 627.72 lakhs during 1980-81. An amount of Rs. 51.08 crores (both plan and non plan) was spent on institutions under allopathic system of medicine during 1981-82 as against an expenditure of Rs. 41.53 crores during 1980-81

9.18 There were 968 allopathic medical institutions functioning in the State in 1981-82. There were 177 Primary Health Centres and 1797 sub centres in the State by the end of 1982 for providing health care facilities to the rural masses. The number of rural dispensaries increased from 595 in 1980-81 to 626 by the end of November 1982. The four Medical Colleges at Trivandrum, Alleppey, Kottayam and Kozhikode have a total admission capacity of 600 students. The fifth medical college has been started at Trichur in January 1982 with an intake capacity of 75. With the conversion of Medical College Hospital, Trivandrum into a referral hospital, the quality of service has improved considerably. There are 2575 beds attached to the Medical College Hospital, Trivandrum. The total bed strength of Medical College Hospital, Kottayam is 1001. The following specialities have been added at the Medical College Hospital Kottayam:

- (i) Neonatology
- (ii) Nephrology unit under Medicine with two kidney machines
- (iii) Physical Medicine Department with artificial limb fitting centre.

9.19 The second Dental College has been started at Calicut on 4-8-1982 attached to the Medical College Hospital there. It has 8 departments and an admission capacity of 30 students.

9.20 Data regarding the number of medical institutions and beds under allopathic system of medicine for the period from 1975-76 to 1981-82 are presented in Table 9.4

TABLE 9.4  
*Medical Institutions and Beds in Kerala*

Year	No. of Medical Institutions	No. of Beds	No. of Beds per lakh of Population
(1)	(2)	(3)	(4)
1975-76	885	27568	115
1976-77	888	27607	113
1977-78	893	28862	116
1978-79	898	29947	119
1979-80	913	30220	119
1980-81	968	32447	128
1981-82(*)	968@	30254	119

\*Provisional

@Does not include Grant-in-aid institutions

Source: Directorate of Health Services.

9.21 District-wise break up of the number of medical institutions and number of beds per lakh of population is given in Table 9.5

TABLE 9.5  
*Number of Medical Institutions and Beds under Allopathic System of Medicine in Kerala—District-wise*

District	Number of Institutions		Number of Beds		No. of Beds per Lakh of Population
	1980-81	1981-82@	1980-81	1981-82@	1981-82
(1)	(2)	(3)	(4)	(5)	(6)
1. Trivandrum	94	97	5237	5678	219
2. Quilon	94	97	2053	2065	73
3. Alleppey	86	88	3478	3557	152
4. Kottayam	64	66	2709	2723	162
5. Idukki	47	46	395	395	40
6. Ernakulam	95	98	2946	3031	119
7. Trichur	94	84	3473	3511	144
8. Palghat	82	83	1399	1999	68
9. Malappuram	86	89	1082	1062	44
10. Kozhikode	63	64	3740	3762	167
11. Wynad	29	29	385	388	70
12. Cannanore	130	127	2467	2683	95
Kerala	964	968	29364	30254*	119

@ Provisional

\* Excludes Grant-in-aid institutions

Source: Directorate of Health Services.

9.22 District-wise distribution of the number of hospitals, P. H. Centres, Dispensaries etc., with the number of beds is furnished in Appendix 9.26. Year-wise and State-wise details regarding the number of Doctors, Hospitals, beds etc., for All India are given in Appendices 9.27 and 9.28 respectively. Detailed break-up of expenditure and District-wise break up of per capita expenditure on Medical and Public Health are shown in Appendices 9.29 and 9.30 respectively.

### Indian Systems of Medicine

#### Ayurveda

9.23 During 1981-82, twenty-seven Ayurveda dispensaries including one Mobile Dispensary and one Sidha Dispensary were opened. Seven dispensaries were upgraded into 10 bedded hospitals. One hospital with 30 beds and another with 20 beds were also started during the period. The bed strength of three of the existing hospitals was also increased.

9.24 One Marma section and one Panchakarma section were started in the existing hospitals. The status of the hospital at Varkala was raised to that of District Hospital by providing 30 more beds.

9.25 In 1982-83 upto the end of December 1982, fourteen dispensaries were sanctioned and of this 3 dispensaries have already been opened. One dispensary has been upgraded into a 10 bedded hospital. Twenty posts of pharmacists were also sanctioned to various dispensaries where the posts of pharmacists were not in existence previously.

9.26 The number of institutions under the Indian Systems of Medicine increased from 504 in 1980-81 to 531 in 1981-82. In 1981-82 there were 92 hospitals and 439 dispensaries under Ayurveda in the State. District-wise details of the number of medical institutions and beds under Ayurveda are furnished in Appendix 9.31.

9.27 During 1981-82, the Department of Indian Systems of Medicine spent an amount of Rs. 4.19 crores (Plan and Non-plan expenditure) as against an expenditure of Rs. 3.74 crores during the previous year.

#### Homoeo

9.28 During the year 1981-82, thirty-three homoeo dispensaries were opened in various parts of the State and of these five were for the benefit of the Scheduled Castes. Three District Hospitals (one each at Thodupuzha, Cannanore and Kottayam) and 3 Taluk Hospitals (one each at Manjeri, Kayamkulam and Karakulam) were also opened. Ten beds were additionally allotted for the existing Government Homoeo Hospital at Kurichi. Also, modern equipments were purchased for the Government Homoeo Hospital at Ernakulam.

9.29 The number of institutions under Homoeopathy increased from 175 during 1980-81 to 214 during 1981-82. The number of beds

increased from 535 to 675 during this period. The expenditure incurred during 1981-82 was Rs. 71.8 lakhs as against Rs. 70.7 lakhs in 1980-81. District-wise details of the number of homoeopathic institutions and beds are furnished in Appendix 9.32.

9.30 Table 9.6 gives the details of registered medical practitioners under the different systems of medicine during the years 1980-81 and 1981-82. It is seen that the number of medical practitioners under the allopathic system increased significantly.

TABLE 9.6  
Medical Practitioners

	System	Class of Registration	1980-81	1981-82
	(1)	(2)	(3)	(4)
I.	Modern Medicine	A	11,017	12,503
		B	635	635
		Listed	204	204
	Sub Total		11,856	13,342
II.	Homeopathy	A	2,105	2,211
		B	1,486	1,486
		Listed	279	279
	Sub Total		3,870	3,976
III.	Ayurveda	A	4,344	4,525
		B	6,100	6,100
		Listed	599	599
	Sub Total		11,043	11,224
IV.	Sidha	A	51	51
		B	1,218	1,218
		Listed	41	41
	Sub Total		1,310	1,310
V.	Unani	A	1	1
		B	51	51
		Listed	5	5
	Sub Total		57	57
Grand Total			28,136	29,909

Source: Registrar, Medical Councils.

#### Family Welfare Programme

9.31 Kerala has the lowest death and birth rates in the country viz., 6 deaths per 1000 population and 25.5 births per 1000 population. The important socio-economic factors influencing fertility in the State are higher level of literacy and education especially female education, better status enjoyed by women and greater employment opportunities available to them.

9.32 District-wise details regarding the number of family welfare centres and achievements under family welfare programme are given in Appendices 9.33 and 9.34 respectively. The number of vasectomy and P.P.S. operations conducted during the year 1981-82 was 16,262 and 107,596 respectively as against 15,854 and 97,120 respectively during the previous year. The number of I.U.D. insertions also increased from 18,394 during 1980-81 to 20,558 during 1981-82. There is however a decrease in the number of induced abortions.

9.33 The expenditure incurred on family welfare programme has been increasing steadily. Table 9.7 shows the expenditure on family welfare programme for the last five years.

TABLE 9.7

Expenditure on Family Welfare Programmes in Kerala

Year	Amount (Rs. in lakhs)
1977-78	431.10
1978-79	462.53
1979-80	523.78
1980-81	584.81
1981-82 (R.E.)	713.43

9.34 Data relating to expenditure under Health Services for the years 1980-81, 1981-82 and 1982-83 (BE) are furnished in Table 9.8.

TABLE 9.8

Expenditure under Health

Item	(Rs. lakhs)		
	1980-81	1981-82 (R.E.)	1982-83 (B.E.)
(1)	(2)	(3)	(4)
<i>A. Medical</i>			
1. Allopathy	4153.15	5108.32	5278.61
2. Ayurvedic	374.77	419.71	446.23
3. Homocopathy	70.72	71.80	72.92
<i>B. Public Health &amp; Sanitation*</i>	549.58	778.33	805.49
<i>C. Family Welfare</i>	590.20	713.43	792.94
Total	5738.42	7091.59	7396.19

\* Excludes "Prevention of Air and Water Pollution".

Source:—Demands for Grants and Detailed Budget Estimates 1982-83 Vol. I.

### Sewerage and Water Supply

9.35 As a result of past efforts we could provide safe drinking water to 63 per cent of the urban and 29 per cent of the rural population. As regards urban sewerage only two Municipal Corporations, viz. Trivandrum and

Cochin, could be covered so far and that too partially. The coverage is 30 per cent in Trivandrum and 15 per cent in Cochin.

9.36 With the reintroduction of the cent per cent centrally sponsored Accelerated Rural Water Supply scheme from 1977-78, the water supply programmes in the State have gained momentum. One hundred and ten rural water supply schemes and four urban water supply schemes (including partially commissioned schemes) have been completed during the year 1981-82. Thus by the end of 1981-82, 995 rural water supply schemes, 33 urban water supply schemes and 2 urban sewerage schemes were in operation. In addition, 483 rural water supply schemes, 9 urban water supply schemes and 5 urban sewerage drainage schemes were under various stages of execution by the end of 1981-82.

9.37 The loan assistance from the LIC of India is a major source of finance for the sewerage and water supply programmes in the State. Thirty-one out of 33 urban water supply schemes and 186 out of the 995 rural water supply schemes in operation in the State were financed by the LIC of India at one stage or the other. The LIC assistance for urban water supply schemes during the year was Rs. 187 lakhs (for 5 water supply schemes and 2 sewerage schemes) and that for rural water supply schemes Rs. 86.7 lakhs (for 64 rural water supply schemes).

9.38 In view of the heavy investments required for the realisation of the targets set for the International Decade for Water Supply and Sanitation (1981-90) efforts are being made to secure substantial loan assistance from the World Bank (IBRD) and bilateral assistance from foreign countries. Negotiations for assistance are in progress with IBRD for 3 urban and 7 rural water supply schemes. Further, the Netherlands Government has come forward with offer of assistance for piped water supply programmes in the State under bilateral terms. Assistance for 4 rural water supply schemes are already in the pipeline and negotiations for assistance for 3 more comprehensive rural water supply schemes are under advanced stage.

9.39 For the maintenance of environmental hygiene and to prevent the spread of contagious and water borne diseases, the programme of distribution of E.S.P. type latrines in rural areas through the C. D. Blocks continued during 1981-82. The number of ESP type latrines distributed under the programme increased from 21,767 in 1980-81 to 22,000 in 1981-82.

9.40 The scheme for the provision of drinking water to rural areas through open dug wells continued during 1981-82. The number of open dug wells constructed during 1981-82 was 1200 as against 993 in 1980-81.

9.41 The expenditure for sewerage and water supply schemes under plan and non-plan accounts stood at Rs. 24.33 crores in 1981-82 (provisional) as against Rs. 19.18 crores in 1980-81.

#### Pollution Control

9.42 The following Central Enactments are meant for the prevention of the indiscriminate pollution of our water resources and atmosphere—

- (i) the Water (Prevention and Control of Pollution) Act, 1974;
- (ii) the Water (Prevention and Control of Pollution) Cess Act, 1977; and
- (iii) the Air (Prevention and Control of Pollution) Act, 1981.

These Acts provide for—

- (a) the prevention and control of water and air pollution;
- (b) the maintenance or restoration of the wholesomeness of water and air; and
- (c) establishment of Boards for Prevention and Control of Water and Air Pollution for the discharge of the above functions.

9.43 The Kerala State Board for Prevention and Control of Water Pollution was constituted in 1974 under the provisions of the Water Act. Subsequent to the enactment of the Air (Prevention and Control of Pollution) Act in 1981 the scope of activities of the Board has been widened. Keeping in view of these enlarged functions, the Board has been renamed as the Kerala State Pollution Control Board.

#### A. Water Pollution Control

9.44 Among other things, the following are the major functions of the Board for the control of water pollution:

- (i) grant of consent to the industries and other agencies in Kerala for discharging their effluents;
- (ii) preparation of a comprehensive plan for prevention, control and abatement of pollution;
- (iii) monitor the quality of water in the rivers and water bodies continuously so as to plan control programmes to restore the quality befitting to best designated uses;
- (iv) advise the State Government on all matters concerning water pollution;
- (v) encourage to carry out research and investigations relating to problems of water pollution and prevention;
- (vi) lay down standards for trade effluents and sewage; and

- (vii) inspect sewage or trade effluent works and plants for treatment of sewage and trade effluents and review plans and specifications.

9.45 The water pollution control strategy of the State Board is based on two main principles viz.,

- (i) to move first to combat pollution where it is most serious; and
- (ii) to prevent clean water from becoming polluted.

9.46 The grant of consent to the industries and other agencies for discharging their effluents is administered by the Regional Officers of the Board at Calicut, Ernakulam and Trivandrum. Timely and adequate instructions are issued to the firms for the implementation of comprehensive effluent treatment scheme and for the proper maintenance of the existing and newly constructed effluent treatment plants based on the inspection and investigation findings of inspecting officers.

9.47 In 1974, when the Board was constituted, waste water treatment was in operation only in one industry out of the 25 major industries under different categories i. e. Cochin Refineries. Even in this case only 95 per cent of the waste water was treated. The waste water generation during 1974-75 was 3335.38 lakh litres per day. Consequent on the activities of the Board this situation has changed considerably. In 1982, out of the 31 major industries under different categories, 27 industries are treating waste water ranging from 30 per cent to 100 per cent. Two industrial units (viz. Indian Aluminium Company, Alwaye and Premier Tyres Ltd., Kalamasserry) require no treatment of waste water as the waste water generated by these two industrial units only cools water and causes no appreciable pollution. (The waste water generation during 1982-83 is 4111.35 lakh litres per day).

9.48 The remaining two major industries viz., the Indian Rare Earths Ltd., Chavara and the Titanium Products, Trivandrum do not treat the effluents even though they are bound to do that statutorily. Details of effluents generated and treated are given in Appendix.

9.49 During the year 1982-83 the Board issued 18 consents to various waste dischargers and more than 2300 samples of effluent from industrial outlets and water samples from different rivers and lakes were analysed. Apart from regular monitoring of rivers like Periyar, Chaliyar, Pampa, Kallada, the monitoring of Muvattupuzha river was also undertaken during the year.

9.50 Considerable progress has been achieved during the year in controlling pollution in some of the major sources of industrial pollution. Major industries like M/s. F.A.C.T., Udyogamandal; Cochin Refineries; Sitharam Textiles,



Trichur; Milk Project, Edappally and Indian Rare Earths, Udyogamandal have completed construction of waste treatment plants to control pollution as per the directives of the Board. Pollution control works are in progress in industries like M/s F.A.C.T., Cochin Division; Laxmi Starch, Kundara; Hindustan Insecticides, Udyogamandal and Madura Coats, Koratti. New industries like M/s Minerals and Metals, Chavara; Kerala State Drugs and Pharmaceuticals Ltd., Alleppey etc., are keenly engaged in the construction of pollution control plants simultaneously with the erection of the factory. The Gwalior Rayons Silk Manufacturing (Weaving) Company Ltd., Mavoor, had made some improvements in the existing effluent treatment plant during 1982-83. Out of the existing 36 old aerators 33 were replaced with those of higher capacity during the period February-October 1982. The combined effluent settling lagoon was converted into an activated sludge lagoon with 20 aerators. A secondary clarifloculator was also added for treating the effluent. With these renovations and additions considerable improvement in the quality has been made though the effluent treatment plant is not fully satisfactory.

9.51 A number of prosecution cases, including cases against the Punalur Paper Mills and Gwalior Rayons, were filed during the year in various courts under the provisions of the Water Act, 1974.

9.52 The Board in addition to its normal functions is also attending to the W. H. O. Global Monitoring Programme and Research Projects such as:—

- (i) studies on environmental pollution in Kerala; and
- (ii) long term study of ecological and environmental impacts of multipurpose river valley projects with special reference to Idukki Project.

#### B. Air Pollution Control

9.53 The following are the major functions of the Board under the Air Act, 1981:—

- (i) to identify Air Pollution Control areas;
- (ii) to prescribe air pollutant emission standards;
- (iii) to prepare inventory of air pollution sources; and
- (iv) regular monitoring of ambient air pollutants.

9.54 For the discharge of the above functions an air pollution control cell has to be established in the State Board. The Board has already started Air Pollution Control activities under the provisions of the Air Act, 1981. As a first step, preparation of an inventory of factories and agencies causing air pollution has been completed. Action is being initiated to tackle the problem of air pollution in the air polluted areas of Udyogamandal, Cochin, Mavoor in Calicut and Kochuveli in Trivandrum.

4/723|MC.

#### Housing

9.55 The number of agencies involved in the implementation of housing programmes in the State is so large that it poses considerable difficulties in getting a precise picture of the programme at a glance. A brief account of the activities and achievements of housing programmes of the various implementing agencies in the State is given below:—

##### 1. Board of Revenue

9.56 The major housing schemes implemented by the Board of Revenue are:—

- (i) The Low Income Group Housing Scheme;
- (ii) The Middle Income Group Housing Scheme;
- (iii) The Village Housing Project;
- (iv) Housing Scheme for Rural Workers;
- (v) Provision of house sites to Rural workers; and
- (vi) Settlement of Agricultural Workers.

9.57 Under housing schemes implemented by the Revenue Board 1441 houses costing a sum of Rs. 186.50 lakhs are anticipated to be completed during 1982-83 as against 5892 houses constructed at a cost of Rs. 425.20 lakhs during 1981-82.

9.58 Under the scheme for the provision of house sites to landless rural workers, an extent of 163.16 acres of land was purchased at a cost of Rs. 90.22 lakhs for distribution among the landless families during 1981-82.

##### 2. Finance Department

9.59 The Finance Department of Government is the sanctioning authority for house building advance to Government Servants. Under the general sector, other than Scheduled Castes, Scheduled Tribes and Class IV employees, all applications for original advance as on 30-4-1980 have been sanctioned. All original loan applications as on 31-3-1981 of Scheduled Castes, Scheduled Tribes and Class IV employees and all additional loan applications as on 31-3-1982 have been sanctioned by the Department. The provision during 1980-81, 1981-82 and 1982-83 was Rs. 400 lakhs Rs. 200 lakhs and Rs. 200 lakhs respectively.

##### 3. Public Works Department (B & R)

9.60 The Public Works Department is directly responsible for the implementation of the Rental Housing Scheme and the Scheme for construction of quarters to Government Servants. Under the Rental Housing Scheme out of the 13 works, budgeted for 1982-83, 9 works have been completed and 4 works are nearing completion as against

the achievement of 7 works completed and 8 works in progress in 1981-82. The expenditure under the scheme in 1981-82 was Rs. 73.29 lakhs and the anticipated expenditure for 1982-83 was 10.41 lakhs. Under the scheme, construction of quarters to Government Servants, a sum of Rs. 49.30 lakhs was expended during 1981-82 for the completion of 4 works and the continuation of 6 works. The anticipated expenditure for the scheme in 1982-83 was Rs. 18.64 lakhs. During the year under review (1982) 5 works were completed and 4 works were in progress.

#### 4. Police Department

9.61 The Police Housing Scheme implemented by the I. G. of Police involves the construction of family quarters and barracks for police personnel to achieve a satisfaction level of 58.2 per cent by 1983-84. Funds are provided for the scheme under plan and non-plan accounts. The Seventh Finance Commission has awarded Rs. 345 lakhs under non-plan for the scheme. Upto the end of 1981-82, 7154 family quarters and 3250 barracks accommodation were provided under the scheme.

#### 5. Tribal Welfare Department

9.62 Under the various housing schemes implemented by the Department of Tribal Welfare 440 houses were constructed under plan and non-plan accounts at a cost of Rs. 49.47 lakhs during 1981-82.

#### 6. Harijan Welfare Department

9.63 The Harijan Welfare Department is providing grants and interest free loans to Harijans for the construction of houses. Under these schemes, 1892 houses were constructed during 1981-82 at a loan/grant involvement of Rs. 75.83 lakhs. The anticipated expenditure for the Harijan Housing Scheme under the Department during 1982-83 was Rs. 82 lakhs for the construction of 1447 houses.

#### 7. Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes

9.64 The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes has taken up a massive programme, including housing programme, for the benefit of scheduled castes and scheduled tribes in the State. These schemes are partly financed by HUDCO loans and partly by grants from State Government. In its first housing series started in 1975 the Corporation proposed to construct 2200 houses at a unit cost of Rs. 5000 of which 2163 houses have been completed by the end of 1982. In its second series, the Corporation has taken up in 1978-79, a housing scheme for the construction of 10,000 low cost houses at a unit cost of Rs. 3000 of which 9400 houses have been completed by the end of 1982. In the third series it has taken up in 1979-80, a housing scheme for the construction of 100 houses at a unit cost of Rs. 7000 for the Harijan employees engaged in unclean occupation of the Calicut Corporation, according to which Rs. 1.54 lakhs was given to

40 beneficiaries who have executed agreements. A fourth housing scheme was inaugurated in 1980-81 for the construction of another 10,000 low cost houses at a unit cost of Rs. 3984 of which 7557 houses have been completed by the end of 1982, involving an amount of Rs. 375.19 lakhs. The Corporation has proposals for 3 more housing schemes.

#### 8. Housing Board

9.65 The Housing Schemes implemented by the Board fall under three major categories viz:—

- (i) Public Housing Schemes;
- (ii) Housing Loan Schemes; and
- (iii) Special Schemes.

9.66 As on 30-6-1980, the Board has taken up 51 Public housing schemes. These schemes involve the construction of 62,243 houses for different categories of people. While some schemes have been completed others are at various stages of execution. These schemes are financed mainly by HUDCO loan assistance and Government provides seed finance by way of public borrowing. As on 1980-81 the Board has incurred an expenditure of Rs. 507.22 lakhs on area development and Rs. 1182.30 lakhs on construction of houses under its public housing schemes. Of the 51 public housing schemes, 9 were taken up in 1980-81. The expenditure on area development and house construction during 1980-81 was Rs. 274 lakhs and Rs. 243 lakhs respectively compared to the expenditure of Rs. 18.76 lakhs and Rs. 138.28 lakhs respectively in 1979-80.

9.67 A major step taken up by the Board for arresting the present rising trend in urban land value is the Advance Registration Scheme for developed plots/plot with houses/apartment under its public housing scheme. As on 1981-82 about 8053 persons have registered their names under this scheme. Under this Scheme 90 hectares of land has been acquired at a cost of Rs. 175 lakhs. Under the 'Plot' scheme, 40 plots have been assigned to allottees and under the 'Plot with house' scheme, 29 houses were completed and assigned to allottees and 523 houses were nearing completion. Similarly, under the 'flat' scheme construction of 576 houses were in progress. Under its housing loan scheme the Board has sanctioned upto 1980-81 loans for house construction to 13,925 persons of which 12,150 houses have been constructed by the end of 1980-81. The number of houses constructed under the scheme in 1979-80 and 1980-81 were 3725 and 6600 respectively.

#### 9. Co-operative Department

9.68 The Co-operative Sector is implementing with L.I.C. and HUDCO loan finance two major housing schemes: viz:—

- (i) Co-operative Housing Scheme implemented by the Kerala State Co-operative Housing Federation through its 200 affiliated Primary Housing Societies; and

- (ii) Aided self-help co-operative housing scheme for economically weaker sections, implemented by the Housing Board through the Kerala State Co-operative Bank.

9.69 Under the Co-operative Housing Scheme the Co-operative Housing Federation have sanctioned 15654 loans involving an amount of Rs. 2533.50 lakhs from 1971-72 to 1981-82 out of which 9016 houses have been completed by 1981-82. The Federation has introduced a new scheme called the "Graha Sampadya Padhathi" by which the people can save money by themselves for the construction of a new house before availing themselves of the loans from the Federation. In this account the Federation has so far collected an amount of Rs. 14.62 lakhs through 98 Societies.

9.70 Under the Aided self-help Co-operative Housing Scheme for economically weaker sections, 4705 houses have been constructed during 1981-82 at a loan finance of Rs. 238.95 lakhs. Construction of 24,515 houses is in good progress and the anticipated achievement during 1982-83 is 6500 housing units at a loan finance of Rs. 710.39 lakhs.

#### 10. Fishermen's Housing Programme

9.71 Under its various housing programmes, the Fisheries Department has constructed as on 31-3-1982 a total number of 5861 houses. With the formation of the Kerala Fishermen's Welfare Corporation in 1978, the housing programmes for Fishermen are being implemented through this Corporation and the Department is only attending to the spillover works. The Corporation has launched in 1978-79 a housing programme for the construction of 10,000 houses (Phase I) at a unit cost of Rs. 4000. Out of this Rs. 4000 Rs. 2000 is subsidy from Government and the remaining Rs. 2000 is repayable with 5.5 per cent interest in 180 equal monthly instalments. By the end of 1982, 9600 houses have been completed under the (Phase I) Scheme.

9.72 During 1981-82 the Corporation started another scheme for the construction of 10,000 houses at a unit cost of Rs. 5,000. Out of this Rs. 5000, Rs. 2000 is subsidy from Government and the balance of Rs. 3000 is repayable with 5.5 per cent interest in 180 equal monthly instalments. By the end of 1982, a total number of 3500 houses have been completed under the (Phase II) Scheme.

9.73 In September 1979 Government have sanctioned the establishment of two separate Townships in Vizhinjam for the rehabilitation of the fishermen to be evicted from the Kovalam-Vizhinjam Fishing Harbour Project Area, at an estimated cost of Rs. 400 lakhs. The Townships are:—

1. Fisheries Township at Pulloorkonam; and
2. Fisheries Township at Thennoorkonam.

The scheme is being implemented by the Kerala Fisheries Welfare Corporation on an agency basis. The target originally fixed was for the construction of 2000 houses over an area of 50 hectares of land with all infrastructure facilities. For this purpose an amount of Rs. 8.83 lakhs and Rs. 18.00 lakhs respectively were released during 1980-81 and 1982-83. (No fund was released during 1981-82). The Corporation has incurred an expenditure of Rs. 7.15 lakhs, Rs. 13.45 lakhs and Rs. 3.70 lakhs respectively during 1980-81, 1981-82 and 1982-83 on this account. An area of 15.44 hectares has been acquired so far and the construction of 50 houses at Thennoorkonam Township area and 115 houses at Pullorkonam area have been completed and handed over to the flood-victim families and victims of fire mishap that took place on 3-9-1982 at Vizhinjam. Construction of another 100 houses at Pulloorkonam area is in good progress. Now, the Corporation, at the instance of Government, is seeking institutional finance for the completion of the Project.

#### 11. Housing Programmes of the Development Authorities

- (i) Greater Cochin Development Authority (G.C.D.A)

9.74 The major housing schemes sponsored by G.C.D.A. are the following:—

- (a) Elamkulam West (Panampilly Nagar)
- (b) Elamkulam West Extension
- (c) Kaloor Housing Scheme
- (d) Thrikkakara-Pattupurackal (Mavelipuram)
- (e) Elamkulam North (Gandhi Nagar)
- (f) Thottakkattukara-Alwaye
- (g) Rameswaran West
- (h) Alwaye Housing Scheme
- (i) Vicinity Area of Alwaye Housing Scheme
- (j) Elamkulam East Extension
- (k) Kadavanthra East
- (l) Vaduthala Housing Scheme
- (m) Parur Housing Scheme
- (n) Koovapadam Housing Scheme.

9.75 Under its various housing schemes the G.C.D.A. has constructed 1633 houses during 1980-81 for which Rs. 700.76 lakhs was spent. The anticipated achievement during 1981-82 was 7722 houses at a cost of Rs. 982.74 lakhs. Details are given in Table 9.9.

TABLE 9.9  
Details of Housing Schemes under the Greater Cochin Development Authority

(Rs. in lakhs)

Item	Achievement					
	Upto 1979-80		1980-81		1981-82 (anticipated)	
	Physical (Nos.)	Financial	Physical (Nos.)	Financial	Physical (Nos.)	Financial
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. No. of Houses/Flats Constructed						
(a) Slum Houses	..		445		1000	
(b) E.W.S.	..		292		5100	
(c) L.I.C.	..		590		824	
(d) M.I.C.	148		292		520	
(e) H.I.C.	..	65.00	..	700.76	..	982.74
(f) Houses for Working Journalists	..	..	14		14	
(g) Marine Drive Flats	..	..	..		204	
Total	148	65.00	1633	700.76	7722	982.74

## (ii) Calicut Development Authority

9.76 The Calicut Development Authority has evolved a massive housing programme by acquiring necessary land and developing it with all infrastructure facilities in different areas coming under the jurisdiction of the Authority. During the year under review, the Authority has acquired an extent of 2.31 hecatres of land in Karaparamba and developed it with infrastructure facilities. Sixty two plots were sold out by outright sale. The expenditure on the scheme was Rs. 19 lakhs.

## 12. Other Agencies

9.77 In addition to the above, agencies such as the Kerala State Financial Enterprises Limited, the L.I.C. of India, the Commercial Banks etc. are also providing financial assistance for houses construction.

## (a) Kerala State Financial Enterprises

9.78 Under its hire purchase scheme started in 1979-80 the Kerala State Financial Enterprises

provides loan finance up to a maximum of Rs. 25,000 to middle and low income group people for the extension and improvement of existing houses. During 1981-82 he Enterprises has sanctioned 64 loans involving Rs. 12.05 lakhs.

## (b) L.I.C. of India

9.79 Upto 1981-82 the Trivandrum and Kozhikode Divisions of the L.I.C. of India have financed the construction of 2347 houses involving an advance of Rs. 737.18 lakhs, under their loan schemes for the benefit of their employees and the general public. (This includes one loan of Rs. 15 lakhs granted to M/s. Gwalior Rayons for construction of houses for their employees prior to 1980-81). During 1981-82, the number of houses constructed under these schemes was 119 involving an expenditure of Rs. 65.66 lakhs.

9.80 Details of housing programmes of the various implementing agencies are furnished in Table 9.10

TABLE 9.10  
Number of Houses Constructed—Physical and Financial Achievements

Details of Schemes and Agency	1979-80		1980-81		1981-82	
	Physical (Nos)	Financial (Rs. lakhs)	Physical (Nos.)	Financial (Rs. lakhs)	Physical (Nos.)	Financial (Rs. lakhs)
	(1)	(2)	(3)	(4)	(5)	(6)
I. Housing Schemes implemented by the Board of Revenue						
1. Low Income Group Housing Scheme	183	25.61	180	18.16	262	22.67
2. Middle Income Group Housing Scheme	174	41.62	232	62.98	565	86.83
3. Village Housing Project	473	24.39	640	53.53	645	31.69
4. Construction of Houses to rural workers	1098	11.25	8065	205.01	4053	191.39
5. Provision of Rural House Sites (Area and Amount Involved)	178(A) 27(C) .098Sq links (Land)	70.72	211(A) 67(C) (Land)	102.73	163(A) 16(C) 0.434(I) (Land)	90.22
6. Settlement of Agricultural Labourers	811	4.16	865	3.64	367	2.40
Sub Total	2739(+) (Land)	177.75	9982(+) (Land)	446.05	5892(+) (Land)	425.20

(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>II. Co-operative Housing Schemes</b>						
1. Co-operation Housing Scheme (Federation)	1364	348.20	962	579.73	1608	518.91
2. Aided Self Help Co-operative Housing Scheme for Economically Weaker Sections	18046	670.32	7634	383.74	4705	238.95
Sub Total II	19410	1018.52	8596	963.47	6313	757.26
<b>III. Housing Scheme of the Housing Board</b>						
A. Houses/Flats Constructed under Public Housing Schemes	477	157.04	489	170.05	500	350.00
B. Houses Constructed under Loan Schemes	3725	N.A.	6600	..	..	..
C. Special Schemes (Housing Schemes of the Government Implemented by Housing Board)						
(i) Housing Schemes for Economically Weaker Sections in Urban Areas	1794	69.00	35	1.22	..	..
(ii) Housing Schemes for Economically Weaker Sections with G.I.C. Loan	221	15.25	705	25.00	123	10.35
(iii) Chenkalchoola Slum Clearance Scheme	160	18.00	Spill over works	2.00	Stage III in progress	11.00
(iv) Housing Loan Scheme with Kerala Toddy Welfare Fund Board Loan	981	148.13	468	76.87	77	35.17
(v) Bank Loan Schemes for Construction of Houses	1800	56.00	3000	90.00	2900	87.00
(vi) Composite Housing Scheme	1100	N.A.	1680	172.37	1210	116.73
(vii) Housing Scheme for flood victims	111	15.95	46	7.05	24	2.00
(viii) Housing Scheme for working Journalists	..	0.46	14	3.74	..	..
(ix) Rental Housing Scheme	..	..	..	..	In progress	100.00
Sub Total III	10369	479.83	13037	548.30	4834	712.25
IV. House construction advance to Government Servants Sanctioned by the Finance Department	N.A.	298.41	N.A.	400.00	N.A.	200.00
<b>V. Housing Schemes of the Tribal Welfare Department</b>						
(i) General housing Scheme	564	5.90	1945	34.63	273	34.53
(ii) Colonisation	48	2.30	..	..	..	..
(iii) Hamlet Development	151	6.04	147	5.88	136	6.53
(iv) Tribal Area Sub Plan (Special Central Assistance)	40.0	10.00	382	16.85	31	8.41
Sub Total V	803	24.24	2474	57.36	440	49.47
VI. Housing Schemes of the Harijan Welfare Department	423	40.49	375	92.24	1892	75.83
<b>VII. Housing Schemes of the Development Corporation for SC and ST</b>						
(i) Housing Scheme No. I (2200 houses at a unit cost of Rs. 5000)	5	0.06	1	0.02	..	..
(ii) Housing Scheme No. II (Low cost subsidised 10,000 houses at a unit cost of Rs. 3000)	6082	204.76	2652	24.89	423	2.95
(iii) Housing Scheme No. III (to Harijan employees engaged in unclean occupation (100 houses at a unit cost of Rs. 7000)	32	0.30	16	0.90	9	0.34
(iv) Housing Scheme No. IV (10,000 houses at a unit cost of Rs. 3984)	..	..	..	24.95	5533	321.53
Sub Total VII	6119	205.12	2669	50.76	5965	324.82

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
VIII. Housing Schemes of the Fishermen's Welfare Corporation		386	266.00	4554	134.00	5700	167.50
IX. Housing Schemes of the Fisheries Department							
(i) Housing and Colonisation Scheme		1161	3.78	13	2.75	86	2.76
(ii) Housing Grant Scheme		3650		..			
(iii) Housing for sea erosion victims		452		..			
X. Housing Schemes implemented by the P.W.D.							
(a) Rental Housing Scheme		..	27.30	10 (works)	61.48	15 (works)	73.29
(b) Quarters to Govt. Servants		..	34.40	9 (Works)	27.42	10 (Works)	41.30
XI. Police Housing Scheme							
(a) Barracks for men		100	65.26	100	56.52	100	41.50
(b) Family Quarters		142		111		112	
XII. Housing Schemes of Development Authorities							
(a) Greater Cochin Development Authority		148	65.00	1633	700.76	7722	982.74
Sub Total VIII to XII		6039	461.74	6430	982.93	13745	1309.09
Grand Total I to XII		45902(+) Land	2706.10	43563 (+)Land	3541.11	39081 (+Land)	3853.92

Note: \*Provisional.

Land (+) Acre, Cent, Squire links.

(+) Plus

Excluding Housing Board, and Greater Cochin Development Authority who have not furnished the details. Physical Achievement of the Finance Department has also not been furnished.

N. A. Not Available.

### Urban Development

9.81 The major agencies concerned with the development programmes of the urban local bodies and development authorities in the State are the Government Departments of Town Planning and Municipal Administration and the Kerala Urban Development Finance Corporation. The Town Planning Department is mainly concerned with the preparation of development plans for the urban areas and fast developing regions in the State. The Department of Municipal Administration and the Kerala Urban Development

Finance Corporation provide the bulk of the finances required for the implementation of the non-remunerative and remunerative development programmes respectively of the urban local bodies and development authorities.

9.82 The expenditure under these three agencies under plan and non-plan accounts is anticipated to be of the order of Rs. 927.89 lakhs during 1982-83 compared to Rs. 619.78 lakhs during the previous year (Table 9.11)

TABLE 9.11  
Expenditure under Urban Development from 1980-81 to 1982-83 (anticipated)

Agency	(Rs. lakhs)								
	Plan			Non-Plan			Total Plan & Non-Plan		
	1980-81	1981-82	1982-83	1980-81	1981-82	1982-83	1980-81	1981-82	1982-83
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Expenditure of the Town Planning Department	31.68	44.18	218.29	28.26	23.94	35.51	59.94	68.12	253.80
2. Expenditure of the Department of Municipal Administration	203.00	221.00	157.00	84.73	102.75	147.32	287.73	323.75	394.32
3. Total Amount Disbursed to Urban Local Bodies by the Kerala Urban Development Financial Corporation	213.02	227.91	279.77	..	..	..	213.02	227.91	279.77
Total	447.70	493.09	655.06	112.99	126.69	182.83	560.69	619.78	927.89

Source: 1. Chief Town Planner.  
2. Director of Municipal Administration.  
3. Urban Development Finance Corporation.

(i) *Town and Country Planning*

9.83 The Department of Town Planning with its 7 District Planning Units, 3 Regional Planning Units and 13 special cells/units engaged itself fully in the preparation of Master Plans and Development Plans for Urban Local Bodies in the State during the year under review, besides giving guidance to the statutory development Authorities and local bodies in the State in the matter of enforcement and implementation of development plans.

9.84 The scheme, "Preparation of Master Plan for Angamaly" was taken up during 1981. In addition, Government have sanctioned the following schemes/units during 1981.

(i) Special project division for slum and small towns and

(ii) District Planning Unit, Alleppey:

9.85 The District Planning Unit, Alleppey, however has not yet started functioning for want of sufficient staff. The Department of Town Planning has drawn up a massive programme for slum clearance/improvement covering major slums in all Municipal Towns and Corporations in the State, with a time bound programme of eradicating slums within a period of ten years at a total cost of Rs. 20 crores. Under this scheme, the following 15 Town/Corporation areas have been taken up for slum clearance/improvement and are under various stages of implementation by the respective local bodies.

*Name of Towns/Corporation Name of Slum*

1. Trivandrum	: Karimadom
2. Quilon	: S.M.P. Palace area
3. Kayamkulam	: Fish market area
4. Kottayam	: Savakottah
5. Idukki	: Cheruthoni
6. Tellicherry	: Chalil
7. Calicut	: Near Muslim Cemetery
8. Chalakudy	: Tramway lane
9. Thodupuzha	: Town Centre

*Name of Towns/Corporation Name of Slum*

10. Alleppey	: Komady
11. Cochin	: Pipe line colony
12. Cannanore	: Thayyil
13. Irrinjolakuda	: Canal basin
14. Badagara	: Pandikasala
15. Thiruvalla	: Pannithadom

9.86 The Town Planning Department has identified 24 small and medium towns in the State for Central Assistance under the scheme, "Improvement and Development of Small and Medium Towns". So far Project reports were prepared and forwarded to Government of India for consideration for 12 towns viz., Guruvayoor Kottayam, Trichur, Changanacherry, Kayamkulam, Tellicherry, Tirur, Badagara, Malappuram, Perumbavoor, Alwaye and Parur. Out of these the Government of India have provided financial assistance to the Guruvayoor and Kottayam towns during 1979-80 and 1981-82, to Trichur during 1980-81 and 1982-83, to Kayamkulam and Tellicherry during 1980-81, to Tirur during 1980-81, 1981-82 and 1982-83, to Badagara and Malappuram during 1981-82; and to Changanacherry during 1980-81 and 1981-82.

9.87 A project on site selection methodology for locating industries in rural areas sponsored by the Department of Science and Technology, Government of India is over. The draft report on the Project is nearing completion.

9.88 The State Town and Country Planning Board constituted with the Chief Minister as Chairman, continued to function during the year under review. The Kerala Town and Country Planning Bill presented before the Legislative Assembly is pending enactment.

9.89 Financial assistance for urban local bodies and development authorities for implementation of their remunerative and non remunerative urban development programmes are provided by the Chief Town Planner, the Director of Municipal Administration and the Kerala Urban Development Finance Corporation. Table 9.12 lists the major schemes under which such assistance is provided. The financial assistance provided by these three agencies under plan and non-plan account in 1982-83 is anticipated to be Rs. 578.22 lakhs as against Rs. 558.95 lakhs during 1981-82.

TABLE 9.12

*Financial Assistance to Urban Local Bodies and Development Authorities for Urban Development (Plan and Non-Plan)*

Name of Scheme	Financial Agency									Total			
	C.T.P.			D.M.A.			KUDFC						
	1980-81	1981-82	1982-83	1980-81	1981-82	1982-83	1980-81	1981-82	1982-83	1980-81	1981-82	1982-83	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
1. Assistance to Planning and Development Authorities for the Implementation of Development Plans (Plan)	10.00	16.00	12.00	..	..	..	..	..	..	..	10.00	16.00	12.00

(Rs. in lakhs)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2. Assistance to Development Authorities for Urban Environmental Improvement, Land Acquisition, Creation of Planning and Development Authorities and Development and Growth Centres (Plan)	13.50	8.75	4.00	..	..	..	..	..	..	..	13.50	8.75	4.00
3. Assistance for Improvement and Development of Small, Medium and Intermediate Towns (Centrally Sponsored Plan)	..	..	..	132.00	150.00	86.00	..	..	..	..	132.00	150.00	86.00
4. Assistance to Urban Local Bodies for Non-remunerative Works (Plan)	..	..	..	6.01	7.00	6.00	..	..	..	..	6.01	7.00	6.00
5. Assistance to Urban Local Bodies for Slum Improvement (Plan)	..	..	..	65.00	65.00	65.00	..	..	..	..	65.00	65.00	65.00
6. Grant Assistance to Urban Local Bodies (Non-Plan)	..	..	..	70.16	84.29	125.45	..	..	..	..	70.16	84.29	125.45
7. Assistance to Urban Local Bodies for Remunerative Works (Plan)	..	..	..	..	..	..	213.02	227.91	279.77	213.02	227.91	279.77	279.77
Total	23.50	24.75	16.00	273.17	306.29	282.45	213.02	227.91	279.77	509.69	558.95	578.22	578.22

Source: Items 1 & 2 Chief Town Planner (C.T.P.)  
 Item 3 to 6 Director of Municipal Administration (D.M.A.)  
 Item 7 Kerala Urban Development Finance Corporation (K.U.D.F.C.)

(ii) *Urban Development Programmes under Municipal Administration*

9.90 The Department of Municipal Administration provides financial assistance under plan and non-plan schemes to urban local bodies for their non-remunerative development programmes. The total financial achievement under plan and non-plan schemes of the Department of Municipal Administration for 1982-83 (anticipated) is Rs. 394.32 lakhs (Rs. 157 lakhs under plan), as against Rs. 323.75 lakhs (Rs. 221 lakhs under plan) during 1981-82 (Appendix 9.44). Under the scheme for improvement and development of small, medium and intermediate towns, an expenditure of Rs. 86 lakhs is anticipated during 1982-83 for assisting the ongoing projects. Under the Plan scheme for non-remunerative works of the urban local bodies an expenditure of Rs. 6 lakhs is anticipated during 1982-83. The scheme will benefit 7 urban local bodies.

9.91 The non-plan grant assistance to urban local bodies for general purpose and specific purposes is anticipated to increase from Rs. 84.29 lakhs during 1981-82 to Rs. 125.45 during 1982-83. Similarly, the expenditure under the schemes slum clearance/improvement is anticipated to be of the order of Rs. 65 lakhs during 1982-83 against an expenditure of Rs. 65 lakhs during 1981-82. The number of beneficiary local bodies under the scheme has also increased from 14 in 1981-82 to 15 in 1982-83.

(iii) *Kerala Urban Development Finance Corporation*

9.92 Kerala Urban Development Finance Corporation Ltd., is a Company incorporated in the year 1970, for rendering financial assistance to urban local bodies for their developmental activities. More than 51 per cent of shares is held by the Government of Kerala and the rest by the urban local bodies consisting of 42 Municipalities, 3 Municipal Corporations, 3 Development authorities and the Township at Guruvayur. As on 31-12-1982 the contribution of the Government towards share capital was Rs. 24.85 lakhs and that of urban local bodies Rs. 23.45 lakhs. The Company was converted into a public limited Company on 17-12-1982.

9.93 Working capital for the Company is obtained through the floatation of debentures every year. A total loan of Rs. 13.88 crores has been raised by the Company by floating debentures.

9.94 As on 31-3-1982 the Corporation has rendered loan assistance amounting to Rs. 17.31 crores to 42 urban local bodies for taking up 302 schemes. Further it proposes to give a loan of Rs. 2.80 crores to 40 urban local bodies for 68 schemes during 1982-83. By 30th November, 1982 the Corporation disbursed a total loan of Rs. 1.61 crores.



9.95 In order to attain professional competence by the employees in the Municipal Common Service, regular training courses are being conducted in the Centre for Urban Studies at Trivandrum which is a unit of this Corporation. Further the Corporation is in the process of standardising all forms and registers for the urban local bodies and printing them in the regional language. About 76 such forms and registers have been standardised and arranged for supply to urban local bodies.

9.96 Since its inception 13 years ago, the Corporation has so far disbursed Rs. 18.92 crores as on 30-11-1982 as loans to urban local bodies. Out of the 302 schemes financed till 31-3-1981, 256 schemes have been completed and commissioned. Except for a very few, all the remunerative schemes are generating reasonable income ranging from 12 per cent to 50 per cent of capital cost.

(iv) *Development Authorities*

9.97 In order to ensure planned and balanced growth of cities, towns and its suburbs the following Development Authorities have been formed in the State:—

- (1) Greater Cochin Development Authority
- (2) Calicut Development Authority
- (3) Trivandrum Development Authority
- (4) Kottayam Development Authority
- (5) Trichur Development Authority
- (6) Quilon Development Authority
- (7) Idukki Development Authority; and
- (8) Palghat Development Authority.

The activities and achievements of the Development Authorities are reviewed below:

(a) *Calicut Development Authority*

9.98 The Calicut Development Authority was formed in 1980, as a successor body to the Calicut Town Planning Trust (formed in 1973) with statutory powers for the speedy implementation of the various schemes envisaged in the Master Plan and detailed town planning schemes prepared for priority areas and the control and integration of developmental activities of the area within its jurisdiction. The area of operation of the Authority consists of the Calicut Corporation and the eleven panchayats surrounding it.

9.99 A large number of developmental schemes are being prepared and implemented by the Authority under the following developmental sectors:—

- (i) Traffic and Transportation Schemes.
- (ii) Housing Schemes.
- (iii) Commercial Schemes.
- (iv) Other Developmental Works.
- (v) Developmental Schemes in Panchayat Areas.

9.100 The following are the major achievements of the Authority during 1982-83. The Authority has acquired during the year an area of 2.31 hectares of land at Karaparamba and developed it with infrastructure facilities. Out of this, 62 developed plots covering an area of 3.91 acres have been sold out by outright sale. The total expenditure of the scheme is Rs. 19 lakhs. The Authority has acquired the necessary land during the year for the construction of a new link road connecting the Kallai and Railway Station roads. It has also acquired during the year, the required land at a cost of Rs. 2.30 lakhs to widen the Ram Mohan Road to a width of 18 metres.

9.101 The construction of the four-storeyed building by the side of the proposed road B1-B1 in ward 13 costing Rs. 50 lakhs is in progress. Construction of 3 floors has been completed and an expenditure of Rs. 20 lakhs has been incurred so far, including cost of acquiring 50 cents of land. Many of the development works of the Authority are being held up due to paucity of funds.

(b) *Quilon Development Authority*

9.102 The Quilon Development Authority constituted in 1981 started functioning effectively by the middle of 1982. The Authority proposes:

- (i) to acquire a total area of about 17.5 hectares of land in three locations viz;—

- (a) Ramankulangara
- (b) Pattathanam; and
- (c) Mundakkal, and to develop the same for residential sites to be sold out to the public as plots

- (ii) to prepare detailed town planning schemes for Ramankulangara, Pattathanam and Mundakkal;
- (iii) to Construct Road from Taluk Office junction to Civil Station;
- (iv) to develop a commercial complex at Thamarakulam and
- (v) to prepare a slum improvement scheme for Vayalil Thope Colony.

9.103 Further the Authority has prepared a traffic improvement scheme for the central area of Quilon town, a slum improvement scheme for Polayathode Scavenger Colony and a junction improvement scheme for Taluk Office Junction.

(c) *Trichur Development Authority*

9.104 The Trichur Development Authority covering the Trichur Municipal area and Ayyanthole, Ollur, Nadathara and Vilvattom Panchayat areas was constituted in 1981. The Authority has notified detailed town planning schemes for Kannankulangara Kovilakathu Padam and Puzhakkal Padam areas. The

Authority proposes to acquire about 10 acres of land at Kannankulangara for developing a public park, commercial complex, residential building, buildings for public and semi-public uses and for roads.

**(d) Kottayam Development Authority**

9.105 The Kottayam Development Authority was constituted in July 1981. The Authority has formulated detailed town planning schemes for the Boat Jetty area and for the area south of the Medical College at an estimated cost of Rs. 120 lakhs and Rs. 70 lakhs respectively.

**(e) Palghat Development Authority**

9.106 The Palghat Development Authority has prepared schemes for developing residential areas in Fort East and Fort West areas of Palghat Town, for developing commercial complex in Vettilakulam area and for forming a link road connecting the College Road and the Railway Station Road.

**Mass Communication**

9.107 The popular mass communication media in the State include radio, television, films, the press, publications, advertising, folk dances, drama, etc. The Public Relations Department of the State has a large mass communication set up with regional and branch offices as well as mobile units spread all over the State.

**Radio and Television**

9.108 As part of the All India Radio net work, 4 radio stations are operating in the State at Trivandrum, Alleppey, Trichur and Calicut. By the end of December 1979 there were 1,262,609 licenced broadcast receivers (radios) and 63 licenced television sets in the State. Under the scheme for the distribution of community listening sets at subsidised rates/free of cost for installation at harijan predominant areas and tribal centres, 42 community listening sets were distributed during 1981-82 as against 52 sets during 1980-81. The anticipated achievement during 1982-83 is 50 sets.

**Films**

9.109 The production of Malayalam feature films has been increasing phenominally over the years. The annual production of Malayalam films which stood at 7 in 1951 has increased to 145 in 1980. However, in the past, most of the Malayalam feature films were produced outside the State especially in Madras. In order to encourage production of feature films in Kerala, Government has introduced an incentive scheme of awarding subsidy to Malayalam feature films shot fully in Kerala. This incentive scheme has started yielding results. The annual number of Malayalam feature films shot fully in Kerala has been increasing over the years since the introduction of the incentive scheme. Subsidy to the

tune of Rs. 36.5 lakhs has been disbursed at the rate of Rs. 50,000 each for feature films and Rs. 10,000 each for documentary films during 1981-82.

9.110 The Public Relations Department has produced two documentary films during 1981-82 for public exhibition, at a cost of Rs. 2 lakhs. With the film prints received from the Films Division of the Government of India the Department organised 1200 film shows during 1981-82 year as against 1300 in 1980-81.

9.111 For the promotion of Malayalam film art the State Government has instituted awards for excellence in various fields of Cinema and twenty awards are given every year at the Annual Film Award Fair. In addition, as a welfare measure, Government have introduced a Welfare Fund for Cine Artistes. Under this scheme 81 cine artistes or their dependents in indigent circumstances are in receipt of monthly pensions ranging from Rs. 100 to Rs. 250 during the year.

**Press**

9.112 The press continued to be the most important communication medium in the State. By the end of 1980, there were 915 newspapers in the state consisting of 96 dailies, 1 trijibi weekly, 126 weeklies, 101 fortnightlies, 496 monthlies, 55 quarterlies, 11 annuals and 29 publications of other periodicity. A language-wise analysis of the newspapers shows that out of the total number of 17163 newspapers in India, as much as 697 were in Malayalam. These Malayalam newspapers had a total circulation of 40.07 lakhs in 1978-79 of which circulation of dailies was 12.73 lakhs. Between the years 1977-78 and 1978-79 the circulation of newspapers in Malayalam has registered an increase of 27.3 per cent as against 11.4 per cent for all languages in India.

9.113 As a major step aimed at building up a healthy and responsible press in the State, Government have established a Press Academy at Ernakulam as an autonomous institution. A three acre plot has been acquired at Thrikkakara for construction of a building complex for the Academy. Construction of the building complex is in progress. Upto 1981-82 Government have given a grant of Rs. 11.75 lakhs to the Academy for its various activities. The anticipated assistance to the Academy in 1982-83 is Rs. 8 lakhs.

9.114 The Academy has conducted a workshop for the senior journalists at Calicut in October 1982. Thirty senior journalists from various newspapers in Kerala participated in this workshop. A Seminar on "Trend in Information Technology" was conducted at Kottayam in December 1982 with the co-operation of American Centre, Madras. A one day workshop for mofussil correspondents of Trichur District was conducted at the Press Club, Trichur, in January

1983 with the co-operation of the Press Club, Trichur. Fifty-three mofussil correspondents of various newspapers participated in this workshop. The Academy and the Kerala Sahithya Academy jointly organised a symposium and a meeting at Calicut in October 1982 in connection with the birth centenary of late M.R.K.C., writer and journalist. A book on Swadeshbhimani Ramakrishna Pillai, a guide, for mofussil correspondents, and a book entitled "Pathrabhasha" are under print under its scheme for production of books. The Academy is also publishing a cyclostyled bilingual monthly digest of articles, reports etc., by name 'Media Digest' for the benefit of media men. One hundred and eighty books were added to the library of the Academy during 1982. The number of volumes on journalism and allied topics in the library of the Academy has increased from 200 in 1979-80 to 940 during the current year.

9.115 To facilitate better press coverage, the accredited press correspondents in the State are given free travel facilities in State Transport Buses. Press tours are arranged by the Public Relations Department to areas of developmental and cultural importance in the State to ensure press coverage on topics of interest. This year a team of sports correspondents were taken to Delhi to cover the trial games organised in connection with the IX Asiad. Inter-State exchange of journalists is also arranged to project the image of the State and to ensure national integration.

9.116 In order to ensure the welfare of the working journalists various measures have been taken by the Government. These include housing accommodation and pension to working journalists. The Kerala State Housing Board has taken up a housing scheme exclusively for the benefit of the working journalists. One hundred and nineteen working journalists|their dependents in indigent circumstances were given pension during 1981-82 from the Welfare Fund for working journalists.

#### *Publicity*

9.117 The Public Relations Department issued 9000 press handouts during 1981-82. The anticipated achievement in 1982-83 is 9500. 'Janapatham', the monthly malayalam magazine, and the English monthly "Kerala Calling" continued to be published during the year.

9.118 The Public Relations Department published 25 publications including folders, pamphlets, brochures, booklets and other books in 1982.

9.119 Besides conducting several rural exhibitions through the Public Relations Department, the State Government participated in the India International Trade Fair, 1982 held at New Delhi. The Public Relations Department acted as the co-ordinating Department. An expenditure of Rs. 15 lakhs has been incurred for the Trade Fair participation.

9.120 During the year (upto 12/82) an expenditure of Rs. 1.9 lakhs has been incurred on display advertisements and a sum of Rs. 50 lakhs on routine advertisements. The total anticipated expenditure on advertisements during 1982-83 is Rs. 65 lakhs.

#### *Cultural Activities*

9.121 Under the scheme for the grant of awards to professional Malayalam drama, 15 dramas were staged and awards were distributed during the year. A cultural programme was arranged in connection with the 'Kerala Day' at International Trade Fair 1982, at Delhi. The State Government has arranged cultural programmes such as Panchavadyam, Theyyam and Kathakali at the inaugural ceremony of the IX Asiad at New Delhi during November, 1982. The State Government has also organised a show of caprisioned elephants with traditional instrumental music of Kerala as a part of the cultural pageantry. Under the scheme for inter-State exchange of cultural troupes a team of artistes from Himachal Pradesh was received during the year.

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

##### *Scheduled Castes and Scheduled Tribes Population in 1981*

9.122 According to the 1981 Census the scheduled caste population of Kerala is 25.49 lakhs which works out to 10.02 per cent of the total population and scheduled tribes population is 2.61 lakhs which works out to 1.03 per cent of the total population. There have been substantial changes in the list of scheduled castes and scheduled tribes adopted in the 1981 Census as compared to the list adopted in the 1971 Census because of the modifications brought about in 1976 by the Scheduled Caste and Scheduled Tribes (Amendment) Act, 1976 (Central Act No. 108 of 1976). While the scheduled caste and scheduled tribe population as per the 1971 Census was 17.72 lakhs and 2.69 lakhs respectively, the estimated population of scheduled caste scheduled tribe in 1971 based on the 1976 Amendment worked out to 20.02 lakhs and 1.93 lakhs respectively. Based on these updated figures, the growth rate of scheduled caste population of 1971-81 is 27.32 per cent and that of scheduled tribe population is 35.23 per cent. The population of scheduled castes and scheduled tribes together is 28.11 lakhs in 1981 as against 20.41 lakhs in 1971 which means an increase of 37.68 per cent as compared to the general population growth rate of 19.24 per cent for the decade. The district-wise distribution of scheduled caste|scheduled tribe population in Kerala is given in Appendix 9.62.

9.123 The scheduled castes in Kerala are dispersed all over the State but the largest concentrations are in Palghat and Quilon Districts.

9.124 The percentage distribution of scheduled castes in rural-urban structure according to 1981 Census is 87.86 and 12.14 while that of scheduled tribes are 98.09 and 1.91 respectively. The details of district-wise rural-urban distribution of Kerala's scheduled caste and scheduled tribe population is shown in Appendix 9.63.

9.127 The percentage of literacy among scheduled castes and scheduled tribes according to 1971 Census are 40.21, and 25.72 respectively as against the general literacy rate of 60.42 in the State as a whole. (1981 Census figures are not finalised). The literacy among S. C. in Kerala is much higher than that in any other States in India. The enrolment ratio of S. C. in primary classes has reached a par with that of the forward communities of the State. Nearly 12 per cent of the total school going students and 8 per cent of the college students represent S. C. and S. Ts. admitted in the various schools and colleges during the year 1981-82. The enrolment of S. C. and S. T. school going students had registered an increase of 1.53 per cent during the year. The total S. C./S. T. school students increased to 6.78 lakhs in 1981-82 from 6.68 lakhs in 1980-81. The details of students belonging to S. C. and S. T. during 1981-82 is shown in Table 9.13.

TABLE 9.13

*Number of Students Belonging to S.C./S.T. in Kerala 1981-82*

Class	No. of S.C. Students	No. of S.T. Students	Total
1. Lower Primary	301347	24677	326024
2. Upper Primary	197538	10749	208287
3. Secondary	138050	5889	143939
Total	636935	41315	678250

9.126 The enrolment of S. C. and S. T. in various colleges has registered an increase of 6 per cent during the year 1981-82. It has increased to 20502 from 19362. The details of S. C. and S. T. students in colleges during 1981-82 is shown in Table 9.14.

TABLE 9.14

*Number of College Going S.C. and S.T. Students in Kerala 1981-82*

Class	No. of S.C. Students	No. of S.T. Students	Total
(1)	(2)	(3)	(4)
1. Pre-Degree	15380	801	16181
2. Degree	3805	243	4048
3. Post-graduate	253	20	273
Total	19438	1064	20502

Provisional Figures.

9.127 The district-wise enrolment of S. C. and S. T. students in schools and colleges during 1981-82 are given in Appendix 9.52 and 9.53 respectively.

9.128 The problem of educated unemployment among S. C. and S. Ts. is as severe as in the case of rest of the community. The Live Register data of the Employment Exchanges show that there were 156,440 S. C. and 6,681 S. Ts. job seekers as at the end of September 1982. Nearly 13 per cent of the S. C./S. T. job seekers has increased during the year. The total registrants of S. C. and S. T. has increased from 144,875 (31-10-1981) to 163,121 (30-9-1982). Among these registrants those with the qualification of S. S. L. C. and above constitute nearly 35 per cent. Of the total 163,121 educated unemployed, 1463 are graduates and 71 are having post-graduation qualifications. The distribution of job seekers as on 30-9-1982 by educational level is presented in Appendix 9.66.

9.129 The socio-economic status of the S. C. and S. Ts. lags behind the other sections of the society. As suggested by the Government of India "Special Component Plans" are being formulated setting apart at least 10 per cent of the developmental outlay exclusively for the benefit of S. C. and S. T. This has resulted in allocation of higher outlays for the development of scheduled castes and scheduled tribes. Under the Special Component Plan an expenditure of Rs. 16.15 crores was incurred during 1981-82 as against Rs. 14.63 crores in the previous year. The approved special component plan outlay is Rs. 20.38 crores in 1982-83. The expenditure under special component plan for the year 1981-82 and the outlay earmarked for various programmes for 1981-82 and the physical achievement during 1981-82 are shown in Appendix 9.67 and 9.68.

9.130 The New Twenty Point Programme has played a dynamic role in providing better living standards to the less privileged sections of the population particularly S. C. and S. T. who are at the bottom of the social strata. This new programme lays special emphasis on the implementation of special component plan of S. C. and hill and tribal sub-plan of S. Ts. Under the agricultural development programme, seedlings, implements and fertilizers were distributed to 65192 S. C./S. T. families. Ten new minor irrigation schemes were completed for assured irrigation to agricultural crops. Special priority is given to S. C. and S. T. families in the matter of assistance under Integrated Rural Development Programme. The object is that at least 30 per cent of the families under I.R.D.P. is to be drawn from S. C. and S. T. families. Resources are also allocated in the same proportion. I.R.D.P. assistance was extended to 19594 S. C./S. T. beneficiaries during 1981-82 as against 10317 beneficiaries in the previous year. There was 89.92 per cent increase in the number of beneficiaries during the year, while it had covered only 28.56 per cent of the total number of I.R.D.P. beneficiaries.

Though Kerala have achieved cent per cent coverage in the electrification of the villages, there are still a number of scheduled caste bastis in the remote and backward areas and underdeveloped and tribal areas/settlements which are unelectrified. During 1981-82, 448 Harijan colonies and tribal settlements were electrified. Also 132 roads and bridges and 4300 ESP type latrines were constructed. Sixty sewerage and water supply schemes were commissioned and 18 new hospitals/dispensaries were opened in remote and inaccessible parts of the State. The expenditure and physical achievement under New 20-point programme for the Welfare of S. C. and S. T. are shown in Table 9.15.

TABLE 9.15

*Expenditure and Achievement under New Twenty Point Programme of S.C./S.T 1980-83*

Year	Expenditure (Rs. in Crores)			No. of Families Benefited		
	S.C.	S.T.	Total	S.C.	S.T.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980-81	13.36	3.58	16.94	88740	5270	94010
1981-82	16.16	4.54	20.70	78450	5450	83900
1982-83 (Proposed)	20.38	5.20	25.58	40605	3205	43810

9.131 Under land reform measures, 18,779 ha. of surplus land were distributed to 34,261 S. C. and S. T. families till the end of February 1982. This accounts for nearly 15 per cent of the surplus land distributed and 18 per cent of the total number of beneficiaries in the State. A total area of 25,789 hectares of Government poramboke land was distributed to 87353 S. C./S. T. families upto the end of February 1982. District-wise details relating to the number of beneficiaries under land reforms measures are shown in Appendix 9.69 and 9.70.

#### *Harijan Welfare Department*

9.132 During the year 1981-82, an amount of Rs. 382.641 lakhs was given to 7.8 lakhs students (including 1.52 lakhs students of O.B.Cs.) as pre-matric scholarships. Boarding grants at the rate of Rs. 75 p.m. were extended to 572 S. C. students and 65 O.B.C. students during the period. Under the adult education programme 6 study tours were conducted in remote areas. Cloth worth Rs. 1.60 lakhs was supplied to 13500 S. C. students. Special incentive grant of Rs. 0.42 lakh was provided to 357 talented S. C. students who secured 1st class marks in S.S.L.C., P.D.C. and Degree Examinations. Harijan Welfare Department is maintaining 78 welfare hostels and 17 cosmopolitan hostels for the accommodation of S. C. students and other eligible communities, and backward classes. In addition to this, 3 new welfare hostels and a cosmopolitan hostel at Kozhikode were also started during 1981-82. Fiftysix nursery schools and 147 balawadi-cum-feeding centres and one ayurveda dispensary are

functioning under the control of the Harijan Welfare Department. Twenty-two balawadi-cum-feeding centres were started out of 25 B. C. F. Cs. sanctioned during the period. An amount of Rs. 1.77 lakhs was distributed among the S. C. students studying in Medical Colleges and Engineering Colleges for the purchase of reference books, text books etc. Matching grants were extended to 35 talented students studying for post-matric courses.

9.133 There are 41 training centres and 24 production-cum-training centres under the Harijan Welfare Department. Nearly 13846 S. C. students and 308 skilled workers were trained during the period. Two new production centres were started one at Vijayaraghavapuram and another at Madhuraveli. In order to promote self employment among technically trained hands subsidy grant of Rs. 11.27 lakhs at the enhanced rate of Rs. 3000 was extended to 436 S. C. persons. To start trade and industry, interest free loan upto Rs. 10,000 per head was sanctioned to 45 S. C. entrepreneurs. Under the hire purchase scheme, of sewing machines, 53 persons availed loan of Rs. 0.25 lakh. Training in tractor-triller driving was extended to 10 S. C. beneficiaries. Share capital and working capital were extended to the tune of Rs. 17.76 lakhs to the industrial co-operative societies started by the unemployed scheduled castes trained in the departmental and other technical institutes. Six new industrial co-operative societies were formed during 1981-82. Nearly 300 ex-trainees were absorbed by the industrial co-operatives.

9.134 Under the scheme general improvement of major colonies at Nilambur and Manianthadam, 1989 houses were electrified, 1537 bath rooms and 2250 latrines were constructed during 1981-82. Interest free housing loans to 75 families and housing grants to 1713 families were sanctioned for the completion of houses undertaken during the previous years. During the year 1981-82, new housing grants were given to 450 families. Tilling grants to 611 families, and thatching grants to 9333 families were distributed. Grants for purchase of screw pine leaves at the rate of Rs. 20 were distributed to 600 families during 1981-82. Grants-in-aid of Rs. 1.54 lakhs was given to 13 institutions/organisation.

9.135 Assistance was given to 499 couples who entered into intercaste marriage during 1981-82. The flow of funds to Harijan Welfare Department and expenditure during 1981-82 is shown in Appendix 9.71.

#### *The Kerala State Development Corporation for S. C./S. T.*

9.136 This Corporation has so far given 1176 industrial loans worth of Rs. 50.24 lakhs for starting small business, trade, industry, etc. to scheduled castes and scheduled tribes during 1981-82. Loans worth of Rs. 35.18 lakhs were given to 558 persons for the purchase of land for agricultural purposes. Loan assistance of Rs. 0.80 lakh was sanctioned to one co-operative

Though Kerala have achieved cent per cent coverage in the electrification of the villages, there are still a number of scheduled caste bastis in the remote and backward areas and underdeveloped and tribal areas/settlements which are unelectrified. During 1981-82, 448 Harijan colonies and tribal settlements were electrified. Also 132 roads and bridges and 4300 ESP type latrines were constructed. Sixty sewerage and water supply schemes were commissioned and 18 new hospitals/dispensaries were opened in remote and inaccessible parts of the State. The expenditure and physical achievement under New 20-point programme for the Welfare of S. C. and S. T. are shown in Table 9.15.

TABLE 9.15

*Expenditure and Achievement under New Twenty Point Programme of S.C./S.T 1980-83*

Year	Expenditure (Rs. in Crores)			No. of Families Benefited		
	S.C.	S.T.	Total	S.C.	S.T.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980-81	13.36	3.58	16.94	88740	5270	94010
1981-82	16.16	4.54	20.70	78450	5450	83900
1982-83 (Proposed)	20.38	5.20	25.58	40605	3205	43810

9.131 Under land reform measures, 18,779 ha. of surplus land were distributed to 34,261 S. C. and S. T. families till the end of February 1982. This accounts for nearly 15 per cent of the surplus land distributed and 18 per cent of the total number of beneficiaries in the State. A total area of 25,789 hectares of Government poramboke land was distributed to 87353 S. C./S. T. families upto the end of February 1982. District-wise details relating to the number of beneficiaries under land reforms measures are shown in Appendix 9.69 and 9.70.

#### *Harijan Welfare Department*

9.132 During the year 1981-82, an amount of Rs. 382.641 lakhs was given to 7.8 lakhs students (including 1.52 lakhs students of O.B.Cs.) as pre-matric scholarships. Boarding grants at the rate of Rs. 75 p.m. were extended to 572 S. C. students and 65 O.B.C. students during the period. Under the adult education programme 6 study tours were conducted in remote areas. Cloth worth Rs. 1.60 lakhs was supplied to 13500 S. C. students. Special incentive grant of Rs. 0.42 lakh was provided to 357 talented S. C. students who secured 1st class marks in S.S.L.C., P.D.C. and Degree Examinations. Harijan Welfare Department is maintaining 78 welfare hostels and 17 cosmopolitan hostels for the accommodation of S. C. students and other eligible communities, and backward classes. In addition to this, 3 new welfare hostels and a cosmopolitan hostel at Kozhikode were also started during 1981-82. Fiftysix nursery schools and 147 balawadi-cum-feeding centres and one ayurveda dispensary are

functioning under the control of the Harijan Welfare Department. Twenty-two balawadi-cum-feeding centres were started out of 25 B. C. F. Cs. sanctioned during the period. An amount of Rs. 1.77 lakhs was distributed among the S. C. students studying in Medical Colleges and Engineering Colleges for the purchase of reference books, text books etc. Matching grants were extended to 35 talented students studying for post-matric courses.

9.133 There are 41 training centres and 24 production-cum-training centres under the Harijan Welfare Department. Nearly 13846 S. C. students and 308 skilled workers were trained during the period. Two new production centres were started one at Vijayaraghavapuram and another at Madhuraveli. In order to promote self employment among technically trained hands subsidy grant of Rs. 11.27 lakhs at the enhanced rate of Rs. 3000 was extended to 436 S. C. persons. To start trade and industry, interest free loan upto Rs. 10,000 per head was sanctioned to 45 S. C. entrepreneurs. Under the hire purchase scheme, of sewing machines, 53 persons availed loan of Rs. 0.25 lakh. Training in tractor-trailer driving was extended to 10 S. C. beneficiaries. Share capital and working capital were extended to the tune of Rs. 17.76 lakhs to the industrial co-operative societies started by the unemployed scheduled castes trained in the departmental and other technical institutes. Six new industrial co-operative societies were formed during 1981-82. Nearly 300 ex-trainees were absorbed by the industrial co-operatives.

9.134 Under the scheme general Improvement of major colonies at Nilambur and Manianthadam, 1989 houses were electrified, 1537 bath rooms and 2250 latrines were constructed during 1981-82. Interest free housing loans to 75 families and housing grants to 1713 families were sanctioned for the completion of houses undertaken during the previous years. During the year 1981-82, new housing grants were given to 450 families. Tilling grants to 611 families, and thatching grants to 9333 families were distributed. Grants for purchase of screw pine leaves at the rate of Rs. 20 were distributed to 600 families during 1981-82. Grants-in-aid of Rs. 1.54 lakhs was given to 13 institutions/organisation.

9.135 Assistance was given to 499 couples who entered into intercaste marriage during 1981-82. The flow of funds to Harijan Welfare Department and expenditure during 1981-82 is shown in Appendix 9.71.

#### *The Kerala State Development Corporation for S. C./S. T.*

9.136 This Corporation has so far given 1176 industrial loans worth of Rs. 50.24 lakhs for starting small business, trade, industry, etc. to scheduled castes and scheduled tribes during 1981-82. Loans worth of Rs. 35.18 lakhs were given to 558 persons for the purchase of land for agricultural purposes. Loan assistance of Rs. 0.80 lakh was sanctioned to one co-operative

society during the year. In order encourage harijan entrepreneurs to start industrial units in the mini-industrial estate a loan of Rs. 0.14 lakh was extended as margin money. Under margin money for bankable schemes 477 persons and under the foreign employment scheme 706 persons were assisted during the year. Similarly 1939 persons were supplied with sewing machines.

9.137 The housing scheme was the major programme undertaken by the Kerala State Development Corporation for the benefit of S. C. and S. Ts. during 1981-82. Under the Housing Scheme (No. II) of 10,000 houses, the Corporation had assisted 423 houses, to S. C./S. T. beneficiaries. The housing scheme No. III was formulated for the benefit of Harijan employees engaged in unclean occupation in the Calicut Corporation. Under the Housing Scheme No. IV (10,000 houses) an assistance of Rs. 321.533 lakhs was provided to 5533 S. C./S. Ts. The physical and financial achievement of various schemes implemented by the Corporation during 1981-82 is shown in Appendix 9.72.

#### *Welfare of Scheduled Tribes*

9.138 According to the 1981 Census the tribal population of Kerala was 2.61 lakhs, as against 1.69 lakhs in 1971 (revised estimate). Though all the districts in Kerala account for some tribal concentration, Wynad ranks first and Cannanore second. Trichur has emerged as the least populous tribal district.

9.139 During the Fifth Plan period a new approach to tribal development, namely formulating separate tribal sub-plans for areas of tribal concentration was suggested by the Government of India. The tribal development schemes are broadly classified into two: (i) schemes for areas of tribal concentration; and (ii) schemes for dispersed tribes. The expenditure and physical achievement under tribal sub-plans for scheduled tribes during 1981-82 is shown in Appendix 9.73.

9.140 Special Central Assistance allocated by the Government of India for the sub-plans and expenditure incurred for the period 1974-75 to 1981-82 are shown in Appendix 9.74.

9.141 The majority of the tribal people in Kerala are agricultural labourers. Collection of minor forest produce is the second major occupation of the tribals. The State Government has allowed the Girijan Service Co-operatives to collect and market minor forest produce from the Reserve Forest Ranges at concessional rates. The marketing of minor forest produce collected by these societies is proposed to be undertaken by the Kerala State Harijan and Girijan Development Co-operative Federation (Ltd.).

9.142 During 1976 Government have enacted legislation for the abolition of bonded labour system. So far 829 bonded labourers have been identified in the State particularly in Wynad area. Seventy two bonded labourers have been rehabilitated during 1981-82. Out of the total bonded labourers, 447 have been rehabilitated upto the end of 1981-82.

9.143 The level of literacy among the tribals is far below the general literacy rate prevailing in the State. Hence education of the scheduled tribes has been assigned very high priority. Tribal students studying in pre-matric and post-matric classes were given scholarships and stipend to the tune of Rs. 66.12 lakhs during the year 1981-82. With a view to providing free accommodation and boarding to tribal students, the Tribal Welfare Department is running 24 Welfare Hostels and 60 Residential Basic Schools. Five new hostels were started during 1981-82. Fourteen nursery schools and 117 balawadis are functioning in various settlements/concentrations for providing pre-primary education and nutritious food to tribal children in the age group of 3 to 5 years. Thirty six balawadis and creches have been started during the year. To encourage enrolment and attendance of tribal children in schools, an amount of Rs. 11.53 lakhs was provided to the parents of those children regularly attending schools as incentive grants at the rate of Rs. 10 per month per student. Special coaching classes were conducted in 19 hostels and library facilities, radio sets etc., are provided to 10 hostels during the year. A grant of Rs. 3.60 lakhs was extended to 417 S.S.I.C. failed students studying in various tutorials.

9.144 There are 25 industrial training centres and 2 production cum training centres. Ninety-one tribals were trained in popular trades such as motor car driving and other trades.

9.145 To improve the economic well being of the tribals various other schemes have also been implemented effectively during 1981-82. A number of girijan service co-operative societies have been organised with the financial support of the Government. The monopoly of collection of minor forest produce has been given exclusively to girijan service co-operative societies. Construction of 324 houses has been taken up during 1981-82 for the uplift of the tribals. Six tribal hamlets were taken up for overall development. Financial assistances were sanctioned to 253 tribals to repair their damaged houses and wells, and to 50 tribal entrepreneurs to set up petty shops, provision shops etc. and to expand existing shops. Rethatching grants to 1666 hut dwellers and 140 discretionary grants were sanctioned. For the purchase of agricultural implements, 62 tribal families were given financial assistance. Under the colonisation programme and Andyodaya Programme 191 and 175 beneficiaries were assisted and identified respectively during 1981-82.

9.146 Eighteen Ayurveda Dispensaries, 18 Allopathic Dispensaries, 3 midwifery centres and one mobile medical unit are functioning under Tribal Department. Ten medical camps attended by expert doctors were also conducted in the interior tribal settlements. The total expenditure during 1981-82 for various schemes under tribal development programmes is shown in Table 9.16.

TABLE 9.16  
Expenditure Under Tribal Development Programme—1981-82

Item	Amount (Rs. in lakhs)
(1)	(2)
1. State Plan Scheme	90.719
2. Non-Plan Scheme	141.425
3. Centrally Sponsored Schemes	8.000
4. Special Central Assistance (Tribal Sub Plan)	49.982
Total	290.126

### Social Welfare

9.147 The social welfare programmes in the State fall broadly under five major heads viz. child welfare, women's welfare, welfare of the physically handicapped, social defence and social security.

#### A. Child Welfare

9.148 With a view to provide a congenial and wholesome social environment to children, various child welfare programmes have been introduced in the State. These programmes provide (i) supplementary nutrition, (ii) health care, (iii) pre-school education, and (iv) recreation facilities to children.

##### (i) Supplementary Nutrition

9.149 The number of children (and nursing and expectant mothers) provided with supplementary nutrition under the various nutrition programmes sponsored by Governmental agencies was 34.58 lakhs in 1981-82.

##### (ii) Health Care

9.150 Health check of children is common to most of the Government sponsored nutrition programmes. In order to protect the health of the malnourished children, prophylaxis against nutritional anaemia and blindness due to vitamin A deficiency was vigorously carried out by Health Services Department during the year. The number of beneficiary children under the prophylaxis programme increased from 24.76 lakhs in 1980-81 to 37.19 lakhs in 1981-82. The Comprehensive School Health Programme introduced during 1979-80 and the health care scheme

for school children introduced in 1980-81, are the major steps taken by Government to provide health care to school going children. The scheme contemplates a comprehensive physical examination and medical test of the entire school going children within a period of five years in a phased manner. Under the scheme doctors equipped with mobile units subject each school going child to medical examination and provide a health card indicating the complete medical details and the corrective action required. This is followed up in each case through the rectification of vitamin and other nutritional deficiencies for general health and hospitalisation wherever necessary. The medical record will be up-date? from year to year as part of a continuing scheme. The number of schools covered by the programme has increased from 798 in 1980-81 to 4635 in 1981-82. It is expected to cover 6000 schools during 1982-83. The number of children subjected to physical examination has increased from 1.48 lakhs in 1980-81 to 4.9 lakhs in 1981-82. The anticipated achievement during the year 1982-83 is 17.0 lakhs. A similar increase has been noticed in the number of health cards issued. Thirty-nine per cent and 33 per cent respectively of the children subjected to physical examination in 1980-81 and 1981-82 are found to be defective in health. The number of children advised for referral service has increased from 18,573 in 1980-81 to 41,374 in 1981-82.

##### (iii) Pre-School education

9.151 Pre-School education is at present mostly managed by voluntary organisations with or without aid from Governmental agencies. Mahilasamajams play a dominant role in the provision of this facility. Table 9.17 gives the number of creches and balawadis/nurseries receiving assistance from the Social Welfare Department, Development Department, the Social Welfare Advisory Board and the Kerala State Council for Child Welfare. The number of such institutions that received assistance from these agencies has increased from 2925 in 1980-81 to 3118 in 1981-82. Besides, the Social Welfare Department is running 30 day care centres for the benefit of 1500 children of working class women like fisherfolk, coir workers, agricultural labourers, etc. The Tribal Welfare Department and the Harijan Welfare Department are running creches and nurseries for the benefit of scheduled caste and scheduled tribe children. The Director of Public Instruction also extends financial assistance to voluntary agencies for running nurseries etc. However, a majority of such institutions in operation in the State are run by voluntary agencies without any assistance from Governmental agencies.



TABLE 9.17

Name of Pre-School Educational Institutions Receiving Financial Assistance from Governmental Agencies

Name of Agency Assisting	No. of institution assisted							
	1979-80		1980-81		1981-82		1982-83 (anticipated)	
	No. of Institutions	No. of Beneficiaries	No. of Institutions	No. of Beneficiaries	No. of Institutions	No. of Beneficiaries	No. of Institutions	No. of Beneficiaries
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>I. Creches:</b>								
1. Social Welfare Department	188	7520	275	11000	275	11000	275	11000
2. Social Welfare Advisory Board	120	3000	119	2975	139	3875	144	2850
3. Kerala State Council for Child Welfare	22	..	40	..	71	..	62	..
Total I	330	10520	434	13975	485	14875	481	13850
<b>II. Nurseries/Balwadies</b>								
1. Social Welfare Department								
2. Social Welfare Advisory Board	320	9305	271	9005	213	8950	210	10000
3. Development Department	1951	253630	2161	280930	2361	306930	2361	306930
4. Kerala State Council for Child Welfare	59	..	59	..	59	..	59	..
Total II	2330	262935	2491	289935	2633	315880	2630	316930*
Grand Total (I & II)	2660	273455	2925	303910	3118	330755	3111	330780*

\*Excludes Beneficiaries under State Council for Child Welfare.

9.152 The number of ICDS in operation in the State has increased from 23 in 1981-82 to 32 in 1982-83 and the number of Anganwadis 2300 in 1981-82 to 3472 in 1982-83. These Anganwadis provide a package of services to 2.3 lakh children in the State. Of these 13,000 children benefit from the pre-school education programme of the Anganwadis.

9.153 In addition to its creche balwadi and nutrition programmes, the Kerala State Child Welfare Council is running a Women's and Children's Library and a documentation centre on children. It also publishes a monthly journal viz. 'Nammude Kunjungal'. As part of its children's literature programme, the Council has published 17 books till 1981-82. Under its sponsorship programme, the Council sponsors talented children of poor financial background for financial assistance for education. Five children are now receiving such assistance from foreign countries. Under its supervised home work programme the Council arranges special tuition for 50 educationally backward children every year.

9.154 In order to produce sufficient number of trained teachers for pre-school education, the Council is running 3 training centres for Multi-purpose Child Welfare Workers. One hundred and fifty five balasevikas were trained during 1981-82 and the anticipated achievement during 1982-83 is 180. Besides, the Council is running

six centres to impart training to Anganwadi teachers. It is proposed to train 600 teacher in 1982-83.

9.155 Four welfare extension projects (urban) and a Pre-School project are now functioning in the State with financial assistance from the Central Social Welfare Advisory Board. The pre-school project at Trivandrum has benefited 93 children in 1980-81. The four Welfare Extension Projects (Urban) at Kottayam, Calicut, Trivandrum and Trichur provide a closely knit programme of creche, balawadi, craft and social education for adult women and youth and maternity and child welfare services. The number of beneficiaries under these programmes during 1980-81 was 258.

#### (iv) Recreation

9.156 Most of the pre-school education centres have recreation facilities for children. Assistance to such institutions by Governmental agencies include provision for play materials and other recreation facilities. In addition, the Social Welfare Advisory Board is extending financial assistance to voluntary agencies for Holiday Camps for boys and girls of low income group families in some place away from their habitual environment. The number of such camps conducted during 1980-81 was 109 benefiting 5480 children. In 1981-82 the achievements are 44 and 2400 respectively.

9.157 The Kerala State Council for Child Welfare is running a Children's Film Club where Children's films received from various foreign embassies and Government Departments are screened on all Sundays. Film festivals are also organised by the Council for the benefit of children. It has a film library with five films. The Council is also running children's Philatelic and numismatic clubs. With the help of the Fishery Department the Council has also organised a mini aquarium for children. The Children's Museum organised by the Council is the first of its kind in South India. The Children's Park at Ernakulam constructed at a cost of over Rs. 2 lakhs is a major achievement of the Ernakulam District unit of the Council.

## B. Women's Welfare

9.158 Organisations like the Mahilasamajams play a vital role in the socio-economic betterment of women. At present there are 12842 such organisations registered under the Block unions of the Development Department. The Mahilasamajams receive various kinds of support for their educational, child care, economic and cultural activities from the State Government, the Social Welfare Advisory Board the Central Social Welfare Board and the Central Social Welfare Department. The Women's Welfare Programmes in the State fall under three major categories viz. (i) nutrition and health care (ii) education and training and (iii) employment.

### (i) Nutrition and Health

9.159 Child Welfare Programmes such as the Special Nutrition Programme, the World Food Programme, the Integrated Health Package Programme, the Applied Nutrition Programme, the Composite Programme for Women and Pre-school Children, and the Integrated Child Development Services are composite programmes for women and children. These programmes for pre-school children cater to the supplementary nutrition and health care needs of the pregnant and lactating mothers also.

### (ii) Education and Training

9.160 Under the programme for providing educational facilities to adult women, the Social Welfare Advisory Board has extended financial assistance to 153 organisations in 1980-81 and 158 organisations in 1981-82. The number of adult women of the age group 18-30 benefited under this programme has increased from 2950 in 1980-81 to 3180 in 1981-82. Attached to the 14 centrally sponsored ICDS projects 23,000 adult women of the age group 18 to 35 are provided functional literacy education and training in crafts such as tailoring, mat making, plastic knitting, kitchen garden, book-binding, etc., during 1981-82. Under the vocational training programme for women, the Central Social Welfare Board has extended financial assistance to 153

women's organisations in 1980-81 and 158 in 1981-82. The number of women benefited under the scheme has increased from 2950 in 1980-81 to 3180 in 1981-82. In the State sector, under the scheme for training to women in distress for rehabilitation, financial assistance is given for adult women in distress for undergoing vocational training in commercial subjects.

### (iii) Employment

9.161 The State Government has been taking special care through the various development programmes for generating employment opportunities for women. The Applied Nutrition Programme includes economic programmes for women such as goat rearing, backyard poultry, kitchen gardening, etc., for supplementing their family incomes. It also provides health and nutrition education for women.

9.162 Under the scheme for providing self employment to women the State Government extends financial assistance to deserted women, widows, etc., for starting small trades or business to make a living. The number of beneficiaries under the scheme has increased from 624 in 1981-82 to 1650 in 1982-83.

9.163 Financial assistance is also given to women's organisations for undertaking employment programmes for the benefit of women. Under this scheme non-recurring grant assistance upto a maximum of Rs. 10,000 was given to 56 women's organisations during the year 1981-82.

9.164 Under the scheme for socio-economic programmes for employment and income to low income groups, the Social Welfare Advisory Board is giving financial assistance to women's organisation for generation of employment and income to women. The number of organisations assisted under the programme was 40 in 1981-82. Upto 1979-80 the Board has assisted 299 projects under the scheme consisting 139 dairy projects and 128 production units. These projects together have provided employment opportunities to 5070 women in the State upto 1979-80. The number of women additionally benefited under the scheme during 1980-81 and 1981-82 are 1324 and 1000 respectively.

9.165 The Public Works and Social Welfare Departments are running working women's hostels in order to provide accommodation at reasonable rates to working women in urban areas. The number of working women's hostels run by these Departments are 3 and 4 respectively. In addition the Central Social Welfare Department and the Central Social Welfare Advisory Board extend financial assistance to voluntary agencies for construction of working women's hostels. In addition the Social Welfare Department is running two working men's hostels. The Central Social Welfare Department has extended assistance to fourteen voluntary agencies for this purpose during 1981-82. However, the smaller towns like the Taluk headquarters, etc., are not eligible for grant-in-aid assistance for construction of working women's hostels under the Central

schemes. Therefore the State Government has taken up during 1980-81 a scheme for providing financial assistance to voluntary agencies for the construction of working women's hostels in these small towns.

9.166 The Social Welfare Department is giving financial assistance not exceeding Rs. 2000 under the scheme grant to couples contracting inter-caste marriage who are placed under hard circumstances, consequent on their contracting inter-caste marriage. The number of beneficiary couples under the scheme has increased from 75 in 1981-82 to 250 in 1982-83 (anticipated).

(c) *Welfare of the Physically Handicapped*

9.167 Several programmes are implemented in the State for the education, training and rehabilitation of the four categories of handicapped persons viz., the blind, the deaf, the orthopaedically handicapped and the mentally retarded.

(i) *Education*

9.168 The Department of Public Instruction is running 10 special schools for the education of the deaf and blind children upto the VII standard. Of these special schools facilities for the education of the deaf are available in six schools and that for the blind in 8 schools. Under the integrated scheme of education the blind children can continue education in the secondary schools. However, there are no facilities for the education of the deaf beyond standard VII and the facilities available even up to the VII standard are far short of the requirements. At present there are no facilities in the public sector for the education of the mentally retarded children. Facilities for the education of the orthopaedically handicapped children at pre-primary level are also lacking.

9.169 As a special incentive for the education of the handicapped children, Government of India awards scholarships to the blind, deaf and orthopaedically handicapped students for general education and technical/professional training from standard IX onwards. The number of recipients of these scholarships has increased from 742 in 1980-81 to 1400 in 1981-82. As a complementary to this scheme, the State Government has introduced a Pre-matric scholarship scheme to the handicapped students from Standard I to VII. The number of beneficiaries under the scheme has increased from 1066 in 1979-80 to 3461 in 1981-82.

9.170 Charitable agencies in the State are also running a few institutions for the education and training of the mentally handicapped children. The State Government extends financial assistance to children from poor families admitted to such institutions. Such assistance was given to 16 children in 1980-81 and to 70 children in 1981-82.

(ii) *Training and Rehabilitation*

9.171 The Social Welfare Department is running two vocational training centres of the benefit of the handicapped at Trivandrum and Kozhikode. In these centres training facilities are offered to 100 physically handicapped persons.

9.172 Under the scheme 'Production Centres for the Handicapped'; the Social Welfare Department extends financial assistance to voluntary organisations for running starting production units where physically handicapped persons should be given employment. Under the scheme, non-recurring grant assistance has been given to 4 organisations during 1979-80 for the purchase of equipment, machinery, tools etc., upto a maximum of Rs. 10,000 per organisation. During 1980-81 assistance was given to 2 organisations under the scheme. In addition, the Social Welfare Department has recommended 16 projects in 1979-80 and 17 projects in 1980-81 for assistance under the central scheme of assistance to voluntary organisations for providing employment to the handicapped.

9.173 For providing self employment to the handicapped, the State Government has initiated a scheme under which financial assistance by way of grants not exceeding Rs. 500 is given to disabled persons for starting simple trades or business suited to their residual capacities. The number of beneficiaries under the scheme has increased from 200 in 1979-80 to 600 in 1981-82.

9.174 The formation of the Kerala State Corporation for the Welfare of the Handicapped is a major step taken by Government for the overall welfare of the handicapped. The Corporation has started a Departmental Store for the sale of consumer goods at Trivandrum during 1980-81. A mobile sales van and a sales cabin were also started during 1980-81. In addition as part of its programme for the distribution of 1000 sales cabins 700 cabins have already been distributed. This project when completed will provide direct employment to 1017 handicapped persons.

9.175 In order to promote employment opportunities to the handicapped in public service, Government have introduced grace marks to the handicapped candidates appearing for selection tests of the Public Service Commission. Further to give special attention, special employment exchange for physically handicapped is now functioning at Trivandrum. In December 1981 Government sanctioned four special units for promoting the placement of the physically handicapped candidates in more districts where the live register of physically handicapped persons are 600 or more. These Districts are Kozhikode, Quilon, Kottayam and Trichur. Details regarding the placement of the handicapped candidates during the last few years are given in Table 9.18

TABLE 9.18

## Details of Placement of the Physically Handicapped

Live Register as on	Blind	Deaf & Dumb	Orthopaedically handicapped	Total	Submission	Placement
(1)	(2)	(3)	(4)	(5)	(6)	(7)
31-3-1979	48	77	1570	1695	3855	230
31-3-1980	52	85	1741	1878	4414	287
31-3-1981	70	93	2066	2229	4662	417
31-12-1981	36	74	1134	1244	2516	194
31-8-1982	70	124	2163	2357	3060	225

9.176 Another scheme introduced by Government for promoting employment opportunities to the handicapped is the scheme for the payment of travelling allowances to handicapped persons appearing for selection tests or interviews for employment. During 1980 Government have introduced a new scheme for the payment of conveyance allowance to the blind and orthopaedically handicapped full time Government employees at the rate of Rs. 50 p.m. and part-time contingent employees at the rate of Rs. 25 p.m. In addition, during the International year of the Handicapped, Government have ordered the continuance in service of all physically handicapped provisional employees in service as on 31-12-1981.

9.177 For minimising the physical disabilities of the handicapped, Government have introduced a scheme for extending financial assistance to deserving handicapped persons for the purchase of orthotic and prosthetic aids. The number of beneficiaries under the scheme has increased from 136 in 1979-80 to 400 in 1981-82. Artificial limb fitting facilities are now available at the Medical college Hospitals at Trivandrum and Kottayam. The Kottayam Centre is being manned by the Corporation for the Welfare of Physically Handicapped.

## (iii) Care Homes

9.178 In order to give care and protection to the physically handicapped, the Social Welfare Department is running 2 vocational training centres, 5 homes for the physically handicapped, 2 homes for the mentally deficient children and 4 care homes for disabled children. These institutions together could provide care protection and training to only 265 handicapped persons in 1981-82. Voluntary agencies like the parishes in the State also play a major role in providing care and protection to the handicapped. Deserving special mention in this context is the Cheshire Home at Trivandrum. Cheshire Home, the newly formed organisation for the benefit of the handicapped and the disowned, is providing

accommodation to 80 disabled persons of both sexes. The inmates of the Home by their hard task earn money by way of assembling radio boards and preparing harness and bunches of wires for television sets for Keltron, job works for the Trivandrum Rubber works, making candles, embroideries etc. The Home has attached to it a dispensary and clinical laboratory, a reading room and a library. A quarterly manuscript 'Bhavana' is regularly issued by the inmates of the Home.

## (iv) Services for Child Destitutes

9.179 Under its programme for the care of destitute children the Child Welfare Council is running a transit home for abandoned children. These children are given in adoption to willing foster parents. Under its Adoption Programme, the Council has processed the adoption of many children both in India and foreign countries like U.S.A., Italy, Holland, Australia, Sweden etc. The Council is also running an S.O.S. children village for the benefit of the destitute and parentless children. Such children are taken care of by the Council under this programme by providing them new homes and an atmosphere of real family life.

## D. Social Defence

9.180 Social defence programmes, include preventive, correctional and rehabilitation services in various area of social defence such as welfare of prisoners, delinquency control, probation, beggary control and social and moral hygiene. The social defence programmes in the State are mainly looked after by the Departments of Social Welfare and Jails. Table 9.19 gives the number of key social defence institutions with the number of inmates, in the State, during the years 1979-80 to 1981-82.

TABLE 9.19

## Key Social Defence Institutions in the State

Details	1979-80		1980-81		1981-82	
	No. of Institutions	No. of Inmates	No. of Institutions	No. of Inmates	No. of Institutions	No. of Inmates
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. After Care Homes	6	226	6	213	6	224
2. After Care Hostel for Women	1	12	1	9	1	15
3. Rescue Homes	3	163	3	174	3	168
4. Beggar Homes (run by 4 Voluntary Agencies)	4	390	5	440	5	440
5. Borstal Schools	1	200	2	205	2	210
6. Balanandirs (Govt. Childrens' Homes & Special Schools)	5	550	5	550	5	550
7. Children's Court	1		10		11	

9.181 The Children's Act, 1972 and the Kerala Children's Rules 1976 provide for necessary machinery such as juvenile courts, children's courts, remand/observation homes and children's homes and special schools for the prevention and treatment of juvenile delinquency. The five Balamandirs meant for the detention, education and training of juvenile delinquents continued during the year with 550 inmates. The seven industrial training units in the Balamandirs imparted training to 210 juvenile delinquents during the year 1981-82.

9.182 Under the scheme for welfare of prisoners, Welfare Officers are appointed in the prisons in the State to serve as counsellors to the prisoners. The number of welfare officers in Prisons has increased from 4 in 1979-80 to 6 in 1981-82. These welfare Officers continued to look after the individual problems of prisoners and assist in solving them in liaison with the respective families of the prisoners.

9.183 For the rehabilitation of the prisoners and juvenile delinquents on release in productive employment, vocational training is imparted to them in the Jail industrial units and the industrial units in Balamandirs. In addition, under the after care services programme Government extended financial assistance at the rate of Rs. 500 to ex-convicts and probationers who have served at least 2/3 portion of their supervision period with good record. This assistance is given for their rehabilitation in some small trades or business. The number of beneficiaries, during the year, under the scheme is 20.

9.184 For the prevention of beggary Government provide per capita maintenance grants at the rate of Rs. 35 to inmates of the beggar homes run by voluntary agencies. The 5 beggar homes run by voluntary agencies with Government assistance continued during the year under review with 440 inmates.

#### E. Social Security

9.185 The two important means of providing social security are social insurance and social assistance. Because of the underdeveloped and mostly unorganised nature of our economy the social security programme in the State necessarily lean heavily on social assistance.

9.186 In our family and value systems, the care of the aged is the responsibility of their children and other close kins. Even though there is no lack of willingness in general to shoulder this responsibility, force of circumstances leaves a large number of old and disabled people without any means of support especially when only a very small percentage of our working population is at present covered by pension, gratuity and other benefits. It is in consideration of the welfare of these and similarly placed segments of our population that various social assistance programmes have been introduced in the State.

9.187 Kerala ranks first among the States in India in the provision of social security. The social security programmes in the State fall under three categories viz:

- (a) Residential care and protection
- (b) Pension
- (c) Other financial relief.

9.188 The number of beneficiaries under these major social security programmes was 5.99 lakhs during 1981-82 involving an expenditure of Rs. 44.5 crores.

#### (a) Residential care and protection

9.189 Residential care and protection to the aged, infirm and destitutes are provided through the care homes and orphanages run directly by Governmental agencies or by voluntary agencies with or without governmental assistance. For the care and protection of orphans and destitutes the Social Welfare Department is running 10 Abalamandirs, two shelter homes for waifs and strays and one children's home. During 1981-82 these homes together provided care and protection to 409 destitutes. The Government have raised the per capita maintenance charges for the inmates of these social welfare institutions from Rs. 75 to Rs. 85 p.m.

9.190 Besides, 294 orphanages, 39 homes for aged and infirm, 5 foundling homes and 4 beggar homes are run by voluntary agencies and charitable organisations in the State. Those institutions are given recurring grant-in-aid by Government by way of monthly per capita maintenance allowance to inmates of these institutions. The number of beneficiaries of such assistance in these institutions increased from 24,111 in 1980-81 to 26,865 in 1981-82. The Government have revised the per capita maintenance grants to inmates of orphanages, beggar homes, homes for aged and infirm and foundling homes as follows:—

- (i) Orphanages: from Rs. 35 to Rs. 45 p.m.
- (ii) Beggar homes: from Rs. 25 to Rs. 35 p.m.
- (iii) Homes for the aged and infirm: from Rs. 35 to Rs. 45 p.m.
- (iv) Foundling homes: from Rs. 20 to Rs. 30 p.m.

#### (b) Pensions

9.191 In order to ensure care and protection in their old age, Government have introduced various pension schemes for the benefit of destitutes, agricultural workers, artisans, journalists, sportsmen, men of arts and letters, cine artistes and circus artistes. The destitute pension scheme and the agricultural workers pension scheme alone have benefited 3.11 lakh persons during 1980.

(i) *Pension to Agricultural Workers*

9.192 The Agricultural workers pension scheme introduced during 1980-81 is a major step taken by Government in the discharge of the social obligations to this segment of our toiling masses. During 1981-82 (upto 30-9-1981) pension at the rate of Rs. 45 p.m. was sanctioned and disbursed to 172,376 farm workers above the age of 60 and having an annual income below Rs. 1500. However in view of the widespread complaints about the grant of pension to ineligible persons Government ordered verification of all the sanctioned applications with special reference to age, income and address of land-owners and suspended future payments in cases where the applicants were *prima face* ineligible. Verification of sanctioned applications received in the District Labour Offices upto 30-9-1981 has been completed. These verifications showed that out of the 293,778 persons to whom pension was sanctioned in 1981-82 only 172,376 were eligible for pension. Therefore pension was sanctioned and disbursed only to these persons in 1981-82. The anticipated number of beneficiaries in 1982-83 is 2.9 lakhs.

(ii) *Pension to Destitutes*

9.193 The scheme for the payment of pension to old age destitutes, physically disabled and handicapped destitutes and widowed/divorced destitutes continued during the year with larger coverage. The number of pensioners under the scheme during 1981-82 was 169,590 against 165,000 during 1980-81. The total expenditure under the scheme which stood at Rs. 806 lakhs in 1980-81 has increased to Rs. 905 lakhs in 1981-82 consequent on the enhancement of the monthly rate of pension from Rs. 45 to Rs. 55 with effect from 1-4-1980. The anticipated number of beneficiaries is 1.75 lakhs during 1982-83. The expenditure under the scheme for the last six years is as follows:—

	<i>Expenditure.</i> (Rs. lakhs)
1977-78	396.54
1978-79	487.89
1979-80	546.37
1980-81	806.00
1981-82	905.00
1982-83 (estimate)	1228.00

(iii) *Pension to Artisans*

9.194 The scheme for the grant of old age pension to artisans, continued during 1981-82. Under the scheme pension at the rate of Rs. 100 p.m. is granted to poor artisans above the age of 60.

(iv) *Pension to Sportsmen*

9.195 Kerala has presented several sports stars of national and international repute. Some of them are financially poor and some others are forced to retire from sports activities

as a result of ill-health or accidents. The pension scheme introduced for the benefit of such sportsmen continued during 1981-82. Under this scheme a monthly pension ranging from Rs. 100 p.m. to Rs. 200 p.m. is granted to sportsmen whose annual income is below Rs. 3600. The number of pensioners under the scheme is expected to increase from 96 in 1981-82 to 125 in 1982-83.

(v) *Pension to Circus Stars*

9.196 Incapacitated circus stars who were in the service of a circus company for 15 years and more and whose annual income is below Rs. 3,600 are given pension under the scheme. During 1980-81 pension at the rate of Rs. 180 p.m. was sanctioned to 55 artistes. The anticipated number of beneficiaries during 1982-83 is 110.

(vi) *Pension to Journalists*

9.197 In 1981-82 sixty-five journalists or their dependents in indigent circumstances whose annual income was below Rs. 3600 were granted pension at a monthly rate ranging from Rs. 150 to Rs. 300.

(vii) *Pension to Artistes and Writers*

9.198 Distinguished artistes and writers (above 50 years) in indigent circumstances whose annual income is below Rs. 3,600 are awarded pension upto Rs. 300 p.m. under the scheme.

(viii) *Pension to Cine Artistes*

9.199 In 1979-80 monthly pension ranging from Rs. 100 to Rs. 300 was granted to 56 cine artistes and technicians in distress whose annual income was below Rs. 3,600. During 1981-82 the number of beneficiaries under the scheme has increased to 81.

C. *Other Financial Relief*

9.200 The major welfare programmes coming under this group include: (i) financial assistance to widows for the marriage of their daughters; (ii) accident relief to coconut climbers; (iii) relief to T.B. patients; and (iv) unemployment assistance.

(i) *Assistance to Widows for the Marriage of their Daughters*

9.201 In 1981-82, 15,040 widows whose annual family income was below Rs. 5000 were given financial assistance at the rate of Rs. 1000 for the marriage of their daughters.

(ii) *Accident Relief to Coconut, Palmyrah and Arecanut Tree Climbers*

9.202 This scheme was introduced with effect from 1-4-1980. It envisages payment of *ex gratia* financial assistance at the rate of Rs. 5000 to coconut, palmyrah and arecanut tree climbers or their dependants in the event of permanent and

total disablement as a result of accident in the course of employment. During 1981-82 *ex gratia* financial assistance was sanctioned to 40 persons [their dependents involving an expenditure of Rs. 2 lakhs.

(iii) *Toddy Worker's Welfare Fund*

9.203 The Kerala Toddy Worker's Welfare Fund Act (1969) is a social welfare as well as social security measure for the benefit of the toddy workers in the State. According to the provisions of the Act, every employee has to contribute 8 per cent of his wages and the employer (contractor) an equal amount towards the provident fund of the employee. Besides this, the employer has to contribute 5 per cent of the wages of the employee towards his gratuity fund. Thus 21 per cent (8+8+5) of the wages of each employee engaged in the industry form part of the Toddy Worker's Welfare Fund.

9.204 There has been an all round improvement in the welfare activities of the Toddy Worker's Welfare Fund Board during 1981-82. Final payment of Provident Fund to toddy workers which stood at Rs. 40.04 lakhs to 2564 workers in 1980-81 increased to Rs. 49.17 lakhs to 3335 workers in 1981-82. Similarly payment of gratuity which stood at Rs. 5.74 lakhs to 593 workers in 1980-81 increased to Rs. 11.94 lakhs to 1192 workers in 1981-82. House building advances sanctioned to employees also increased from Rs. 32.96 lakhs to 1959 workers in 1980-81 to Rs. 40.35 lakhs to 2290 workers in 1981-82.

9.205 The Board is also implementing the following welfare schemes for the benefit of toddy workers:—

(a) *Financial Assistance for Funeral Ceremonies of Workers*

9.206 An amount of Rs. 1000 is allowed to the family in case of death of a toddy worker. During 1981-82 such assistance was given to 33 families.

(b) *Educational Scholarships to the Children of Workers from the Financial Institutions where the Funds of the Board are Invested.*

9.207 During 1980-81 Rs. 1.03 lakhs was disbursed towards scholarships by these financial institutions. The scholarship amount per child has been enhanced from Rs. 5000 to Rs. 6000 during 1981-82.

(c) *Merit Scholarship to the Children of Toddy Workers from the Board*

9.208 During 1980-81 a sum of Rs. 55,600 was spent on this account.

(d) *Housing Scheme for Toddy Workers*

9.209 In collaboration with the Housing Board the Toddy Workers Welfare Board has evolved a scheme to construct houses for the workers without a house of their own but owning house sites. Initially the Board proposes to construct 1000 such houses. Selected achievements of the

Welfare Board are given in Table 9.20 and Appendix 9.80.

(i) *The Fishermen's Welfare Fund*

9.210 The Fishermen's Welfare Fund is for payment of old age benefits, expenses connected with death and marriage ceremonies, off season expenses etc., of the poor fishermen. The fund is operated by the Kerala Fishermen Welfare Corporation. During 1982-83 an amount Rs. 10 lakhs is earmarked for this purposes.

(v) *Relief to T. B. Patients*

9.211 The scheme envisages payment of financial assistance at the rate of Rs. 50 p.m. to poor T.B. patients for a continuous period of one year for their sustenance and treatment. In case the patient is not cured within the next three years, financial assistance will be given for a further period of one year. During 1980-81 (upto 28-2-1981) a sum of Rs. 27.79 lakhs has been disbursed to T.B. patients under the scheme. The scheme continued to operate during the year with larger coverage.

(vi) *Unemployment Relief*

9.212 The scheme was introduced during 1980-81 for the benefit of the unemployed persons on the live register of the Employment Exchanges for three years as on 31-12-1979 and whose annual family income was below Rs. 4000. During 1980-81 unemployment assistance at the rate of Rs. 50 p.m. was sanctioned to 240,913 eligible applicants for the whole year. The number of applications sanctioned during 1981-82 was 195,937.

9.213 The Unemployment Scheme has been renamed as Unemployment Assistance and Self Employment Scheme from 1-11-1982. Under the unemployment assistance scheme all unemployed persons in the age group 18 to 35, who have passed S.S.L.C. and having a family income of less than Rs. 4,000 per annum and whose names have been continuously in the live register of the Employment Exchanges for three years are entitled to get a monthly allowance of Rs. 50.

9.214 The Self Employment Scheme contemplates assistance to unemployed persons to start self employment projects. Each beneficiary under this scheme is eligible for a lump sum assistance of Rs. 600 at the initial stage itself, to be deposited as seed money in a specified nationalised bank by the beneficiaries for availing a loan advance of upto Rs. 5,000 per head at differential interest rate of 4 per cent to such of these beneficiaries whose family income does not exceed Rs. 3,000 for urban and Rs. 2,000 for rural areas and at the normal rate of interest to others.

9.215 The anticipated number of beneficiaries during 1982-83 are 164,292 under the unemployment assistance scheme and 84,690 under the self employment scheme. Achievements under major Social Security Programmes are given in Table 9.21.

TABLE 9.20

*Selected Achievements of Toddy Workers Welfare Fund Board*

Item (1)	Achievement					
	1979-80		1980-81		1981-82	
	Physical (Nos.)	Financial (Rs. lakhs)	Physical (Nos.)	Financial (Rs. lakhs)	Physical (Nos.)	Financial (Rs. lakhs)
(2)	(3)	(4)	(5)	(6)	(7)	
1. Provident Fund Sanctioned	2153	40.40	2564	40.04	3335	49.17
2. Gratuity Sanctioned	342	3.61	593	5.74	1192	11.94
3. House Building Advance	2361	36.34	1959	32.96	2290	40.35
4. Advance for Medical Treatment	464	4.42	381	3.55	413	4.01
5. Advance for Education of Children	26	0.16	24	0.13	34	0.27
6. Advance for Marriage of Daughters	171	1.21	160	1.13	208	1.56
7. Financial Assistance to Funeral Ceremonies/ Accidental Death Relief	8	0.08	36	0.36	33	0.33
8. Merit Scholarships to the Children	..	..	..	0.56	..	0.76

TABLE 9.21

*Number of Beneficiaries and Expenditure under the Major Social Security Programmes in Kerala*

(Rs. in lakhs)

Schemes (1)	1979-80		1980-81		1981-82	
	No. of Beneficiaries	Amount Disbursed	No. of Beneficiaries	Amount Disbursed	No. of Beneficiaries	Amount Disbursed
	(2)	(3)	(4)	(5)	(6)	(7)
1. Assistance to voluntary organisations for running:						
(i) Orphanages	19759	84.84	23721	110.98	23725	N.A.
(ii) Homes for the aged and infirm	2301	7.51	2301	10.00	..	..
(iii) Foundling home	390	0.53	440	1.58	440	N.A.
(iv) Beggar Homes	400	0.46	400	1.19	N.A.	N.A.
2. Destitute Pension scheme	134500	546.37	165000	806.00	169590	905.00
3. Financial assistance to widows for the marriage of their daughters	10591	105.90	11490	114.90	15040	150.40
4. Pension to sportsmen	99	1.75	99	1.67	96	2.21
5. Pension to Circus Stars	..	..	55	0.93	N.A.	1.44
6. Relief to T.B. Patients	..	..	27.79	29.92	N.A.	N.A.
7. Agricultural Workers Pension	..	..	293,778	1092.28*	172376**	744.20
8. Relief to coconut climbers/their dependents for permanent disablement/death due to accidents	..	..	37	1.84	40	2.00
9. Unemployment assistance	..	..	240,833	1438.66	146831	270.74

(as on 16-10-1981)

\*Placed at the disposal of the State Co-operative Bank.

\*\*No. found eligible after verification.

Source: 1. Social Welfare Director.  
2 & 3. Board of Revenue  
4. Secretary Kerala Sports Council.  
5. General Administration, Services 'F' Department.  
6. Director of Health Services.  
7. Labour Commissioner.



## Nutrition

9.216 There are several Government run supplementary feeding programmes to combat malnutrition and undernourishment among children and nursing and expectant mothers. The number of beneficiaries under these programmes is expected to increase from 34.24 lakhs in 1981-82 to 36.65 lakhs in 1982-83.

9.217 Over 53 per cent of the beneficiaries of the supplementary feeding programmes are pre-school children and nursing and expectant mothers. The number of beneficiaries under this group is expected to increase from 18.28 lakhs in 1981-82 to 20.83 lakhs in 1982-83. The effective feeding strength under the school mid-day meals programme shows a marginal decline from 1.96 lakhs in 1981-82 to 15.82 lakhs in 1982-83. This is attributed to the declining trend in enrolment in primary classes due to falling birth rate in the State.

9.218 In addition to the regular school feeding programme in operation a special scheme has been introduced from January 1980 for the supply of rice gruel with a side dish of tapioca to the vulnerable sections of school children especially in areas where there is large scale concentration of scheduled tribe children. This special kanji feeding programme in tribal areas cover 2776 tribal pupils in 52 schools during 1982-83.

9.219 The food component of these supplementary nutrition programmes is mostly supplied by external agencies like the CARE and the U. N. The production of Kerala Indigenous Food at the E.T.C., Kottarakara is a modest attempt on the part of the Government at supplementing the external supplies with fortified indigenous foods.

9.220 Table 9.22 gives details regarding the number of feeding centres and beneficiaries under the various nutrition programmes in the State sponsored by the Government.

TABLE 9.22

Feeding Centres and Beneficiaries under Supplementary Feeding Programme

Name of Programmes	1979-80		1980-81		1981-82		1982-83 (anticipated)	
	No. of feeding centres	No. of beneficiaries (lakhs)	No. of feeding centres	No. of beneficiaries (lakhs)	No. of feeding centres	No. of beneficiaries (lakhs)	No. of feeding centres	No. of beneficiaries (lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>A. For Pre-School Children</b>								
1. Special Nutrition Programme—								
(a) Special Nutrition Programme	1720	2.94	1970	3.19	1970	3.19	1970	3.19
(b) Special Nutrition Programme ICDS	1154	0.93	1354	1.11	2029	1.93	2500	2.25
(c) SNP in Tribal Sub-Plan Area	30	0.06	30	0.06	30	0.06	30	0.06
2. World Food Programme	2300	2.30	2300	2.30	2300	2.30	2300	2.30
3. Applied Nutrition Programme	5960	6.00	6060	6.10	5914	5.74	6511	7.00
4. One Meal a Day Programme								
(a) Rural Segment	4205	4.00	4205	4.00	3872	3.12	4200	4.00
(b) Urban Segment	620	0.62	620	0.62	594	0.58	620	0.63
5. Health Based Nutrition Programme	1700	1.70	1645	1.65	1596	1.36	1600	1.38
Total A (Pre-School Children)	17689	18.55	18184	19.03	18305	18.28	19731	20.83
<b>B. For School Children</b>								
6. School Mid-day Meal Programme	8998	18.12	9117	17.78	8754	15.96	8806	15.82
Grand Total (A+B)	26687	36.67	27301	36.81	27059	34.24	28537	36.65

Source: Items 1 & 2 Director of Social Welfare  
 Items 3 & 4 Joint Development Commissioner  
 Item 5 State Nutrition Co-ordination Officer of the Health Services Department  
 Item 6 Directorate of Public Instruction.

9.221 The Health component of the nutrition programmes include prophylaxis against nutritional anaemia and blindness due to vitamin A deficiency. The number of beneficiaries under the prophylaxis programme has increased from 41.63 lakhs in 1980-81 to 45.51 lakhs in 1981-82 and the coverage during 1982-83 (till December 1982) is 26.13 lakhs (See Table 9.23).

TABLE 9.23

*Prophylaxis Against Nutritional Anaemia and Beneficiaries*

Details	No. of beneficiaries			
	1979-80	1980-81	1981-82	1982-83 (up to 12/83)
1. Prophylaxis Against Nutritional Anaemia				
(a) Mothers	5.30	7.64	6.01	5.18
(b) Children	6.00	7.29	7.28	5.43
2. Prophylaxis Against Blindness in Children due to Vitamin A Deficiency				
1st Dose	14.13	13.00	23.90	13.54
2nd Dose	11.35	13.70	8.32	1.98
Total	36.78	41.63	45.51	26.13

Source:—State Nutrition Co-ordination Officer of the Health Services Department.

## **APPENDIX**

### **STATISTICAL TABLES**

LIST OF APPENDIX TABLES

APPENDIX No.	TITLE	PAGE No.
<i>General Review</i>		
1.1	Selected Economic Indicators—All India	155
<i>Income and Employment</i>		
2.1	Net State Domestic Product at Factor Cost by Industry of Origin—Kerala 1970-71 to 1980-81 at Current Prices	158
2.2	Net State Domestic Product at Factor Cost by Industry of Origin—Kerala 1970-71 to 1980-81 at Constant (1970-71) Prices	159
2.3	District-wise Break-up of Net State Domestic Product of Kerala at Current Prices—1980-81	160
2.4	District-wise Break-up of Net State Domestic Product of Kerala at 1970-71 Prices—1980-81	161
2.5	District-wise Break-up of Net State Domestic Product of Kerala at Current/Constant (1970-71) Prices	162
2.6	Estimates of District Income at Constant and Current Prices	163
2.7	Estimate of per capita Income of Districts in 1970-71 and 1980-81 (Rs.)	163
2.8	Sectoral Contribution of District Income	164
2.9	Urban Content of the Population of States in India	164
2.10	Estimated Annual Birth and Death Rates 1977-80—State-wise	165
<i>Prices and Cost of Living</i>		
3.1	Index Numbers of Wholesale Prices—By Groups and Sub Groups—All India	166
3.2	Consumer Price Index Numbers for Industrial Workers—All India and Selected Centres	168
3.3	Consumer Price Index Number for Agricultural Labourers	169
3.4	Consumer Price Index Numbers for Urban Non-Manual Employees—All India and Selected Centres	170
3.5	Wholesale Price Index of Agricultural Commodities—Kerala 1982	171
3.6	Wholesale Price Index of Agricultural Commodities—Kerala (1973-82)	171
3.7	Average Retail Prices of Essential Commodities for 1982	172
3.8	Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial Workers—Kerala 1982	174
3.9	Availability of Food in the State	175
3.10	Procurement of Paddy	175
<i>Agriculture</i>		
4.1	Farm Commodity Prices—Kerala	176
4.2	Monthly Rainfall	177
4.3	District-wise Area and Production of Rice in Kerala	177
4.4	District-wise Area and Production of High Yielding Varieties of Rice in Kerala	178

APPENDIX No.	TITLE	PAGE No.
4.5	Consumption of Fertilizers in Kerala	178
4.6	Production Import and Consumption of Rubber—India	179
4.7	Distribution of Coffee Plantation 1979-80	179
4.8	Disposal of Cases Relating to Tenancy and Kudikidappu	180
4.9	Distribution of Surplus Land	180
4.10	Animal Husbandry and Livestock Development Activities Carried out in Kerala by the Animal Husbandry Department	181
4.11	Consumption of Marine Fish Landings in Kerala during 1977-81	182
4.12	District-wise and Species-wise Distribution of Marine Fish-Landings in Kerala in 1981	183
4.13	Fishermen Co-operatives in Kerala	184
4.14	Beach Prices of Selected Marine Fishes in Kerala	184
4.15	Distribution of Marine Fishing Villages and Fishermen Population—Kerala 1980	185
4.16	District-wise Figures of Marine Fishing Crafts and Gears, Kerala 1980	186
4.17	District-wise Distribution of Fishermen Population in Kerala (estimated) 1981-82	187
4.18	Division-wise Area of Forests in Kerala	187
<i>Irrigation and Power</i>		
5.1	Details of Investment on Power Development	188
5.2	Growth of Power System at a Glance	189
5.3	Consumption of Power and Revenue Collected (Internal 1981-82)	190
5.4	Total Quantity of Power sold and Receipts by the Sale of Electricity	190
5.5	Energy Consumed and Revenue Realised—1981-82	191
5.6	Financial Position of the Kerala State Electricity Board	191
5.7	Average Rates of Electricity Supply and Electricity Duty for different Categories of Consumers Average Rate in P/KWH.	192
<i>Industry</i>		
6.1	District-wise Distribution of Working Factories and Employment in Kerala for the Year ending 31-12-1981	193
6.2	Government of India Companies—Main Features	194
6.3	Government of India Companies—Production and Capacity Utilisation	196
6.4	Progress of the Working of Kerala Financial Corporation at a Glance.	198
6.5	Kerala Financial Corporation—Summary of Loan Operations as on 31-3-1982	198
6.6	District-wise Sanction and Disbursement of Loans and Advances by the Kerala Financial Corporation as on 31-3-1982	199
6.7	Industry-wise Classification of Loans Sanctioned and disbursed by the Financial Corporation as on 31-3-1982	200
6.8	Khadi and Village Industries—Production, Sales Employment and Wages during 1980-81 and 1981-82	201
<i>Transport and Communications</i>		
7.1	Length of Roads Maintained by PWD as on 1-4-1982 (category-wise)	202
7.2	Type-wise Length of Roads Under Panchayats as on 31-3-1982 (Kms)	202
7.3	Growth of Motor Vehicles in Kerala during the last 6 years	203
7.4	Number of Motor Vehicles Having Valid Registration in Kerala as on 31-3-1982	204

APPENDIX NO.	TITLE	PAGE No.
7.5	Number of Vehicles Newly Registered in the State during the year 1981-82	205
7.6	Kerala State Road Transport Corporation—Operational Statistics (1981-82)	206
7.7	Kerala State Road Transport Corporation—Operational Ratios (1981-82)	207
7.8	Railway Net Work (All India)	208
7.9	Statistical Highlights—Southern Railway	208
7.10	State-wise Railway Route Length (1980-81)	209
7.11	Air Traffic from Trivandrum and Cochin Airports for the years 1980-81 and 1981-82	210
7.12	The Number of new Passports Issued by the Passport Office at Cochin and Calicut during 1981-82	210
7.13	Import and Export Tonnage of Cargo Handled and Revenue Collected at the Intermediate and Minor Ports of Kerala during 1981-82	211
7.14	Number and Tonnage of Steamers and Sailing Vessels which Called at the Intermediate and Minor Ports of Kerala during 1981-82	212
7.15	Category-wise Analysis of Ships that Called at the Cochin Port during the year 1981-82	213
7.16	Tonnage of Principal Commodities of Imports into Cochin Port during the year 1981-82	213
7.17	Tonnage of Principal Commodities of Exports from Cochin Port during the year 1981-82	214
7.18	Growth of Post Offices in Kerala	215
7.19	Area and Population Served by Each Post Office in the Various Districts of Kerala State as on 1-4-1982	215
7.20	Statistics of Post Offices as on 1-4-1982—Kerala Circle	216
7.21	Statistics Relating the Telephone Exchanges in Kerala for the years 1981 and 1982	216
<i>Export Import-Trade</i>		
8.1	Export of Coir Products	217
<i>Social Services</i>		
9.1	Progress of Educational Institutions—High Schools	218
9.2	Progress of Educational Institutions—Upper Primary Schools	219
9.3	Progress of Educational Institutions—Lower Primary Schools	220
9.4	District-wise Number of Schools Sanctioned during 1982-83	220
9.5	Standard-wise Strength of Students 1981-82	221
9.6	Standard-wise Strength of Students 1982-83	221
9.7	Progress of Enrolment in Different Stages of School Education	222
9.8	Number of Students Appeared and Passed the S.S.L.C. Examination	223
9.9	Number of Teachers in Schools—Section-wise 1980-81 and 1981-82	223
9.10	Number of Arts and Science Colleges in Kerala—District-wise	223
9.11	Number of Colleges Affiliated to the Universities in Kerala—1982-83	224
9.12	Enrolment by Stages in Arts and Science Colleges in Kerala—1981-82	224
9.13	Number of Colleges, Students and Teachers in Colleges under Kerala University, 1981-82	225
9.14	Number of Colleges, Students and Teachers in Colleges Under Calicut University 1981-82	225
9.15	Number of Post-Graduate Students in University Departments—Kerala and Calicut Universities 1981-82	226
9.16	Number of Engineering Colleges—Students and Teachers in Kerala—1981-82	227
9.17	Number of Polytechnics in Kerala—District-wise 1981-82 and 1982-83	227
9.18	Number of Students and Teachers in Polytechnics in Kerala—1981-82	227
9.19	Number of Junior Technical Schools in Kerala—District-wise 1981-82 and 1982-83	227

APPENDIX No.	TITLE	PAGE No.
9.20	Progress of Expenditure on General School Education	228
9.21	Cost per Pupil per year in the Different Stages of School Education	228
9.22	Per capita Government Expenditure on Education in Kerala	228
9.23	Per capita State Government Expenditure on Education State-wise—1981-82	228
9.24	Literacy—State-wise—1981	229
9.25	Literacy in Kerala—District-wise—1981	229
9.26	Medical Institutions and Beds in Kerala as on 31-3-1982-	230
9.27	Year-wise Details Regarding the Number of Doctors, Hospitals, Beds, etc. for All India	231
9.28	State-wise Details Regarding the Number of Hospitals, Hospital Beds	231
9.29	Medical and Public Health—Detailed Break-up of Expenditure	232
9.30	Per capita Expenditure on Medical and Public Health (Revenue Accounts)	232
9.31	District-wise Distribution of Institutions and Beds under Ayurvedic System of Medicine	232
9.32	District-wise Distribution of Institutions and Beds under Homoeopathy as on 31-3-1982	232
9.33	Number of Family Welfare Centres (Urban and Rural) 1980-81	233
9.34	Achievements Under Family Welfare Programmes for the year 1980-81 and 1981-82	233
9.35	Urban Water Supply Schemes in the State (Including L.I.C. Aided Schemes)	234
9.36	Rural Water Supply Schemes in the State (Piped) (Including L.I.C. Aided Schemes)	235
9.37	Drainage/Sewerage Schemes in the State	236
9.38	L.I.C. Aided Rural Water Supply Schemes in the State	237
9.39	L.I.C. Aided Urban Water Supply Schemes in the State	237
9.40	Expenditure on Sewerage and Water Supply Schemes in the State (including L.I.C. Assisted Schemes)	237
9.41	Expenditure on Water Supply Schemes with L.I.C. Assistance	238
9.42	Waste Water Collection and Treatment Situation in Kerala	238
9.43	Financial Achievements Relating to the Department of Town planning	240
9.44	Financial Achievements Relating to the Department of Municipal Administration	240
9.45	Town and Regional Planning Achievements	240
9.46	Financial Assistance to Planning and Development Authorities provided by the Chief Town Planner	240
9.47	Assistance to Urban Local Bodies for Non-Remunerative Works (Plan Schemes) Purpose-wise, Provided by the Director of Municipal Administration	241
9.48	Assistance to Urban Local Bodies for Non-Remunerative Works—Plan Schemes—Agency-wise	241
9.49	Non-Plan Grant Assistance to Urban Local Bodies	242
9.50	Assistance to Urban Local Bodies for Implementing Slum Clearance/Improvement Scheme (Plan Scheme)	242
9.51	Assistance to Urban Local Bodies for Execution of the Programme under the Centrally Sponsored Scheme for Integrated Development of Small and Medium Towns	242
9.52	Urban Development Works (Scheme-wise) Assisted by Kerala Urban Development Financial Corporation—Remunerative Schemes	243
9.53	Urban Development Works (Agency-wise) Assisted by the Kerala Urban Development Finance Corporation—Remunerative Schemes	244
9.54	Working Result of the Kerala Urban Development Finance Corporation	246
9.55	Number of Broadcast Receiver Licences in India (Radio)	246
9.56	Number of Broadcast Receiver Licences in India (Television)	246
9.57	Output of Feature Films in India	247
9.58	Number of Newspaper (State and Periodicity-wise) 1979-80	248

APPENDIX No.	TITLE	PAGE No.
9.59	Number of Papers (Language-wise)	.. 249
9.60	Circulation (Language and Periodicity-wise) in 1978-79	.. 250
9.61	Information and Publicity: Physical and Financial Achievement of the Public Relations Department	.. 251
9.62	District-wise Scheduled Caste/Scheduled Tribe Population of Kerala—1981	.. 252
9.63	District-wise Distribution of Kerala's S.C./S.T. Population with Urban—Rural Classification—1981	.. 252
9.64	District-wise S.C./S.T. Students in Various Government/Private Schools in 1981-82	.. 252
9.65	District-wise S.C./S.T. Students in Various Government/Private Colleges in 1981-82	.. 253
9.66	Number of Registrants of S.C. and S.T. with the Employment Exchanges in Kerala (30-9-1982)	.. 253
9.67	Expenditure under Special Component Plan for Scheduled Castes 1980-81 to 1982-83	.. 254
9.68	Physical Achievements Under Special Component Plan for Scheduled Castes 1980-81 to 1982-83	.. 255
9.69	Surplus Land Distributed to Scheduled Castes as on 28-2-1982	.. 256
9.70	Poromboke Lands Assigned to Scheduled Castes/Scheduled Tribes as on 28-2-1982	.. 256
9.71	Flow of Funds and Expenditure to Harijan Welfare Department during 1981-82	.. 256
9.72	Physical and Financial Achievement of Development Corporation for S.C./S.T. during 1981-82	.. 256
9.73	Tribal Sub Plan for Scheduled Tribes in Kerala Expenditure and Physical Achievements 1981-82	.. 257
9.74	Special Central Assistance for Sub-Plan Schemes 1974-75 to 1981-82.	.. 257
9.75	Selected Physical Achievement of the Social Welfare Department	.. 258
9.76	Financial Achievement of the Social Welfare Department	.. 259
9.77	Social Welfare Programmes of the Social Welfare Advisory Board	.. 260
9.78	Child Welfare Programmes, Physical and Financial Achievements of the Kerala State Council for Child Welfare	.. 261
9.79	Selected Physical Achievement of the Prisons Department	.. 261
9.80	Salient Features of the Toddy Workers' Welfare Fund	.. 262



## APPENDIX 1.1

*Selected Economic Indicators—All India*

Item	Unit	1970-71	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)
<i>Population and National Income</i>				
Population (As on 1st September)	Crores	54.1	67.8	69.3
Real National Income				
Aggregate	% change	5.6	7.7	4.6
Per capita	% change	3.3	5.3	2.8
GNP at Current Market Prices				
Aggregate	Rs. Crores	39,979	1,25,744	1,46,000
Per Capita	Rupees	739	1,855	2,100
Gross Domestic Saving	Rs. crores	6,783	27,853	33,521
	As % of GDP	16.8	22.2	23.3
Gross Domestic Capital Formation	Rs. crores	7,177	31,359	37,181
	As % of GDP.	17.8	24.9	25.9
Real per Capita Private Consumption	1970-71=100	100.0	104.5	107.4
Employment in the Organised Sector (March-end)	Lakhs	175	229	234
As % of Labour Force	%	9.7	10.2	10.1
<i>Agriculture</i>				
Value of Output at Current Prices	Rs. crores	17,531	47,170	47,660
	% change	10.9	37.9	1.0
Agricultural Production				
Potential Production Index	1967-70=100	105.4	133.6	136.4
Actual Production Index	1967-70=100	111.5	135.4	142.9
	% change	7.4	15.5	5.5
Kharif Foodgrains	Min. tonnes	69	78	79
Rabi Foodgrains	Min. tonnes	39	52	54
Total Foodgrains	Min. tonnes	108	130	133
	% change	8.9	18.2	2.3
Fertilizer Consumption (NPK)	Lakh tonnes	22.6	55.2	60.7
	% change	14.1	4.9	10.0
Price Index for Agricultural Commodities Group: March-end	1970-71=100	100.0	220.6	232.4
	% change		14.4	5.4
<i>Industry</i>				
Index of Industrial Production	1970=100	100.7	154.0	167.3
	% change	4.0	4.0	8.6
<i>Manufacturing</i>				
(i) Value Added at Current Prices	Rs. crores	2,874	11,800	13,570
	% change	15.8	22.9	15.0
(ii) Value of Output at Current Prices	Rs. crores	13,455	60,300	69,950
	% change	14.8	23.0	15.0
(iii) Capacity (a)	Index	100.0	190.7	195.3
	% change		4.4	2.4
(iv) Production (a)	Index	100.0	165.3	175.8
	% change		1.3	6.4
(v) Capacity Utilisation (a)	%	85.2	73.7	76.5

(a) refer to Calendar Year: 1970-71 as 1970.

APPENDIX I.1—(Contd.)

Item	Unit	1970-71	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)
Cement	Min. tonnes	14.3	18.7	21.1
	% change	3.6	6.3	12.8
Fertilisers (NPK)	Lakh tonnes	10.6	30.1	40.9
	% change	11.6	0.7	35.9
Saleable Steel incl. Mini Plants	Min. tonnes	5.00	8.1	8.8
	% change	0.0	3.8	10.0
Aluminium Ingots	Lakh tonnes	1.7	2.0	2.1
	% change	21.4	5.3	5.0
Engineering Industries (b)	1970=100	101.8	159.4	170.1
	% change	4.0	3.2	6.7
Value of Output at Current Prices	Rs. crores	4,016	18,450	20,850
	% change	19.4	22.1	13.0
Price Index for Manufactured Products Group: March-end	1970-71=100	100.0	266.6	260.6
	% change		14.8	-2.2
<i>Energy</i>				
Total Commercial Energy Consumption	Mtcr**	197	311	336
	% change	2.8	3.7	8.0
Coal Production (excl: Lignite)	Min. tonnes	73.0	114.0	124.9
	% change	4.7	9.7	9.6
Crude Oil Production	Min. tonnes	6.8	10.5	16.2
Imports of Crude Oil and Products (Net)	Min. tonnes	12.5	23.5	19.4
Consumption of Petroleum Products	Min. tonnes	19.1	32.3	33.9
	% change	7.3	3.2	5.0
<i>Electricity</i>				
Installed Generating Capacity (Public Utilities): March-end	Min. Kw.	14.71	30.21	31.93
Addition during the Year	Min. Kw.	0.61	1.76	1.72
	% change	4.3	6.2	5.7
Plant Load Factor (Thermal)	%	40	45	47
Electricity Generation: Total (Public Utilities)	Bln. Kwh.	55.8	111.6	122.9
	% change	7.4	5.7	10.1
Thermal	Bln. Kwh.	30.6	65.1	73.3
Hydel	Bln. Kwh.	25.2	46.5	49.6
Price Index for: Coal	1970-71=100	100.0	424.4	424.4
	% change		29.6	0.0
Petroleum Products	1970-71=100	100.0	476.6	512.8
	% change		39.8	9.7
Electricity	1970-71=100	100.0	251.1	290.4
	% change		10.4	15.7
<i>Transport:</i>				
Railways: Freight Traffic	Min. tonnes	168	196	221
	% change	-3.4	1.5	12.8
Cargo Handled at Major Ports	Min. tonnes	55.7	81.3	87.4
	% change	2.2	3.9	7.5

(b) Engineering Industries Include Basic Metals, Metal Products, Non-electrical Machinery, Electrical Machinery and Transport Equipment Groups.

\*\*Million tonnes of Coal replacement.

## APPENDIX 1.1—(Contd.)

Item	Unit	1970-71	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)
<i>Public Finance: Central, States &amp; UTS</i>				
Government Expenditure	Rs. crores	8,847	38,360	42,987
	% change	9.3	21.1	12.1
	As % of GNP	22.1	30.5	29.4
Deficit in Government Transactions (i.e. Increase in Net Bank Credit to Government from RBI & Banks)	Rs. crores	552	5,845	4,957
	As % of GNP	1.4	4.6	3.4
<i>Money, Banking and Prices</i>				
Schedule Commercial Banks:	Rs. crores	5,906	37,988	43,820
Deposits: March-end	% change	17.5	19.6	15.3
	As % of GNP	14.8	30.2	30.0
Credit: March-end	Rs. crores	4,684	25,371	29,642
	% change	18.0	17.8	16.8
Money Supply (M1): March-end	Rs. crores	5,730	23,210	24,896
	% change	12.0	16.4	7.1
Wholesale Price Index: March-end	1970-71=100	100.0	270.7	276.4
	% change	..	16.7	2.1
Consumer Price Index: March	1960=100	184	420	457
	% change	2.8	12.6	8.8
<i>External Transactions</i>				
Exports	Rs. crores	1,535	6,711	7,796
	% change	8.6	3.9	16.2
Imports	Rs. crores	1,634	12,524	13,589
	% change	3.3	38.8	8.5
Of which Crude Oil and Products	Min tonnes	12.8	24.9	20.3
	Rs. crores	137	5,587	5,185
Capital Equipment	Rs. crores	395	1,573	1,700
Edible Oils	Lakh tonnes	0.9	10.7	10.0
	Rs. crores	23	490	525
Fertilisers	Rs. crores	77	590	716
Wheat	Lakh tonnes	29.2	2.6	22.6
	Rs. crores	173	58	500
Trade Balance	Rs. crores	-99	-5,813	-5,793
As % of GNP	%	0.2	4.6	4.0
As % of Imports	%	6.1	46.4	42.6
Foreign Exchange Reserves Excluding Gold and SDRs: March end	Rs. crores	438	4,822	3,354
Debt Servicing	Rs. crores	412	687	837
Current Account Deficit	Rs. crores	-331	-2,790	-3,600
As % of GNP.		0.8	2.2	2.5
Outstanding External Debt	Rs. crores	6,577	13,479	15,458

## Net State Domestic Product at Factor Cost by Industry of Origin—Kerala 1970-71 to 1980-81 at Current Prices

(Rs. in lakhs)

Industry of origin	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Agriculture	58263	54445	63726	85685	93417	91510	99728	98402	107648	121983	131113
2. Forestry and Logging	1102	1084	1429	2140	2030	3165	2614	3932	5147	5804	7034
3. Fishing	2569	2827	3299	4512	5619	6615	5431	6439	7671	6499	7927
4. Mining and Quarrying	96	126	119	159	188	199	365	356	416	598	475
Sub Total: Primary	62030	58482	68573	92496	101254	101489	108198	109129	120882	134884	146549
5. Manufacturing	15632	17889	19970	22920	26204	29646	32109	33788	37763	47387	55717
(i) Registered	7031	8964	9443	11205	13520	14430	16605	18492	19926	24950	28793
(ii) Un-registered	8601	8925	10527	11715	12684	15216	15504	15296	17837	22437	26924
6. Construction	3668	4095	5175	5187	5931	7198	7017	8397	9110	10034	11106
7. Electricity, Gas and Water Supply	1181	1387	1542	1809	2091	2317	3254	4601	6494	6528	6632
Sub Total: Secondary	20481	23371	26687	29916	34226	39161	42380	46786	53967	63949	79455
8. Transport, Storage and Communications	6063	6873	6645	8499	11094	13751	16058	17501	18061	18903	18749
(i) Railways	639	614	630	570	734	940	1076	1137	1123	1151	1157
(ii) Transport by Other Means and Storage	4580	5239	5013	6840	9067	11313	13141	14455	14680	15026	15353
(iii) Communication	844	1020	1002	1089	1293	1498	1841	1909	2258	2727	2238
9. Trade, Hotels and Restaurants	10239	10911	12258	13946	17098	19913	21295	23389	22562	27860	29841
Transport, Communication & Trade	16302	17784	18903	22445	28192	33664	37353	40890	40623	46763	48590
10. Banking and Insurance	1629	2330	2604	3260	4136	5115	5809	7037	7730	8533	9363
11. Real Estate, Ownership of Dwelling etc.	2774	2732	2918	3379	3292	3747	4306	4918	6066	6919	7424
Finance and Real Estate	4403	5062	5522	6639	7428	8862	10115	11955	13796	15452	16787
12. Public Administration	3712	4067	4522	5581	6550	7282	7902	8254	8749	10592	12161
13. Other Services	12894	13782	15159	16981	21425	25054	26884	29510	31555	31811	33879
Community and Personal Services	16606	17849	19681	22562	27975	32326	34786	37564	40304	42403	46040
Sub-Total Tertiary	37311	40695	44106	51646	63595	74852	82254	90409	94723	104618	111417
Net State Domestic Product at Factor cost	119822	122548	139366	174058	199075	215502	232772	246324	266972	303451	331421
Population ('000 persons)	21126	21571	22025	22473	22914	23345	23763	24167	24554	24920	25264
Per-capita Income (Rs.)	567.18	568.11	632.76	774.52	868.79	929.12	979.56	1019.26	1095.43	1217.70	1311.83

Net State Domestic Product at Factor Cost by Industry of Origin—Kerala 1970-71—1980-81 at Constant 1970-71 prices

(Rs. in lakhs)

Industry of Origin	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Agriculture	58263	60712	60419	59435	60455	62863	60395	59346	59681	59933	58990
2. Forestry and Logging	1102	1063	1045	1223	1068	1302	1175	1132	995	925	1028
3. Fishing	2569	2804	3030	2817	2996	2919	1923	2302	2526	2156	2204
4. Mining and Quarrying	96	105	96	99	89	76	153	148	122	199	134
Sub-total—Primary	62030	64684	64590	63574	64608	67160	63646	62928	63324	63153	62356
5. Manufacturing	15632	17338	18253	17974	17214	18355	19348	19294	19710	21825	22032
(i) Registered	7031	8773	8611	8287	7946	8184	9393	10148	10113	11330	11966
(ii) Un-registered	8601	8565	9642	9687	9268	10171	9955	9146	9597	10495	10666
6. Construction	3668	3996	4643	4276	4276	4507	4154	4692	4910	5201	5482
7. Electricity, Gas and Water Supply	1181	1271	1438	1563	1685	1850	2130	2455	2959	3060	3108
Sub-total: Secondary	20481	22605	24334	23813	23175	24712	25632	26441	27579	30086	30622
8. Transport, Storage and Communication	6063	6346	6578	6550	7193	7629	7980	8377	8722	9546	8653
(i) Railways	639	596	643	633	631	714	784	880	826	852	843
(ii) Transport by Other Means and Storage	4580	4781	4983	4937	5502	5747	6055	6391	6603	7470	6575
(iii) Communication	844	969	952	980	1060	1168	1141	1106	1293	1224	1235
9. Trade and Hotels and Restaurants	10239	10649	10781	10642	10877	10908	10284	10343	10450	10509	10578
Trade	16302	16995	17359	17192	18070	18537	18264	18720	19172	20055	19231
Banking and Insurance	1629	2214	2318	2412	2316	2609	2820	3350	3930	4547	4669
11. Real Estate, Ownership of Dwellings etc.	2774	2650	2801	2805	2666	2720	3130	3935	4428	5466	5635
Finance and Real Estate	4403	4864	5119	5217	4982	5328	5950	7285	8378	10013	10304
12. Public Administration	3712	3823	4476	5302	5320	5316	5690	5590	5704	6895	7917
13. Other Services	12894	13127	13388	13563	13864	14577	14920	15882	16149	16634	18577
Community & Personal Service	16606	16950	17864	18864	19184	19893	20610	21472	21853	23529	26494
Sub total Tertiary	37511	38809	40342	41273	42236	43758	44824	47477	49403	53597	56029
Net State Domestic Product at Factor cost	119822	126098	129266	128660	130019	135630	134102	136046	140306	146886	149007
Population ('000 Persons)	21126	21571	22025	22473	22914	23345	23763	24167	24554	24920	25264
Per-capita Income (Rs.)	567.18	584.57	586.91	572.51	567.42	580.98	564.81	562.94	571.42	589.23	589.80

## District-wise Break-up of Net State Domestic Product of Kerala at Current Prices-1980-81

(Rs. in lakhs)

Industry of Origin	(Rs. in lakhs)										Kerala State		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		(11)	(12)
	Trivandrum	Quilon	Alleppey	Kottayam	Idukki	Ernakulam	Trichur	Palghat	Malappuram	Kozhikode	Cannanore		
1. Agriculture	9938	13728	10187	12102	8509	12469	10633	10922	10673	14252	17700	131113	
2. Forestry and Logging	146	1638	1	17	625	51	772	327	1146	1202	1109	7034	
3. Fishing	971	2164	1061	70	6	1353	567	18	351	580	786	7927	
4. Mining & Quarrying	87	135	21	93	1	15	13	5	7	17	81	475	
Sub total: Primary	11142	17665	11270	12282	9141	13888	11985	11272	12177	16051	19676	146549	
5. Manufacturing	5953	6962	4416	2598	2211	13113	4525	3706	1215	5867	5151	55717	
(i) Registered	2453	4221	1088	1922	1952	9766	2223	1014	472	2410	1872	28793	
(ii) Unregistered	3500	2741	3328	1276	259	3347	2302	2692	743	3457	3279	26924	
6. Construction	1043	914	958	782	837	1942	1004	860	700	1013	1053	11106	
7. Electricity, Gas and Water Supply	1274	909	614	799	252	804	556	437	150	525	312	6632	
(i) Electricity	1212	889	600	790	248	771	552	428	146	513	299	6448	
(ii) Water Supply	62	20	14	9	4	33	4	9	4	12	13	184	
Sub total: Secondary	8270	8785	5988	4179	3300	15859	6085	5003	2065	7405	6516	73455	
8. Transport, Storage & Communication	1215	1040	2421	730	114	3880	545	1264	562	5503	1474	18748	
(i) Railways	49	133	38	52	..	109	105	191	142	143	195	1157	
(ii) Transport by Other Means and Storage	894	717	2185	520	15	3527	129	853	310	5136	1067	15353	
(iii) Communication	272	190	198	158	99	244	311	220	110	224	212	2238	
9. Trade and Hotel and Restaurants	2868	2913	3297	2080	501	1829	3268	2360	2581	3993	4151	29841	
Trade, Transport and Communication	4083	3953	5718	2810	615	5709	3813	3624	3143	9496	5625	48589	
10. Banking and Insurance	1093	917	801	734	169	2287	1060	618	268	707	710	9364	
11. Real Estate, Ownership of Dwelling etc. Finance and Real Estate	541	870	570	602	395	964	1014	754	511	610	593	7424	
Finance and Real Estate	1634	1787	1371	1936	564	3251	2074	1372	779	1317	1303	16788	
12. Public Administration & Defence	2996	1184	1170	765	247	1309	1210	814	530	1028	908	12161	
13. Other Services	4133	3557	3652	2710	790	3923	3547	2575	2216	3625	3151	33879	
Community & Personal Services	7129	4741	4822	3475	1037	5232	4757	3389	2746	4653	4059	46040	
Sub Total: Tertiary	12846	10481	11911	7621	2216	14192	10644	8385	6668	15466	10987	111417	
Net Domestic Product at Factor Cost	32258	36931	29169	24082	14657	43939	28714	24660	20910	38922	37179	331421	
Population	2576857	2791839	2330012	1671891	965871	2519382	2423620	2090722	2388070	2615546	2950191	25264000	
Per-capita income (Rs.)	1251.84	1322.82	1251.88	1440.41	1517.49	1744.04	1184.76	1214.35	875.60	1488.10	1260.22	1311.83	

## District-wise Break-up of Net State Domestic Product of Kerala at 1970-71 prices—1980-81

(Rs. lakhs)

Industry of Origin	Trivandrum	Quilon	Alleppey	Kottayam	Idukki	Ernakulam	Trichur	Palghat	Malappuram	Kozhikode	Cannanore	Kerala State
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Agriculture	4660	6577	4998	5421	3203	5787	5067	5339	4843	6033	7120	58990
2. Forestry and Logging	21	239	..	3	91	7	113	48	168	176	162	1028
3. Fishing	273	606	293	18	1	370	157	5	99	162	220	2204
4. Mining and quarrying	25	38	6	26	..	4	4	1	2	5	23	194
Sub total: Primary	4979	7460	5237	5468	3295	6168	5941	5993	5112	6378	7525	62356
5. Manufacturing	2355	2752	1748	1027	873	5182	1789	1467	480	2321	2088	22032
(i) Registered	968	1666	430	522	771	3856	877	400	186	951	799	11966
(ii) Unregistered	1387	1086	1318	505	102	1326	912	1067	294	1370	1299	10666
6. Construction	515	451	473	386	413	959	496	424	345	500	520	5482
7. Electricity, Gas & Water Supply	597	426	288	375	118	376	261	204	71	246	146	3108
(i) Electricity	569	417	282	371	116	361	259	200	69	241	140	3025
(ii) Water Supply	28	9	6	4	2	15	2	4	2	5	6	83
Sub total: Secondary	3467	3629	2509	1788	1404	6517	2546	2095	896	3067	2704	30622
8. Transport, Storage and Communication	569	509	1073	349	62	1723	302	625	298	2427	716	8653
(i) Railways	36	97	28	38	..	79	76	139	104	104	142	843
(ii) Transport by Other Means and Storage	383	307	936	223	7	1510	55	365	133	2199	457	6575
(iii) Communication	150	105	109	88	55	134	171	121	61	124	117	1235
9. Trade, Hotels and Restaurants	1017	1032	1169	737	178	649	1158	837	915	1415	1471	10578
Transport, Communication & Trade	1586	1541	2242	1086	240	2372	1460	1462	1213	3842	2187	19231
10. Banking and Insurance	545	457	399	366	84	1140	529	308	194	353	354	4669
11. Real Estate, Ownership of Dwellings etc.	508	516	572	446	166	961	608	373	708	359	418	5635
Finance & Real Estate	1053	973	971	812	250	2101	1137	681	842	712	772	10304
12. Public Administration Defence	1951	771	761	498	161	852	788	530	345	669	591	7917
13. Other Services	2266	1950	2003	1486	433	2151	1945	1412	1215	1988	1728	18577
Community & Personal Services	4217	2721	2764	1984	594	3003	2733	1942	1560	2657	2319	26494
Sub total: Tertiary	6856	5233	5977	3882	1084	7476	5330	4085	3615	7211	5278	56029
Net Domestic Product at Factor Cost	15302	16324	13729	11138	5783	20161	13217	11573	9623	16656	15507	149007
Population	2576857	2791839	2330012	1671891	965871	2519982	2423620	2030722	2388070	2615546	2950191	25264000
Per capita Income (Rs.)	593.82	584.70	588.97	666.19	598.75	800.24	545.34	569.90	402.96	636.81	525.63	589.80

## District-wise Break-up of Net State Domestic Product of Kerala—1970-71 at Constant Prices

(Rs. lakhs)

Industry of Origin	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Trivandrum	Quilon	Alleppey	Kottayam	Idukki	Ernakulam	Trichur	Palghat	Malappuram	Kozhikode	Cannanore	Kerala State	
1. Agriculture	5139	8064	5989	5535	2732	4725	4981	4966	4562	5512	6048	58263	
2. Forestry & Logging	102	394	..	8	209	4	43	23	98	114	112	1102	
3. Fishing	389	717	299	10	1	355	133	2	98	246	319	2569	
4. Mining and Quarrying	18	27	4	19	..	3	3	1	2	3	16	96	
Sub total: Primary	5648	9202	6292	5572	2942	5087	5165	4992	4760	5875	6495	62030	
5. Manufacturing	1415	1839	1319	862	349	3339	1725	1132	370	1773	1509	15632	
(i) Registered	297	963	256	454	266	2270	990	272	133	669	461	7031	
(ii) Unregistered	1118	876	1063	408	83	1069	735	860	237	1104	1048	8601	
6. Construction	344	302	317	258	277	641	332	284	231	334	348	3668	
7. Electricity, Gas and Water Supply	228	162	109	141	45	144	98	77	27	94	56	1181	
(i) Electricity	214	157	106	139	44	136	97	75	26	91	53	1198	
(ii) Water Supply	14	5	3	2	1	8	1	2	1	3	3	43	
Sub total: Secondary	1987	2303	1745	1261	671	4124	2155	1493	628	2201	1913	20481	
8. Transport, Storage and Communication	511	455	526	382	289	1407	517	390	435	588	563	6063	
(i) Railways	27	74	21	29	..	60	58	105	79	79	107	639	
(ii) Transport by Other Means & Storage	381	309	430	293	252	1255	342	202	315	425	376	4580	
(iii) Communication	103	72	75	60	37	92	117	83	41	84	80	844	
9. Trade, Hotels and Restaurants	984	999	1131	714	172	628	1121	810	886	1370	1424	10239	
Trade, Transport & Communication	1495	1454	1657	1096	461	2035	1638	1200	1321	1958	1987	16302	
Sub total	190	159	139	128	29	998	184	108	47	123	124	1629	
10. Banking and Insurance	262	232	254	231	93	442	321	201	127	391	220	2774	
11. Real Estate, Ownership of Dwellings etc.	452	391	393	359	122	840	505	309	174	514	344	4403	
Finance and Real Estate Sub-total	921	363	369	235	75	397	351	249	164	308	280	3712	
12. Public Administration	1659	1341	1377	1164	273	1380	1385	904	837	1377	1197	12894	
13. Other Services	2580	1704	1746	1399	348	1777	1736	1153	1001	1685	1477	16606	
Community and Personal Services—Sub total	4527	3549	3796	2854	931	4652	3879	2662	2496	4157	3808	37311	
Sub total: Tertiary	12162	15054	11833	9687	4544	13863	11199	9147	7884	12233	12216	119822	
Net Domestic Product at Factor Cost	2175806	2387800	2103678	1523070	757669	2141236	2106721	1667865	1837111	2084407	2340637	21126000	
Population	558.97	630.45	562.49	636.02	599.73	647.43	531.58	548.43	429.15	586.88	521.91	567.18	
Per capita Income (Rs.)													



## APPENDIX 2.6

*Estimates of District Income at Constant and Current Prices*

District	1970-71		1980-81			
	Income (Rs. lakhs)	Percentage	Income at current Prices (Rs. lakhs)	Percentage	Income at constant Prices (Rs. in lakhs)	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trivandrum	12162	10.15	32258	9.73	15302	10.26
2. Quilon	15054	12.56	36931	11.14	16324	10.96
3. Alleppey	11830	9.88	29169	8.80	13723	9.21
4. Kottayam	9687	8.08	24082	7.27	11138	7.47
5. Idukki	4544	3.79	14657	4.42	5783	3.88
6. Ernakulam	13863	11.57	43939	13.26	20161	13.53
7. Trichur	11199	9.35	28714	8.66	13217	8.87
8. Palghat	9147	7.63	24660	7.44	11573	7.77
9. Malappuram	7884	6.58	20910	6.31	9623	6.46
10. Kozhikode	12233	10.21	38922	11.74	16656	11.18
11. Cannanore	12216	10.20	37179	11.22	15507	10.41
State	119822	100.00	331421	100.00	149007	100.00

## APPENDIX 2.7

*Estimate of Per Capita Income of Districts in 1970-71 and 1980-81*

(Rs.)

District	1970-71		1980-81			
	Amount	Rank	At 1970-71 Prices		At Current Prices	
			Amount	Rank	Amount	Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trivandrum	558.97	7	593.82	5	1251.84	8
2. Quilon	630.45	3	584.70	7	1022.82	5
3. Alleppey	562.49	6	588.97	6	1251.88	7
4. Kottayam	636.02	2	666.19	2	1440.41	4
5. Idukki	599.73	4	598.73	4	1517.49	2
6. Ernakulam	647.43	1	800.24	1	1744.04	1
7. Trichur	531.58	9	545.34	9	1184.76	10
8. Palghat	548.43	8	569.90	8	1214.35	9
9. Malappuram	429.15	11	402.96	11	875.60	11
10. Kozhikode	586.88	5	636.81	3	1488.10	3
11. Cannanore	521.91	10	525.83	10	1260.22	6
State	567.18		589.80		1311.83	

APPENDIX 2.8  
Sectoral Contribution of District Income

(Per cent)

District	1970-71			1980-81 (At 1970-71 Prices)			1980-81 (At Current Prices)		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Trivandrum	46.44	16.34	37.22	32.54	22.66	44.80	34.54	25.64	39.82
2. Quilon	61.13	15.30	23.57	45.70	22.23	32.07	47.83	23.79	28.38
3. Alleppey	53.17	14.75	32.08	38.16	18.28	43.56	38.64	20.53	40.83
4. Kottayam	57.52	13.02	29.46	49.09	16.05	34.86	51.00	17.35	31.65
5. Idukki	64.74	14.77	20.49	56.98	24.28	18.74	62.37	22.51	15.12
6. Ernakulam	36.69	29.75	33.56	30.59	32.33	37.08	31.61	36.09	32.30
7. Trichur	46.12	19.24	34.64	40.41	19.26	40.33	41.74	21.19	37.07
8. Palghat	54.58	16.32	29.10	46.60	18.10	35.30	45.71	20.29	34.00
9. Malappuram	60.37	7.97	31.66	53.12	9.31	37.57	58.23	9.88	31.89
10. Kozhikode	48.03	17.99	33.98	38.29	18.42	43.29	41.24	19.02	39.74
11. Cannanore	53.16	15.66	31.18	48.53	17.44	34.03	52.92	17.53	29.55
State	51.77	17.09	31.14	41.85	20.55	37.60	44.22	22.16	33.62

## APPENDIX 2.9

## Urban Content of the population of States in India

(Percentage)

India/State	Percentage of Urban Total Population		Percentage of India's Urban Population		Ratio
	1971	1981	1971	1981	
(1)	(2)	(3)	(4)	(5)	(6)
INDIA (Excluding Assam)	20.22	23.71	100.00	100.00	..
<i>States</i>					
1. Andhra Pradesh	19.31	23.25	7.85	7.91	5
2. Assam	NA	..	..	..	..
3. Bihar	10.00	12.46	5.27	5.52	9
4. Gujarat	28.08	31.08	7.01	6.71	8
5. Haryana	17.66	21.96	1.66	1.79	14
6. Himachal Pradesh	6.99	7.72	0.23	0.21	17
7. Jammu and Kashmir	NA	21.00	..	0.79	15
8. Karnataka	24.31	28.91	6.66	6.80	6
9. Kerala	16.24	18.78	3.24	3.03	11
10. Madhya Pradesh	16.29	20.31	6.34	6.73	7
11. Maharashtra	31.17	35.03	14.69	13.95	1
12. Manipur	13.19	26.44	0.13	0.24	16
13. Meghalaya	14.55	18.03	0.14	0.15	18
14. Nagaland	9.95	15.54	0.05	0.07	20
15. Orissa	8.41	11.82	1.72	1.97	13
16. Punjab	23.73	27.72	3.01	2.98	12
17. Rajasthan	17.63	20.93	4.25	4.53	10
18. Sikkim	9.37	16.23	0.02	0.03	21
19. Tamil Nadu	30.26	32.98	11.65	10.11	3
20. Tripura	10.43	10.98	0.15	0.14	19
21. Uttar Pradesh	14.02	18.01	11.58	12.686	2
22. West Bengal	24.75	26.49	10.25	9.17	4

## APPENDIX 2.10

*Estimated Annual Birth and Death Rates 1977-80—State-wise*

State (1)	Birth Rate (No. of Live Births per Thousand Population)				Death Rate (No. of Deaths per thousand Population)			
	1977 (2)	1978 (3)	1979 (4)	1980 (5)	1977 (6)	1978 (7)	1979 (8)	1980 (9)
1. Andhra Pradesh	32.3	33.6	32.1	31.0	14.2	13.3	12.6	11.3
2. Assam	30.1	30.8	33.8	31.9	12.9	13.2	11.2	10.7
3. Bihar	30.1	31.2	38.4	37.8	12.1	13.3	15.1	15.0
4. Gujarat	36.1	35.8	34.9	35.8	14.8	12.7	12.9	12.2
5. Haryana	34.6	33.5	36.6	37.2	13.7	13.5	10.5	11.2
6. Himachal Pradesh	32.5	27.3	30.6	32.1	11.6	11.8	10.5	10.4
7. Jammu and Kashmir	31.6	31.8	31.1	31.3	11.3	11.7	9.3	9.6
8. Karnataka	26.3	29.2	28.1	27.6	11.1	12.0	10.4	9.6
9. Kerala	25.8	25.2	25.8	26.8	7.3	7.0	6.9	7.0
10. Madhya Pradesh	38.3	37.2	37.8	37.1	17.9	15.1	15.3	15.2
11. Maharashtra	26.2	26.9	27.2	29.3	12.8	10.3	10.7	9.7
12. Manipur	26.6	32.2	28.6	30.9	6.3	7.6	6.7	6.3
13. Meghalaya	32.5	32.0	32.2	31.2	14.1	10.2	12.1	11.1
14. Nagaland*	20.9	22.9	24.9	20.9	6.7	5.5	8.3	7.1
15. Orissa	29.9	32.9	31.0	31.6	16.6	14.1	14.8	14.3
16. Punjab	31.0	24.9	28.7	29.9	10.8	11.6	9.5	8.7
17. Rajasthan	33.8	35.5	35.5	38.7	14.8	15.6	12.8	13.4
18. Tamil Nadu	29.8	28.8	28.9	27.9	13.7	12.8	12.1	11.2
19. Tripura	28.2	28.8	28.4	25.9	9.4	11.6	11.4	7.8
20. Uttar Pradesh	40.3	40.4	39.6	39.4	19.1	20.2	16.2	16.6
21. West Bengal	32.1	28.4	32.7	31.7	11.7	11.6	12.1	10.9
All India	33.0†	33.3†	33.7	33.7	14.7	14.2	13.0	12.6

\*Rural

† Excluding Bihar and West Bengal

Source: Sample Registration Bulletin, Vol.XIV No. 1 June 1982, R.G. of India.

## APPENDIX 3.1

## Index Numbers of Wholesale Prices—By Groups and Sub Groups—All India

Average Months/Average of Weeks ended on Saturdays	Weight	1981							
		December	January	February	March	April	May	June	July
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All Commodities	1000.00	278.1	279.2	277.7	276.4	275.2	277.4	284.9	290.8
I. Primary Articles	416.67	264.3	265.5	263.5	260.0	256.3	259.4	269.4	278.2
1. Food Articles	297.99	235.5	237.1	236.8	235.0	231.0	234.7	244.7	254.7
(i) Foodgrains	129.22	235.1	237.9	236.3	234.2	234.3	230.6	234.7	241.5
(a) Cereals	107.43	216.7	220.2	220.8	220.9	221.2	218.2	221.7	228.8
(b) Pulses	21.79	326.1	325.4	312.6	300.1	298.9	291.6	298.6	304.2
(ii) Fruits and Vegetables	61.32	237.7	238.3	238.8	235.8	223.6	238.0	256.9	284.2
(iii) Milk and Milk Products	61.50	214.2	213.6	218.8	223.2	216.9	223.5	229.2	232.8
(iv) Eggs, Fish and Meat	18.97	334.8	336.8	335.6	316.5	314.8	322.6	347.1	347.2
(v) Condiments and Spices	10.94	185.7	191.7	178.9	177.1	176.2	174.4	187.7	205.1
(vi) Other Food Articles	16.04	228.5	229.7	223.7	226.0	225.8	236.0	256.1	257.1
2. Non Food Articles	106.21	238.7	240.9	236.4	229.6	226.3	228.1	239.4	245.4
(i) Fibres	31.73	218.8	217.5	208.8	198.8	195.3	197.9	203.6	206.3
(ii) Oil Seeds	42.01	244.2	249.1	241.4	231.0	225.9	229.2	242.9	248.3
(iii) Other Non Food Articles	32.47	251.0	253.2	256.7	257.8	257.0	256.3	269.9	279.9
3. Minerals	12.47	1168.5	1152.0	1133.6	1114.8	1114.6	1114.9	1113.2	1118.9
Petroleum Crude and Natural Gas	6.02	2119.1	2084.5	2045.5	2006.4	2006.4	2006.4	2006.4	2022.0
II. Fuel Power, Light and Lubricants	84.59	437.5	437.6	437.7	437.7	437.7	439.1	446.5	455.3
III. Manufactured Products	498.74	262.6	263.8	262.4	262.7	263.4	265.1	270.5	273.4

Average months/Average of Weeks ended on Saturdays	1982					Percentage variation over December 1981
	August	September	October	November	December	
(1)	(11)	(12)	(13)	(14)	(15)	(16)
All Commodities	293.7	290.8	289.3	289.2	287.0	2.7
I. Primary Articles	282.3	277.3	273.2	273.8	272.8	2.8
1. Food Articles	259.2	252.6	247.5	247.4	245.6	3.6
(i) Food grains	253.0	252.8	250.9	251.8	249.4	5.8
(a) Cereals	238.8	239.5	239.3	241.4	238.9	9.9
(b) Pulses	323.1	318.2	308.6	303.5	301.0	(-) 7.7
(ii) Fruits and Vegetables	282.4	246.8	234.8	238.5	232.8	(-) 2.1
(iii) Milk and Milk products	232.4	233.1	233.1	225.2	227.4	3.0
(iv) Eggs, Fish and Meat	348.7	365.3	340.1	348.5	356.7	6.5
(v) Condiments and Spices	208.5	201.5	198.2	193.8	187.7	1.1
(vi) Other Food Articles	252.3	250.5	248.6	247.4	241.0	5.5
2. Non Food Articles	248.7	247.4	245.6	248.3	249.3	4.7
(i) Fibres	205.0	204.1	196.0	185.9	188.4	(-) 13.9
(ii) Oil Seeds	255.6	253.4	254.4	262.0	258.7	5.9
(iii) Other Non Food Articles	282.3	282.0	283.1	292.3	296.7	19.3
3. Minerals	1120.8	1121.5	1122.2	1122.2	1122.4	(-) 4.0
Petroleum Crude and Natural Gas	2025.9	2025.9	2025.9	2025.9	2025.9	(-) 4.4
II. Fuel Power, Light and Lubricants	455.4	456.8	457.2	457.2	457.2	4.5
III. Manufactured Products	275.7	273.9	274.3	273.4	270.1	2.1

## APPENDIX 3.1 (Contd.)

Index Numbers of Wholesale Prices—By groups and Sub Groups—All India

Average months/Average of weeks ended on Saturday	Weight	1982							
		1981 December	January	February	March	April	May	June	July
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Manufactured Products (Item-wise)									
1. Food Products	133.22	265.3	267.8	255.7	247.3	242.8	247.7	267.0	274.6
(i) Dairy Products	3.88	286.7	289.6	292.0	301.6	299.3	301.6	301.9	301.9
(ii) Sugar, Khandasari and Gur	72.41	279.6	281.1	260.0	246.4	241.2	249.4	277.8	288.3
(iii) Edible Oils	37.16	251.5	255.9	253.7	252.2	247.3	246.5	257.3	263.2
2. Beverages, Tobacco and Tobacco Products	27.08	217.8	216.6	216.6	216.7	216.7	216.5	215.7	215.7
3. Textiles	110.26	222.9	223.5	224.4	226.1	228.1	227.1	227.6	229.1
4. Paper and Paper Products	8.51	287.2	289.7	294.2	304.2	301.0	304.6	304.6	302.9
5. Leather and Leather Products	3.85	363.6	361.6	359.5	357.8	359.5	356.5	359.2	360.6
6. Rubber Products	12.07	292.4	293.3	293.4	300.9	302.3	303.3	303.8	306.6
7. Chemical and Chemical Products	55.48	262.8	263.9	263.6	264.2	263.3	263.8	264.3	265.3
(i) Fertilisers	12.52	278.5	278.5	278.2	278.0	278.0	278.0	278.0	277.8
(ii) Pesticides	1.16	361.2	361.2	361.2	361.2	361.2	361.2	361.2	361.2
(iii) Drugs and Medicines	9.83	156.1	158.8	159.5	159.3	160.5	160.6	160.4	161.2
8. Non-Metallic Mineral Products	14.15	315.2	316.6	317.4	361.7	360.4	358.8	359.2	369.1
9. Basic Metals, Alloys and Metal Products	59.74	319.2	320.6	333.1	333.9	348.3	348.3	348.1	348.9
10. Machinery and Transport Equipment	67.18	266.7	267.6	267.8	271.5	270.0	273.7	275.2	275.4
(i) Motor Vehicles and Parts	13.73	318.6	317.7	317.7	324.2	318.8	324.2	325.7	326.3
(ii) Miscellaneous Products	7.20	239.3	239.7	241.4	241.0	240.9	241.0	241.2	240.7

Average Months/Average of weeks ended on Saturdays	1982					Percentage variation over December 1981
	August	September	October	November	December	
(1)	(11)	(12)	(13)	(14)	(15)	(16)
Manufactured Products (Item-wise)						
1. Food Products	281.5	271.8	270.5	267.7	252.0	(—) 5.1
(i) Dairy Products	301.9	301.9	301.9	301.9	301.9	5.3
(ii) Sugar, Khandasari and Gur	295.4	279.9	277.3	263.6	239.2	(—) 14.4
(iii) Edible Oils	269.2	265.8	265.0	267.5	268.9	6.9
2. Beverages, Tobacco and Tobacco Products	215.7	215.7	215.5	215.5	215.6	(—) 0.5
3. Textiles	229.9	231.3	232.8	233.0	233.0	4.5
4. Paper and Paper Products	302.5	301.4	301.4	300.6	298.2	2.6
5. Leather and Leather Products	356.9	356.9	357.1	358.9	362.1	(—) 0.4
6. Rubber Products	308.2	307.4	306.1	306.5	306.5	4.8
7. Chemical and Chemical Products	266.4	268.6	269.4	270.0	269.8	2.6
(i) Fertilisers	277.8	277.7	277.7	277.7	277.7	(—) 0.3
(ii) Pesticides	379.7	379.7	390.2	397.2	397.2	10.2
(iii) Drugs and Medicines	162.3	174.6	174.1	174.1	173.1	9.8
8. Non-Metallic Mineral Products	371.9	373.1	374.3	375.3	375.3	18.9
9. Basic Metals, Alloys and Metal Products	349.3	350.3	352.8	356.9	357.1	7.6
10. Machinery and Transport Equipment	278.6	275.9	275.9	276.4	276.8	2.9
(i) Motor Vehicles and Parts	326.3	326.3	326.5	326.6	326.6	0.8
(ii) Miscellaneous Products	240.7	242.0	242.4	242.4	242.6	1.2

Source: Centre for Monitoring Indian Economy, Bombay.

## APPENDIX 3.2

*Consumer Price Index Numbers for Industrial Workers—All India and Selected Centres*

Centre	1981	1982						
	December	January	February	March	April	May	June	July
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All India	460	459	458	457	459	462	470	478
Ahamedabad	443	460	465	459	461	466	472	479
Alwaye	464	466	470	466	460	468	471	481
Bangalore	523	524	520	516	514	517	520	528
Bombay	469	468	469	468	473	479	488	496
Calcutta	426	419	413	416	422	430	437	439
Coimbatore	489	481	481	473	471	476	485	482
Delhi <sup>1</sup>	474	476	474	484	493	495	500	506
Gwalior	468	469	472	477	476	479	490	504
Hyderabad	476	468	470	462	465	470	476	491
Jamshedpur	430	433	434	443	444	440	448	451
Madras	461	454	453	448	447	444	452	464
Madurai	492	474	466	463	470	473	480	502
Mundakayam	456	457	448	444	443	443	449	457
Nagpur	479	485	480	477	476	478	482	496

*Source:* Directorate of Economics and Statistics, Trivandrum.

## APPENDIX 3.3

Consumer Price Index Number for Agricultural Labourers (July 1960—June 1961=100)

State	1981 December	1982						
		January	February	March	April	May	June	July
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All India	454	451	445	440	440	439	443	453
Andhra Pradesh	422	421	412	401	395	389	397	406
Assam†*	420	416	414	416	421	461	461	476
Bihar	481	478	473	473	475	466	469	480
Gujarat	402	398	386	386	382	382	382	385
Jammu and Kashmir	429	428	422	423	421	423	433	438
Karnataka	471	476	476	456	450	451	438	438
Kerala	430	429	422	419	417	421	431	444
Madhya Pradesh	456	450	450	447	443	442	450	464
Maharashtra	471	474	462	443	433	432	431	442
Orissa	485	491	490	500	513	527	550	572
Punjab†	472	466	451	451	458	454	466	473
Rajasthan	467	464	451	448	441	425	432	437
Tamil Nadu	449	434	427	413	408	409	412	423
Uttar Pradesh	445	438	431	430	435	423	430	441
West Bengal	448	450	448	455	461	469	469	477

Note: Annual Data Relate to the year July-June.

\* Including Manipur, Meghalaya and Tripura.

† Including Delhi, Haryana and Himachal Pradesh.

Source: RBI Bulletin.

## APPENDIX 3.4

*Consumer Price Index Numbers For Urban Non-Manual Employees—All India and Selected Centres (1961=100)*

Centre	1981			1982				
	December	January	February	March	April	May	June	July
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All India*	420	421	420	423	425	428	433	442
Bombay	401	403	403	403	414	423	429	434
Delhi and New Delhi	398	396	398	408	411	418	422	431
Culcutta	374	374	371	374	372	375	376	378
Madras	450	451	449	447	445	446	452	462
Hyderabad-Secunderabad	450	449	448	447	450	451	459	468
Bangalore	439	441	442	440	442	445	446	448
Lucknow	406	405	405	412	410	412	416	432
Ahmedabad	403	403	401	401	401	403	409	419
Jaipur	462	466	466	471	473	472	483	499
Patna	415	416	415	422	425	426	433	448
Srinagar	456	454	456	460	457	454	453	453
Trivandrum	474	480	477	476	477	479	485	489
Cuttack-Bhubaneswar	407	407	410	413	412	420	427	435
Bhopal	447	441	447	448	448	448	456	473
Chandigarh	408	406	408	414	416	420	425	435
Shillong	398	406	408	412	433	438	446	456

\* Based on Indices of 45 Cities and Towns.

Source: RBI Bulletin.



## APPENDIX 3.5

*Wholesale Price Index of Agricultural Commodities—Kerala 1982 (Monthly Indices)*

Group	January	February	March	April	May	June	July	August	Sept- ember	Octo- ber	Novem- ber
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Rice	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7
2. Molasses	448.3	412.1	401.6	403.7	393.4	435.9	400.0	380.5	380.5	419.7	479.6
3. Condiments and Spices	365.2	375.0	402.5	433.8	513.6	583.3	608.9	452.2	452.9	376.0	346.8
4. Fruits and Vegetables	771.3	782.5	797.0	709.8	725.8	719.2	725.6	725.6	723.3	740.5	735.6
5. Food Crops	406.9	408.9	415.8	406.3	421.7	433.3	437.4	411.2	410.9	402.6	398.9
6. Oil Seeds	740.6	747.5	731.6	738.5	735.8	735.0	734.8	817.2	817.4	858.6	936.7
7. Plantation Crops	377.4	387.6	387.6	390.2	390.2	392.6	395.3	392.7	384.7	377.6	380.9
8. Non-Food Crops	630.9	638.8	627.7	633.3	631.4	631.6	635.2	689.0	686.7	713.3	768.8
All Groups	488.7	492.8	493.1	489.2	498.2	505.7	509.6	512.6	511.6	516.0	533.9

Source: Directorate of Economics and Statistics, Trivandrum.

## APPENDIX 3.6

*Wholesale Price Index of Agricultural Commodities—Kerala 1973-82 (Base 1952-53=100)*

Group	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Food Grains	233	297	319	319	319	319	319	319	319	319
2. Molasses	280	282	416	423	368	289	384	629	606	414
3. Condiments and Spices	161	222	218	318	309	324	378	403	442	446
4. Fruits and Vegetables	306	402	385	380	497	564	518	589	728	742
5. Food Crops	235	302	317	332	349	360	364	388	417	414
6. Oil Seeds	466	617	479	525	606	677	648	822	819	781
7. Plantation Crops	154	215	247	236	310	308	306	331	358	387
8. Non-food Crops	372	496	409	438	516	565	545	673	680	662
All Groups	285	373	350	371	410	435	430	492	513	505

Source: Directorate of Economics and Statistics, Trivandrum.

APPENDIX 3.1  
Average Retail Prices of Essential Commodities for 1982

Name of Commodity (1)	Unit (2)	Prices at the end of											
		January (3)	February (4)	March (5)	April (6)	May (7)	June (8)	July (9)	August (10)	September (11)	October (12)	November (13)	December (14)
1. Rice (O.M.)	Kg.	3.13	3.14	3.13	3.12	3.13	3.15	3.12	3.23	3.11	3.28	3.47	3.69
2. Greengram	"	4.89	4.92	4.91	5.00	5.18	5.25	5.21	5.23	4.92	4.62	4.44	4.52
3. Blackgram	"	4.06	4.02	4.02	4.03	4.20	4.69	4.74	5.46	5.60	5.13	4.71	4.54
4. Redgram	"	4.26	4.06	4.07	3.94	3.98	3.98	4.03	4.16	4.12	4.03	3.80	3.82
5. Dhall	"	6.37	6.14	6.04	5.96	5.98	6.01	6.25	6.57	6.73	6.95	7.04	7.07
6. Coconut Oil	"	13.32	13.21	12.55	12.60	13.80	15.82	15.71	16.37	16.37	18.36	20.24	20.45
7. Groundnut Oil	"	15.20	15.07	14.96	14.46	14.42	15.43	15.08	15.16	15.27	15.41	15.58	15.83
8. Refined Oil (Postman)	"	24.19	24.57	24.33	23.92	23.65	23.91	24.41	24.52	24.55	24.45	24.19	23.94
9. Gingelly Oil	"	16.48	16.18	16.33	16.74	16.86	16.62	16.19	16.33	16.13	16.05	15.94	16.36
10. Tapioca (Raw)	"	0.77	0.81	0.86	0.86	0.88	0.86	0.87	0.91	0.97	1.02	0.96	1.02
11. Chenai	"	1.03	1.02	1.15	1.26	1.61	1.66	1.55	1.42	1.35	1.28	1.31	1.34
12. Banana (Green)	"	2.58	2.62	2.86	2.52	3.35	3.32	3.42	3.67	3.28	3.26	3.09	2.86
13. Milk (Cow's)	Ltr.	3.17	3.34	3.34	3.40	3.46	3.46	3.46	3.46	3.46	3.46	3.41	3.42
14. Egg (Hen's)	Doz.	6.04	5.78	5.86	5.34	5.82	6.33	6.52	6.27	6.08	6.04	6.70	6.47
15. Mutton	Kg.	19.90	19.70	19.70	19.75	19.70	19.70	19.70	20.20	20.20	20.20	20.40	20.40
16. Potato	"	2.22	2.00	1.71	1.75	1.91	2.45	2.30	2.09	2.12	2.38	2.45	2.27
17. Corriander	"	8.86	8.15	7.73	7.68	7.64	7.71	8.06	8.08	8.03	8.00	8.02	8.03
18. Chillies	"	17.20	13.30	11.70	11.38	11.43	12.70	13.07	13.80	13.40	13.55	13.45	12.80
19. Onion	"	1.89	1.57	1.64	2.18	3.05	3.92	3.01	2.06	2.67	3.09	2.64	1.71
20. Tamarind	"	7.80	7.85	8.10	8.15	8.20	8.35	8.40	8.40	8.70	8.90	9.00	9.05
21. Tea (Brooke Bond)	"	24.09	24.07	24.07	24.12	24.23	24.27	24.61	25.26	25.71	26.10	26.62	26.73
22. Coffee Powder (Brooke Bond F.B.)	"	20.16	20.16	20.16	20.16	20.16	20.16	20.26	20.78	20.86	21.05	21.05	21.05
23. Sugar (O.M.)	"	6.20	5.82	5.61	5.68	6.04	5.53	5.60	4.79	4.49	4.31	4.34	4.28
24. Coconut (without husk)	100 Nos.	124.00	123.80	118.50	118.00	123.00	132.75	193.75	138.00	137.25	151.75	164.30	163.61

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
25. Tobacco	Kg.	11.50	11.40	11.35	10.95	11.20	11.90	11.45	11.45	11.25	11.25	11.25	12.18
26. Firewood (Local Split)	Qtl.	41.40	41.40	41.40	41.90	43.00	43.40	44.40	45.20	44.40	44.70	45.00	45.00
27. Mundu (Mull)	Each	13.09	13.38	13.44	13.46	13.51	13.59	13.66	13.70	13.70	13.70	13.69	14.00
28. Mundu (Kora)	"	9.41	9.47	9.63	9.56	9.53	9.61	9.80	9.81	9.83	9.83	10.03	10.47
29. Paper (24 sheets)	"	2.37	2.37	2.37	2.37	2.37	2.45	2.45	2.45	2.45	2.45	2.45	2.49
30. Washing Soda	Kg.	3.80	3.80	3.76	3.78	3.82	3.77	3.77	3.77	3.80	3.80	3.80	3.84
31. Washing Soap Sunlight Bar	Each	2.32	2.33	2.32	2.32	2.32	2.32	2.33	2.34	2.36	2.39	2.41	2.41
32. Toilet Soap Lux	Cake	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.10	2.10
33. Razor Blade	5 Nos.	0.94	1.08	1.13	1.50	1.50	1.50	1.50	1.50	1.53	1.53	1.59	1.60
34. Toothpaste Colgate 50 gms.	Each	3.49	3.62	3.84	3.66	3.66	3.66	3.69	3.66	3.63	3.63	3.61	3.56
35. Anacin	2 tabs.	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.33v	0.33v
36. Electric Bulb Osram 40W	Each	4.43	4.47	4.48	4.48	4.50	4.51	4.51	4.51	4.51	4.51	4.51	4.51
37. Aluminium Cooking Pot	Kg.	40.45	40.15	40.94	41.24	41.24	41.40	42.20	42.34	42.34	42.60	42.60	42.10
38. Cement (Ordinary OM)	Bag.	*36.31	*36.99	69.16	70.24	69.83	68.15	67.17	65.00	65.38	67.22	69.84	N.A.
39. Baby Food (Amul)	Kg.	33.97	35.76	35.84	35.84	35.85	35.83	35.83	35.83	35.83	35.83	35.75	35.77
40. Torch Battery (Eveready 950)	Each	2.51	2.57	2.57	2.61	2.61	2.61	2.62	2.69	2.67	2.69	2.69	2.67

\*Controlled price  
N.A. Not available  
V Variety change

## APPENDIX 3.8

Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial Workers--Kerala--1982

(Base 1970=100)

Centre	Cost of Living Index											
	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Trivandrum	234	235	236	238	240	243	245	247	248	248	251	254
2. Quilon	242	242	241	242	244	248	251	254	256	256	260	262
3. Punalur	229	230	231	231	233	236	239	241	242	244	248	251
4. Alleppey	234	235	235	235	237	240	243	246	247	247	250	253
5. Kottayam	238	239	238	240	242	245	246	248	249	249	251	254
6. Mundakayam	233	234	233	233	234	237	238	240	240	242	246	249
7. Munnar	241	239	237	237	238	241	242	242	243	245	248	249
8. Ernakulam	229	229	229	229	231	234	236	239	240	241	244	246
9. Chalakudy	235	236	236	238	240	242	244	246	246	248	251	254
10. Trichur	239	238	239	240	241	244	246	248	249	250	254	256
11. Palghat	233	234	234	234	235	238	240	243	243	244	246	248
12. Malappuram	230	230	229	231	233	235	238	241	243	245	248	251
13. Kozhikode	235	234	234	236	238	241	244	247	248	249	252	253
14. Meppady	241	242	241	243	243	246	249	252	252	254	256	258
15. Cannanore	231	231	230	232	233	237	239	241	242	242	246	247

Source: Directorate of Economics and Statistics, Trivandrum

## APPENDIX 3.9

*Availability of Food in the State*

Particulars	Unit	1976	1977	1978	1979	1980	1981	1982 (Provisional)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Population of the State as on 1st April	Lakh	239.8	241.5	246.1	249.9	253.8	254.0	258.8
2. Production of Rice in the State	Lakh tonnes	13.29	12.54	12.95	12.72	13.0	12.72	13.40
3. * Availability of Rice for Consumption from Production within the State	,,	11.96	11.29	11.66	11.45	11.70	11.45	12.06
4. **Import of Rice on State Account	,,	9.02	15.03	16.20	5.32	16.20	15.75	12.05
5. Import of Wheat on State Account	,,	3.89	2.07	1.20	0.33	1.02	0.48	0.88
6. Production of Raw Tapioca	,,	53.90	51.26	51.14	40.44	40.89	40.61	40.41
7. † Availability of Tapioca for Consumption	,,	40.43	38.45	38.36	30.33	30.67	30.46	30.31
8. Availability of Tapioca for Consumption in Rice Equivalent	,,	18.21	17.32	17.28	13.66	13.82	13.72	13.65

\* Ten per cent of production is set apart for seed, food and wastage and the rest alone is accounted for consumption.

\*\* Firm data are not available on the import of rice into the State by private trade. Hence availability through this source is not included.

† Twenty five per cent of production is set apart for industrial uses such as sago and starch manufacturing and animal and poultry feed and the rest alone is accounted for as available for consumption.

2.22 tonne of raw tapioca is considered as equivalent to 1 tonne of rice in calorie value.

## APPENDIX 3.10

*Procurement of Paddy*

(In tonnes)

Year	Paddy Procured
(1)	(2)
1974-75	59597.9
1975-76	69196.1
1976-77	35348.0
1977-78	20973.8
1978-79	2507.2
1979-80	716.1
1980-81	419.6
1981-82	306.6

Source: Directorate of Civil Supplies, Trivandrum

## APPENDIX 4.1

## Farm Commodity Prices—Kerala

(Rs. )

Month	Paddy per Quintal		Tapioca per Quintal		Coconut per 100 nos.		Pepper per Quintal		Ginger per Quintal	
	1981	1982	1981	1982	1981	1982	1981	1982	1981	1982
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
January	149.09	176.37	39.23	51.48	143.76	113.42	1081.27	1068.39	689.95	694.17
February	164.11	175.54	38.32	52.72	143.14	113.45	1068.01	1061.38	672.23	823.04
March	172.79	179.54	39.15	54.93	134.45	111.64	1048.27	1079.94	696.15	1056.58
April	177.47	180.78	41.36	54.74	137.15	112.22	1172.15	1134.13	805.88	1215.52
May	185.33	179.54	42.68	53.87	131.98	114.51	1251.48	1095.66	765.27	1166.38
June	187.81	182.43	42.14	53.44	124.67	125.25	1239.99	1189.91	735.31	1196.90
July	190.84	183.40	42.09	56.77	118.78	125.26	1238.42	1278.17	720.65	1345.31
August	196.63	180.92	42.70	59.63	119.28	128.37	1280.63	1268.24	754.33	1410.34
September	191.80	178.85	42.72	61.50	118.24	128.27	1273.10	1272.74	747.37	1443.49
October	183.54	181.19	45.28	61.46	114.34	137.75	1281.01	1247.86	729.56	1427.92
November	181.19	..	47.25	..	111.54	..	1297.92	..	702.40	..
December	176.78	..	50.36	..	111.71	..	1218.11	..	718.91	..
Average	179.78	179.86	42.77	56.05	125.75	121.02	1204.20	1169.64	728.17	1177.97

## Farm Commodity Prices—Kerala (Contd.)

Month	Cashew per Quintal		Sugarcane per Tonne		Arecanut per 100 Nos.		Banana per 100 Nos.	
	1981	1982	1981	1982	1981	1982	1981	1982
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
January	704.00	715.00	175.00	190.00	6.94	6.51	34.12	39.41
February	739.10	770.32	175.00	188.67	7.56	6.89	35.55	39.03
March	732.08	749.61	165.00	198.00	8.09	7.52	35.97	38.33
April	771.25	651.36	165.00	180.00	8.80	8.47	38.41	40.13
May	773.76	578.87	200.00	NA	11.70	9.68	42.93	45.61
June	777.92	609.37	200.00	200.00	11.73	11.50	43.18	52.05
July	750.00	642.50	200.00	..	8.59	12.13	44.44	54.45
August	750.00	620.00	200.00	..	7.93	10.43	46.37	53.10
September	770.00	620.00	200.00	..	7.33	8.50	45.94	48.41
October	770.00	620.00	200.00	..	7.03	7.19	42.48	45.58
November	770.00	..	185.00	..	6.92	..	41.63	..
December	770.00	..	185.00	..	6.71	..	39.99	..
Average	756.51	657.70	187.50	191.33	8.28	8.88	40.92	45.61

Source: Directorate of Economics and Statistics, Trivandrum.

APPENDIX 4.2  
Monthly Rainfall

(in m.m.)

Stations	1982											
	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	0.0	0.0	16.1	82.3	284.7	428.6	151.8	107.2	17.1	164.8	191.0	23.3
Quilon	0.0	*	68.4	72.2	190.1	472.1	237.6	217.7	35.7	136.6	165.6	24.3
Alleppey	0.0	3.8	15.0	30.9	155.5	609.5	447.5	443.7	53.7	99.9	177.3	15.5
Kottayam	0.0	0.6	43.9	41.4	240.8	821.5	447.8	341.9	66.1	230.8	125.6	11.8
Peermade	0.0	..	0.0	0.0	185.0	994.0	701.0	500.0	177.0	114.0	..	0.0
Cochin	0.0	0.0	28.2	149.5	121.6	824.3	741.6	559.0	64.8	89.0	123.9	9.4
Trichur	0.0	..	0.0	0.0	159.3	868.6	631.0	511.6	87.2	338.3	..	0.0
Palghat	0.0	0.0	0.0	35.6	217.0	425.3	430.4	326.8	103.3	80.8	86.8	1.4
Nilambur	0.0	..	0.0	0.0	94.7	341.1	546.2	274.7	60.0	24.8	136.3	0.0
Kozhikode	0.0	0.0	3.6	12.9	186.4	737.5	637.8	757.5	111.6	229.4	116.1	0.0
Wynad (Vythiri)	0.0	..	11.2	84.2	168.0	921.2	1130.4	774.3	193.9	101.4	91.8	0.0
Cannanore	0.0	0.0	0.0	0.0	46.9	823.5	629.8	695.8	77.8	49.4	129.9	0.0

\* Rainfall Not Available

Source: Meteorological Centre, Trivandrum

## APPENDIX 4.3

## District-wise Area and Production of Rice in Kerala

District	Area in Hectare						Production of Rice in Tonne					
	1980-81			1981-82			1980-81			1981-82		
	Autumn	Winter	Summer	Autumn	Winter	Summer	Autumn	Winter	Summer	Autumn	Winter	Summer
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	15361	16115	1107	14800	14868	1107	22685	22352	949	20707	22897	1246
Quilon	24142	25090	823	24540	25087	779	39743	41863	583	39102	43371	903
Alleppey	33019	25372	24075	34047	26231	28328	56167	36741	51950	53748	44917	74499
Kottayam	13485	10799	7664	14435	12704	7289	23301	19324	15853	28138	21180	15285
Idukki	3862	5100	299	3514	5138	305	5848	9353	302	6114	9682	312
Ernakulana	43174	39719	19607	40102	41379	19403	59764	57161	27676	57138	62974	28883
Trichur	40584	49168	20562	41794	51570	22147	49477	62382	35712	47193	74310	34637
Palghat	89762	89550	4322	90044	86815	4018	190593	176176	7013	203506	175043	6528
Malappuram	38603	36012	5407	37516	35830	5628	48128	50547	8813	44860	52248	8082
Kozhikode	9826	28461	7164	10133	27574	7186	8372	35549	10223	9216	38721	10780
Cannanore	37425	28746	7294	36220	28877	7510	49670	37052	10640	47254	43811	12582
State	349243	354132	98324	347145	356073	103700	553748	548500	169714	556976	589154	193737

Source: Directorate of Economics and Statistics, Trivandrum.

4/723/MC.

## APPENDIX 4.4

District-wise Area and production of HYV of Rice in Kerala 1980-81 and 1981-82

District	Area in Hectare						Production in Tonne					
	Autumn		Winter		Summer		Autumn		Winter		Summer	
	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	1694	1087	789	300	459	751	2668	1758	1344	526	401	851
Quilon	12356	11428	1163	1189	94	174	24678	22512	1847	1732	117	201
Alleppey	16062	17108	5007	3578	20674	16828	31685	33469	10235	8915	46147	48147
Kottayam	11558	11723	9799	10137	4565	4126	21112	24054	17176	17445	9788	8417
Idukki	2580	3126	1889	1231	86	297	3824	5395	2429	2431	88	304
Ernakulam	13119	16711	4081	2275	5047	3896	20917	25686	6182	3834	7220	6274
Trichur	7301	6569	7779	10140	9906	10708	10882	7671	11177	19351	19322	19616
Palghat	62185	58069	56115	34860	2687	1921	152034	148357	116564	69960	4864	2496
Malappuram	2065	6972	1496	3959	1845	3025	3821	10281	2535	6622	3469	4885
Kozhikode	1773	1331	2172	1626	4358	3899	1788	1233	2625	2623	7832	5852
Cannanore	5543	4817	2101	4284	1377	2158	8661	7570	3124	8124	2505	3888
State	136236	138941	92391	73579	51098	47183	282070	288486	175238	141563	101753	100940

Source: Directorate of Economics and Statistics, Trivandrum.

## APPENDIX 4.5

Consumption of Fertilizers in Kerala

(in Tonnes)

Year	Nutrients			
	Nitrogen	Phosphorus	Potash	Total
(1)	(2)	(3)	(4)	(5)
1971-72	31257	15670	18044	64971
1972-73	31484	22314	20470	74268
1973-74	31691	22609	24546	78846
1974-75	32143	17187	18032	67362
1975-76	31654	14374	16643	62671
1976-77	33553	15696	20157	69406
1977-78	36995	19167	25394	81556
1978-79	45689	23382	39766	99837
1979-80	46341	25402	33872	105615
1980-81	41697	23402	32432	97531
1981-82	40612	23214	30935	94761

Source: Directorate of Agriculture, Kerala.



## APPENDIX 4.6

*Production, Import and Consumption of Rubber—India*

(Tonnes)

Item	1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)
<b>Production</b>			
Natural Rubber	148470	153100	152870
Synthetic Rubber	29524	25293	28490
<b>Import</b>			
Natural Rubber	32200	9250	41280
Synthetic Rubber	17661	15806	23358
<b>Consumption</b>			
Natural Rubber	165245	173630	188420
Synthetic Rubber	41488	45200	46445
Reclaimed Rubber	25660	26850	28160
Total Consumption	232393	245680	263025

Source: Rubber Board, Kottayam.

## APPENDIX 4.7

*Distribution of Coffee Plantation—1979-80*

State	Holdings of 20 ha. and below		Estates above 20 ha.	
	No. of Units	Area (ha)	No. of Units	Area (ha)
(1)	(2)	(3)	(4)	(5)
Kerala	52119	40481	120	7083
India	75417	134334	987	65358

Source: Coffee Board, Bangalore.

## APPENDIX 4.8

*Disposal of cases relating to Tenancy and Kudikidappu*

	Tenancy		Kudikidappu	
	As on 30-11-1981	As on 30-11-1982	As on 30-11-1981	As on 30-11-1982
(1)	(2)	(3)	(4)	(5)
1. Total Number of Applications Filed	3675875	3742869	444650	448394
2. Disposal of Cases				
(i) Allowed	2478168	2495090	271956	274700
(ii) Rejected	760710	766626	149021	150693
(iii) Other Disposals	426691	469699	19379	19412
(iv) Total	3665569	3731415	440356	444805
3. Balance of Applications to be Disposed of	10306	11454	4294	3589
4. Number of Certificate of Purchase Issued	2454948	2480618	258227	261979

Source: Land Board, Kerala.

## APPENDIX 4.9

*Distribution of Surplus Land*

Item	Unit	As on 31-11-1981	As on 31-12-1982
(1)	(2)	(3)	(4)
1. Total ceiling returns filed	No.	75722	77691
2. Total ceiling returns decided	"	72457	74979
3. Balance to be decided	"	3265	2712
4. Area ordered to be surrendered	Acres	160463	168721
5. Area reduced on orders of High Court	"	41148	44118
6. Net extent of land ordered for surrender	"	119316	124604
7. Extent of land taken over	"	83356	86177
8. Area reconveyed on orders of High Court	"	3674	4396
9. Net extent taken over	"	79681	81782
10. Balance extent to be taken over:			
(1) Covered by stay against taking possession	"	24562	24415
(2) Not to be taken over by gift, dispute, vested forest etc.	"	12878	14466
(3) Extent available for taking over	"	2194	3941
11. Surplus land distributed	"	52664	54422
12. Balance extent taken over pending distribution			
(1) Covered by stay against assignment	"	3072	2897
(2) Not distributed due to gift, vested forest etc.	"	5762	6090
(3) Reserved for public purposes	"	15677	16363
(4) Available for distribution	"	2507	2069

Source: Land Board, Kerala.

## APPENDIX 4.10

*Animal Husbandry and Livestock Development activities carried out in Kerala by the Animal Husbandry Department*

Item	Unit	Period	
		1980-81	1981-82
(1)	(2)	(3)	(4)
1. Artificial Inseminations carried out by the Department—			
(i) In I.C.D.P. Areas	Lakhs	2.26	2.34
(ii) In Other Areas	„	3.84	3.09
Total	„	6.10	5.43
2. Animals Slaughtered	„	6.32*	6.32*
3. Meat Production	Tonnes	16606*	16923*
4. Production of Poultry feeds in units owned by the Department	„	2637	3348
5. Production of Eggs	Millions	962	980*
6. Veterinary Institutions—	No.		
(i) Veterinary Polyclinics	„	25	30
(ii) Veterinary Hospitals	„	399	394
(iii) Veterinary Dispensaries	„	135	135
(iv) Veterinary Sub Centres	„	..	..
(v) Other Institutions	„	514	633
7. Animals Treated	Lakhs	30.10	32.57
8. Vaccinations and Innoculations Conducted—			
(i) On Livestock	„	10.86	9.26
(ii) On Poultry	„	33.57	31.51
9. Estimated Milk Production	'000 tonnes	908	950**

Source: Directorate of Animal Husbandry.

\* Relates to Calendar Year 1980 and 1981.

\*\* Provisional.

## APPENDIX 4. 11

*Composition of Marine Fish Landings in Kerala during 1977 to 1981 (Quantity in Tonnes)*

Species	1977		1978		1979		1980		1981		Average for 1977-1981	
	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Elasmobranchs	5796	1.7	9302	2.5	6954	2.1	6803	2.4	4871	1.8	6735	2.0
2. Catfishes	7947	2.3	9125	2.4	11328	3.4	13936	5.0	9565	3.5	10350	3.2
3. Chirocentrus	547	0.2	1298	0.4	1125	0.3	1002	0.4	973	0.4	989	0.3
4. (a) Oil Sardine	117356	34.0	119937	32.1	116834	35.4	69667	25.0	146986	53.5	114156	35.6
(b) Other Sardines	20804	6.0	11713	3.1	15914	4.8	11017	4.0	7652	2.8	13420	4.2
5. Anchoviella	10105	2.9	21203	5.7	6552	2.0	7772	2.8	4293	1.5	9985	3.1
6. Thrissoeles and Other Clupeoids	2160	0.6	2871	0.8	2463	0.7	2815	1.0	1578	0.6	2377	0.8
7. Perches	14121	4.1	24989	6.7	20239	6.1	17814	6.4	8549	3.1	17141	5.4
8. Red Mulletts	240	0.1	171	0.0	127	0.0	1	..	33	..	114	-
9. Sciaenids	11965	3.5	13045	3.5	5237	1.6	6164	2.2	3145	1.2	7911	2.5
10. Ribbon Fish	7440	2.2	24207	6.5	25718	7.9	12937	4.6	7066	2.6	15474	4.8
11. Caranx	16484	4.8	7197	1.9	12635	3.8	4760	1.7	5050	1.8	9225	2.8
12. Leiognathus	7708	2.2	3040	0.8	3597	1.1	4147	1.5	2826	1.0	4264	1.3
13. Lactarius	823	0.2	1533	0.5	253	0.1	861	0.3	879	0.3	870	0.3
14. Pomfrets	3712	1.1	1614	0.4	1737	0.5	907	0.3	1373	0.5	1869	0.6
15. Mackerel	19968	5.8	25917	6.9	18585	5.7	18474	6.6	16200	5.9	19829	6.2
16. Seer Fish	3250	0.9	3354	0.9	6275	1.9	3763	1.3	3330	1.2	3994	1.3
17. Tunnies	6705	1.9	6548	1.8	15391	4.7	10611	3.8	5509	2.0	8953	2.8
18. Soles	5778	1.7	7276	1.9	4487	1.3	4394	1.6	5034	1.8	5394	1.7
19.(a) Penaeid Prawns	40150	11.6	45034	12.1	29522	8.9	52633	18.9	22268	8.1	37921	11.8
(b) Non-penaeid Prawns	174	0.1	394	0.1	75	0.0	1742	0.6	160	0.1	509	0.2
(c) Lobster	40	..	38	0.0	26	0.0	18	..	50	..	34	-
(d) Other Crustaceans	4621	1.3	2176	0.6	7643	2.3	7286	2.6	2998	1.1	4945	1.6
20. Cephalopods	4973	1.5	6516	1.7	2976	0.9	4244	1.5	2376	0.9	4217	1.3
21. Miscellaneous	32170	9.3	24841	6.7	14816	4.5	15775	5.5	11631	4.3	19785	6.2
Total	345037	100	373339	100	330509	100	279543	100	274395	100	320461	100

## APPENDIX 4.12

*District-wise and Species-wise Distribution of Marine Fish Landings in Kerala in 1981 (Provisional) (Qty. in Tonnes)*

Species	Trivandrum	Quilon	Alleppey	Ernakulam	Trichur	Malappuram	Kozhikode	Cannanore	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Elasmobranchs	283	1164	17	757	500	40	778	1281	4820
2. Eels	..	2	..	1	..	..	..	..	3
3. Cat fishes	358	4326	35	1010	352	493	1219	1647	9440
4. Chirocentrus	292	46	..	20	117	1	30	468	974
5 (a) Oil Sardine	702	4897	34566	16398	15310	7551	22276	45948	147648
(b) Lesser Sardines	2472	4114	509	381	..	..	96	43	7615
(c) Hilsa Ilisha	8	..	..	..	..	..	..	..	8
(d) Other Hilsa	14	..	1	..	..	..	..	..	15
(e) Anchoviella	2516	833	16	395	241	65	240	..	4306
(f) Thrissocles	13	14	59	181	218	57	54	39	635
(g) Other Clupeoids	89	83	60	103	..	115	458	33	941
6. (a) Harpodon Nehereus	..	..	—	..	..	..	..	..	..
(b) Saurida and Saurus	184	5115	2	346	15	..	23	..	5685
7. Hemirhamphus and Belone	445	98	..	19	..	..	1	..	563
8. Flying fish	16	..	..	..	..	..	..	..	16
9. Perches	1346	3867	45	2787	4	..	20	404	8433
10. Red mullets	29	3	..	1	..	..	..	..	33
11. Polynemids	2	..	..	1	3	..	..	41	47
12. Sciaenids	119	1404	19	551	541	28	97	389	3148
13. Ribbon fish	6595	41	1	55	85	1	219	53	7050
14.(a) Caranx	1606	95	..	28	3	..	3	..	1735
(b) Chorinemus	282	5	..	25	1	4	..	..	317
(c) Trachynotus	1659	149	37	565	226	32	22	305	2995
(d) Other Carangids									
(e) Coryphaena									
(f) Elacate									
15.(a) Leiognathus	624	830	750	172	24	33	64	313	2810
(b) Gazza	..	..	..	..	..	..	..	..	..
16. Lactarius	43	484	42	55	2	18	187	64	895
17. Pomfrets	60	32	4	225	106	..	65	881	1373
18. Mackerel	1906	1921	535	4609	269	164	3199	3694	16297
19. Seerfish	677	251	2	167	152	65	104	1813	3331
20. Tunnies	3846	288	..	1244	63	..	67	..	5511
21. Sphyraena	582	122	39	59	2	..	..	..	804
22. Mugil	1	7	..	116	..	..	6	4	134
23. Bregmaceros	..	..	..	..	..	..	..	..	..
24. Soles	114	2065	192	471	35	732	1062	373	5044
25.(a) Penaeid prawns	25	9544	956	3277	1333	736	2153	4261	22285
(b) Non Penaeid prawns	71	89	..	..	..	..	..	..	160
(c) Lobsters	36	1987	35	468	52	48	47	179	3052
(d) Crabs									
(e) Squilla									
26. Cephalopods	1443	805	5	119	..	..	..	..	2372
27. Miscellaneous	694	2115	200	366	105	52	690	106	4328
Total	29152	46796	38127	35032	19759	10235	33180	62539	274820

Source: Directorate of Fisheries.

## APPENDIX 4.13

*Fishermen Co-operatives in Kerala*

Category	1978-79			1979-80			1980-81		
	No. of Societies	Member-ship	Paid up Share Capital (Rs. lakhs)	No. of Societies	Member-ship	Paid up Share Capital (Rs. lakhs)	No. of Societies	Member-ship	Paid up Share Capital (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Credit Societies	96	19876	8.88	91	17981	3.76	89	17651	3.70
MUCS	492	43434	17.39	451	39821	16.76	368	33413	15.66
Regional Marketing Societies (Including Marketing Federation)	17	1957	38.05	16	2832	49.37	15	3488	49.53
Total	605	65267	64.32	558	60634	69.89	472	54552	68.89

Source : Directorate of Fisheries.

## APPENDIX 4.14

*Beach Prices of Selected Marine Fishes in Kerala*

Species	1980-81	1981-82
	Price in the Beach (Rs./kg.)	Price in the Beach (Rs./kg.)
(1)	(2)	(3)
1. Elasmobranchs	1.25	1.32
2. Catfishes	1.31	1.33
3. Chirocentrus	1.33	1.38
4. (a) Oil Sardine	0.93	0.94
(b) Other Sardines	0.98	1.00
5. Sciaenids	1.12	1.14
6. Carangids	0.76	0.81
7. Leiognathus	0.70	0.75
8. Lactarius	2.21	2.24
9. Pomfrets	3.74	3.86
10. Mackerel	1.69	1.75
11. Seer fish	4.76	5.06
12. Tunnies	3.14	3.27
13. Soles	0.77	0.81
14. Cephalopods	2.60	2.75
15. Miscellaneous	1.20	1.25
16. (a) Prawn (Naran)	11.70	12.59
(b) " (Poovalan)		
(c) " (Karikkadi)		
(d) " (Kazhanthan)		

Source : Directorate of Fisheries.

## APPENDIX 4.15

*Distribution of Marine Fishing Villages and Fishermen Population in Kerala-1980*

Item	Districts								Total
	Trivan- dram	Quilon	Alleppey	Ernakulam	Trichur	Malap- puram	Kozhikode	Canna- nore	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. No. of Fishing Villages	54	29	39	20	22	18	57	65	304
2. No. of Landing Centres	54	33	34	13	19	12	24	33	222
3. No. of Fishermen—									
households	26519	12381	15648	7648	8295	8321	11884	9148	99894
4. Fishermen population—									
Male	43848	27615	33026	16931	19655	19888	26320	23326	210609
Female	41737	25662	33105	17098	20421	22366	26157	23307	209853
Children	46502	25836	31257	15030	20356	28650	26957	24822	219410
Total	132087	79113	97388	49059	60432	70904	79434	71455	639872
5. Educational Status—									
Parimary	23566	19056	19170	14633	13845	5435	13154	10964	119823
Secondary	2009	3611	9410	3174	1099	345	1133	2733	23514
Above Secondary	900	1258	1181	415	397	44	364	758	5317
Total	26475	23925	29761	18222	15341	5824	14651	14455	148654
6. No. of Fishermen engaged in actual fishing—									
Full time	20882	12115	19365	7768	10186	12944	16005	12705	111970
Part time	5115	875	904	1862	720	425	435	681	11017
Occasional	3116	982	872	586	700	577	609	672	8114
Total	29113	13972	21141	10216	11606	13946	17049	14058	131101

Source: Marine Fisheries Information Service No. 30, August 1981.

## APPENDIX 4.16

*District-wise Figures of Marine Fishing Crafts and Gears in Kerala-1980*

Item	Districts								Total
	Trivan- drum	Quilon	Allepey	Erna- kulam	Trichur	Malap- puram	Kozhikode	Canna- nore	
(1)	(2)	(3)	(4)	(6)	(6)	(7)	(8)	(9)	(10)
<b>I. No. of Fishing Crafts—</b>									
(a) Mechanised Trawlers	13	319	32	133	27	12	90	119	745
Gill netters	18	45	8	22	34	43	34	11	215
Purse-seiners	..	..	..	..	..	..	..	9	9
Others	..	..	1	4	..	2	..	7	14
Total	31	364	41	159	61	57	124	146	983
(b) Non-Mechanised Plank built boats	911	760	1442	265	112	597	287	2	4376
Dug-out canoes	1282	680	735	1198	1411	1416	1907	1786	10415
Catamarans	10302	1178	..	..	..	..	..	..	11480
Total	12495	2618	2177	1463	1523	2013	2194	1788	26271
<b>No. of fishing Gears—</b>									
Trawl nets	22	593	59	229	45	30	209	267	1454
Purses-cincs	..	..	..	..	..	..	..	9	9
Drift/gillnets	10,236	3764	1635	1620	1787	545	1770	1950	23307
Boat seines	2648	774	1385	435	683	1038	1587	1229	9779
Hooks and lines	2133	157	130	37	60	101	163	168	2949
Shore seines	1150	657	431	197	85	125	137	144	2926
Traps	2195	44	..	..	..	..	..	..	2239
Scoop nets	1209	33	..	74	..	43	5	7	1371
Others	500	69	425	740	307	..	602	118	2761

Source: Marine Fisheries Information Service No. 30, August, 1981.



## APPENDIX 4.17

## District-wise Distribution of Fishermen Population in Kerala (1981-82)

(Estimated)

District	Marine				Inland			Total Fishermen Population	
	Adults		Children	Total	Adults		Children		Total
	Male	Female			Male	Female			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Trivandrum	40076	38761	55464	134301	299	304	386	989	135290
2. Quilon	23988	22106	29398	75492	8867	8147	11024	28038	103530
3. Alleppey	27971	27353	35175	90499	17134	16245	18513	51892	142391
4. Kottayam	..	..	..	..	6792	6486	7205	20483	20483
5. Idukki	..	..	..	..	..	..	..	..	..
6. Ernakulam	18788	18376	21223	58387	18115	17386	17389	52890	111277
7. Trichur	17223	17553	21484	56260	5404	5210	5655	16269	72529
8. Palghat	..	..	..	..	101	117	215	433	433
9. Malappuram	18613	19080	22360	60053	1095	1083	1261	3439	63492
10. Calicut	24738	23991	30513	79242	3297	3144	4087	10528	89770
11. Wynad	..	..	..	..	..	..	..	..	..
12. Cannanore	24426	23777	28413	76616	505	442	367	1314	77930
13. Pathanamthitta	..	..	..	..	..	..	..	..	..
State	195823	190997	244030	630850	61609	58564	66102	186275	817125

## APPENDIX 4.18

## Division-wise Area of Forest in Kerala

(Area in Hectares)

Division	As on 31-3-1981
1. Trivandrum	57058
2. Thenmala	56762
3. Punalur	28005
4. Konni	33166
5. Ranni	105746
6. Kottayam	73074
7. Malayattur	68049
8. Munnar	89737
9. Chalakudy	85641
10. Trichur	52259
11. Thekkady Wild Life Division	77700
12. Nenmara	48407
13. Nilambur	32469
14. Palghat	37317
15. Kozhikode	42062
16. Wynad	45782
17. Kozhikode (Special Division)	359
<b>Total</b>	<b>933593</b>

Source: Chief Conservator of Forests.

## APPENDIX 5.1

*Details of Investment on Power Development**(Rs. in lakhs.)*

Period	Generation	Transmission and Distribution	Rural Electrification	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)
Upto 1-4-1957	2337.31	109.95	45.47	..	2492.73
II Plan	883.82	798.68	258.18	..	1949.68
III Plan	4750.01	1084.47	235.00	..	6069.48
Annual Plan (1966-67 to 1968-69)	2857.07	1280.64	49.98	..	4187.69
IV Plan	6676.33	4667.20	332.17	168.02	11843.72
V Plan (1974-75 to 1977-78)	6162.26	4757.31	1135.56	..	12055.13
1978-79	964.74	2243.34	86.73	..	3294.81
1979-80 (Audited figures)	753.38	3372.98	148.79	..	4275.15
1980-81 Actuals Subject to Audit	1490.57	5458.90	213.86	..	7163.33
1981-82 (Approximate)	2220.04	4794.74	202.40	..	7217.18
Total till March 1982	29095.53	28568.21	2708.14	168.02	60539.90
1982-83 (Anticipated)	2260.00	3267.00	173.00	..	5700.00

## APPENDIX 5.2

*Growth of Kerala Power system at a Glance*

Particulars	Position as on	
	31-3-1982	31-3-1983 (anticipated)
(1)	(2)	(3)
1. Installed Capacity—MW	1011.5	1011.5
2. Maximum Demand—MW		
(a) System	921	845
(b) Internal	802	806
3. Generation per annum—MU	5539.30	4490
4. Import per annum—MU	45.67	65.00
5. Export per annum—MU	1774.89	641.76
6. Energy Sales per annum—MU	4768.74	3752
7. Energy Losses as a Percentage of Energy Available for Sale	14.06	17.20
8. Per Capita Consumption	115.0	115.9
9. 220 KV Lines— Ct. Km.	887.3	887.3
10. 110 KV Lines —Ct. km.	1558.93	1812.4
11. 66 KV Lines —Ct. Km.	2147.06	2510
12. 11 KV Lines —Ct. Km.	15218.8	16048.8
13. L.T. Lines Ct. Km.	63610	68510
14. Step up Transformer Capacity—MVA	1148.0	1148.0
15. No. of EHT Sub-Stations	95	101
16. Step down Transformer Capacity—MVA	2964.5	3095.5
17. Distribution Transformers:		
(a) Nos.	12499	12939
(b) Capacity—KVA	1193583	1254318
18. No. of Village Electrified/ No. of Villages	1268/1268	
19. No. of Consumers	1836039	1992982
20. Connected Load —MW	2306.95	2490.00
21. No. of Street Lights	416856	446856
22. No. of Irrigation Pumps	99483	116422
23. Total Revenue per annum (Rs. lakhs)	12451	10964

## APPENDIX 5.3

*Consumption of Power and Revenue Collected (Internal) - 1981-82*

(Provisional figures)

Category	No. of Consumers as on 31-3-1982	Connected Load (M.W.) as on 31-3-1982	Energy Consumed		Revenue Collected	
			Million KWH	Percentage to Total	(Provisional Rs. Lakhs)	Percentage to Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Domestic Lights, Fans, Heat and Small Power	1369329	848.98	566.28	18.91	2081.10	29.38
2. Commercial Lights, Fans, Heat and Small Power	319793	201.47	253.26	8.46	1312.20	18.53
3. Industrial (Low and Medium Voltage)	39972	459.68	241.60	8.07	555.67	7.85
4. Industrial (High and Extra High Voltage)	598	414.11	1669.61	55.77	2352.59	33.22
5. Irrigation	104422	289.89	104.82	3.50	157.20	2.21
6. Public Lighting	1398	15.18	57.89	1.93	409.21	5.78
7. Water Works and Sewage Pumping	522	12.98	41.58	1.40	85.28	1.21
8. Bulk Supply to Licences	5	64.96	58.80	1.96	128.42	1.82
<b>Total</b>	<b>1836039</b>	<b>2306.95</b>	<b>2993.84</b>	<b>100.00</b>	<b>7081.67</b>	<b>100.00</b>

## APPENDIX 5.4

*Total quantity of power sold and Receipts by the Sale of Electricity*

(Provisional)

Particulars of Receipts	During 1981-82		
	Power Sold in MKWH	Income Rs. Lakhs	Average Revenue per KWH (Paise)
(1)	(2)	(3)	(4)
1. Domestic Lights, Fans and Small Power	566.286	2081.10	36.75
2. Commercial Lights, Fans and Small Power	253.265	1312.20	51.81
3. Industrial:			
(a) Low and Medium Voltage	241.598	555.67	23.00
(b) High Voltage and EHV	1669.613	2352.59	14.09
4. Public Lighting	57.885	409.21	70.69
5. Irrigation—Agricultural Watering	104.815	157.20	15.00
6. Public Water Works and Sewage Pumping	41.583	85.28	20.51
7. Bulk Supply (Licences)	58.799	128.42	21.84
8. Total Sale to Neighbouring States	1774.894	4969.69	28.00
<b>Total</b>	<b>4768.74</b>	<b>12051.36</b>	<b>25.26</b>

## APPENDIX 5.5

*Energy Consumed and Revenue Realised (1981—82)*

Category	No. of Consumers	Percentage to Total	Energy Consumed		Revenue Collected	
			MKwh	Percentage to Total	Rs. Lakhs	Percentage to Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Industrial High Voltage and EHT and Low and Medium Voltage	40570	2.21	1911.21	63.84	2908.26	41.06
2. Domestic Lights and Fans, Heat and Small Power	1369329	74.71	566.29	18.93	2081.10	29.39
3. Commercial Lights and Fans, Heat and Small Power	319793	17.45	253.26	8.45	1312.20	18.53
4. Others (Excluding Export)	106347	5.63	263.08	8.78	780.11	11.01
Total	1836039	100.00	2993.84	100.00	7081.67	100.00

## APPENDIX 5.6

*Financial Position of the Kerala State Electricity Board*

(Rs. in lakhs)

Item	1980-81 Actual Subject to Audit	1981-82 Latest Estimate	1982-83 Estimate
(1)	(2)	(3)	(4)
1. Gross Revenue	10,686.54	12,451.00	10,964.00
2. Revenue (Expenditure)	7,070.64	8,011.00	9,104.00
3. Net Operating Surplus	3,615.90	4,440.00	1,860.00
4. Total Capital Investment of the Board	53,359.32	60,576.32	66,276.32
5. Total Loans Outstanding	35,693.70	37,577.01	42,390.01
6. Loans Raised During the Year	2,757.77	2,737.31	4,813.00
7. Loans Repaid During the Year	469.43	854.00	1,125.00
8. Total Interest Payable	2,369.42	2,942.00	3,183.00
9. Amount Available as Surplus During the Year After Meeting the Interest Payable to Government	1,246.48	1,498.00	(—)1,323.00

## APPENDIX 5.7

*Average Rates of Electricity Supply and Electricity Duty for Different Categories of Consumers. Average Rate in P/KWH*

Category of Consumers	KWh/m	Rate	Duty	Total	Enforced with effect fr
(1)	(2)	(3)	(4)	(5)	(6)
<b>1. Domestic</b>					
(a) Lights and Fans	(30)	43.33	2.67	46.00	15-8-1982
(b) Heat and Small Power	(100)	32.50	2.75	35.25	"
(c) Combined Load	(130)	33.8	3.00	36.8	"
<b>2. Commercial</b>					
(a) Lights and Fans	(200)	70	6.5	76.50	"
(b) Heat and Small Power	(400)	67.50	6.5	74.00	"
(c) Combined Load	(600)	67.50	6.5	74.00	"
3. Agricultural Purposes (10 HP 15% L. F.)	(817)	13.22	1.2	14.42	"
4. Small Scale Industries (LT.) (10 Kw 20% L.F.)	(1460)	20.42	1.7	22.12	"
5. Medium Industries (50 Kw 30% L. F.) (L. T.)	(14600)	18.712	1.7	20.412	"
6. Large Industry I (HT) (250 kw 40% L. F.)	(73000)	24.1	7.23	31.33	1-9-1982
7. Large Industry II (HT) (1000 kw 50% L.F.)	(365000)	21.05	6.31	27.36	"
8. Heavy Industry (5000 kw 60% L. F.) 66 KV 110 K. V.)	(2, 190,000)	21.56	6.47	28.03	"
	"	18.05	5.42	23.47	"
<b>9. Public lighting</b>					
(a) 40 W Metal Filament Lamp (12 hrs)	(14.4 units)	90.28	..	90.28	"
(b) 2 x 40 Fluorescent Lamps (12 hrs)	(28.8 units)	121.53	..	121.53	"
<b>10. Supplies to Consumers Outside the States</b>					
(a) Interboard Supplies		Tamil Nadu	35 ps.		
(b) Supplies to Other Governments		Karnataka	28 ps.		
(c) Others					

## APPENDIX 6.1.

## District-wise Distribution of Working Factories and Employment in Kerala for the Year ending 31-12-1981 (Provisional Figures)

Sl. No.	Industry	Trivandrum		Quilon		Alleppey		Kottayam		Idukki		Ernakulam		Trichur		Palghat		Malappuram		Kozhikode		Cannanore		Total	
		A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	Oil	18	125	30	148	48	423	13	67	8	37	47	376	93	601	10	64	10	60	47	318	26	167	350	2386
2	Tea	5	118	6	154	..	..	7	106	73	3901	1	84	1	106	3	125	1	24	12	703	6	183	115	5504
3	Cashew	15	7339	228	108724	5	6732	..	..	..	..	2	369	5	2528	..	..	..	..	2	738	3	1120	260	127550
4	Cotton Textiles	17	1621	6	1496	5	609	3	512	..	..	19	2281	17	3565	19	1593	3	536	68	2341	632	11542	789	26096
5	Coir	4	68	9	225	200	3003	2	32	..	..	22	382	8	56	..	..	8	98	43	708	10	97	306	4689
6	Plywood, splints and Veneers	14	254	51	1407	22	656	24	987	5	112	40	999	35	703	76	1555	18	244	103	1663	56	2621	444	11201
7	Saw Mill	21	126	97	538	43	194	69	366	1	2	232	1488	131	758	130	613	62	348	131	1440	107	1078	1024	6971
8	Printing and Publishing	43	1514	37	338	31	214	81	941	4	28	113	1788	71	869	37	537	14	79	77	1204	53	364	561	7876
9	Rubber and Rubber products	36	1041	51	694	21	326	213	2636	20	230	79	1581	54	1248	24	148	23	175	61	425	60	327	642	8831
10	Chemicals and Chemical products	12	1100	10	281	26	591	18	535	2	25	54	7193	18	340	19	319	6	723	25	475	12	121	202	11703
11	Matches	14	163	28	444	12	155	3	41	..	..	11	231	26	265	12	206	5	42	26	322	7	89	144	1958
12	Soap	1	5	3	45	3	26	2	5	..	..	11	1176	3	64	..	..	..	..	16	565	4	75	43	1961
13	Tiles	3	102	45	1746	5	113	17	141	..	..	36	651	139	4163	12	593	7	437	35	3331	10	814	309	12031
14	General Engineering	64	2093	106	2541	50	880	80	655	6	130	388	9867	130	1250	162	2753	18	191	159	1807	105	1066	1268	23233
15	Automobiles	32	2908	21	2268	23	924	50	546	3	29	96	1312	42	810	44	325	20	117	113	1240	101	729	545	11206
	Others	62	1192	173	3555	131	2962	115	1156	3	240	413	11042	228	4527	394	3198	45	501	317	6607	223	2417	2104	37337
	Total	301	19769	901	124624	625	17808	697	8726	125	4734	1564	40820	1001	21853	942	11909	240	3575	1235	23837	1415	22810	9106	300515

Source : Directorate of Economics and Statistics

A—Number of factories B—Employment

Sl. No.	Name of Company	Paid up Capital		Share of Government & Public Sector financing institutions in the paid up capital as on 31-3-1982	Total Loans outstanding & interest accrued as on 31-3-1982	Net Fixed Assets as on 31-3-1982	Loans availed in 1981-82		Value of Production	
		1980-81	1981-82				From Government of India	From Others	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1	Cochin Refineries Ltd.	700.00	700.00	..	6601.28	1978.36	Nil	1900.00	55823.38	76500.00
2	Fertilisers and Chemicals, Travancore Ltd.	12546.20	12546.20	12477.20	8794.24	7355.61	Nil	Nil	13443.51	14641.82
3	Indian Rare Earths Ltd.									
(a)	Rare Earths Division, Udyogamandal	N.A.	N.A.	N.A.	N.A.	176.56	1464.33*	Nil	N.A.	591.16
(b)	Minerals Division, Chavara	98.50	98.50	98.50	61.98	535.68	Nil	Nil	N.A.	274.38
4	Modern Food Industries (India) Ltd., Cochin **	No separate share capital		..	Nil	..	Nil	Nil	257.50	315.81
5	Hindustan Latex Ltd.	130.00	130.00	130.00	151.55	99.91	Nil	Nil	234.00	637.00
6	Indian Telephone Industries Ltd. Palghat	No separate share capital		..	..	35.25	..	..	N.A.	238.44
7	Hindustan Insecticides Ltd., Udyogamandal	No separate Share Capital		..	22.23	1089.19	Nil	Nil	865.80	778.00
8	H.M.T. Ltd., Kalamassery	..	1176.30	..	472.04	588.38	..	..	629.13	1633.84
9	Instrumentation Ltd., Palghat	142.43	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	674.00	N.A.

\* For the Company as a whole.

\*\* Formerly Modern Bakeries (India) Limited.



## 6.2

## Main Features

(Rs. in lakhs)

Value of Raw Materials consumed in 1981-82	Sales in		Export in		Net Profit (+)/Net Loss (-)		Persons Employed (Nos.)	
	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
74522.22	56064.65	76803.24	Nil	Nil	(+) 202.63	(+) 619.85	464	471
8766.00	12267.92	13131.00	Nil	Nil	(+) 160.37	(-) 1098.97	7384	7777
176.40	510.55	559.66	285.30	317.66			509	490
37.12	420.07	514.09	237.24	248.98	(+) 85.20*	(+) 157.30*	496	985
191.46	257.23	315.81	Nil	Nil	(+) 29.53	(+) 44.78	160	160
134.38	238.38	636.90	28.50	N.A.	(-) 44.98	(+) 31.22	708	750
135.49	78.31	112.78	Nil	Nil	(+) 14.25	(+) 13.32	159	157
287.63	517.50	836.24	Nil	Nil	(-) 135.65	(-) 187.96	1092	884
680.50	664.20	1664.13	108.28	287.98	(-) 143.55	(+) 215.91	2816	2993
N.A.	1020.00	N.A.	0.02	N.A.	(+) 203.70	N.A.	388	N.A.

## Government of India Companies—Production and Capacity Utilisation

Sl.No.	Name of Company	Name of Product	Unit	Licenced Capacity		Installed Capacity		Production		Capacity Utilisation in Percentage	
				1980-81	1981-82	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1	Cochin Refineries Ltd.	(i) Liquefied Petroleum Gas	MT.	3300000	3300000	707000	707000	969318	1041213	140.7	150.0
		(ii) Naphtha	"			267000	267000	277713	336805	104.0	126.1
		(iii) Motor Spirit—83	"			184000	184000	140140	147764	76.2	80.3
		(iv) Motor Spirit—90	"			..	..	..	..	..	..
		(v) Aviation Turbine Fuel	"			..	..	15055	17982	..	..
		(vi) Superior Kerosene	"			73500	73500	322713	345494	439.1	470.0
		(vii) High Speed Diesel	"			707000	707000	969318	1041213	140.7	150.0
		(viii) Light Diesel Oil	"			..	..	25427	18554	..	..
		(ix) Asphalt	"			..	..	5519	19286	..	..
		(x) Furnace Oil	"			1110000	1110000	942911	197820	84.9	17.8
		(xi) Bitumen	"			..	..	..	..	..	..
		(xii) Low Sulphur Heavy Stock	"			..	..	76652	76570	..	..
2	Fertilisers and Chemicals Travancore Ltd.	(i) Ammonium Sulphate	MT.	165000	165880	198000	198080	104964	86824	53.0	43.6
		(ii) Ammonium Phosphate 20 : 20	"	49020	49020	49500	49500	36471	43812	73.7	88.5
		(iii) Ammonium Phosphate 16 : 20	"	132000	132000	99000	99000	61455	55363	62.1	55.9
		(iv) Ammonium Chloride	"	23870	23870	24750	24750	10180	7241	41.1	29.3
		(v) Super Phosphate	"	44000	44500	44000	44500	10901	18893	24.8	42.5
		(vi) Cryolite	"	1650	1650	1650	1650	119	63	7.2	3.8
		(vii) Sulphur Di-oxide	"	8500	8500	8250	8250	37	..	0.5	..
		(viii) Oleum	"	..	..	6600	..	1392	1097	21.1	..
		(ix) Urea	"	330000	330000	330000	330000	246000	258300	74.5	78.3
		(x) Complex Fertilisers	"	485000	485000	485000	485000	198414	151869	40.9	31.3
		(xi) Ammonia	"	316800	316800	310200	310200	189816	189812	61.2	61.2
		(xii) Sulphuric Acid	"	608800	608800	608800	608800	375405	320541	61.7	52.7
		(xiii) Phosphoric Acid	"	148000	148000	148000	148000	86849	67818	58.7	45.8

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
3	Indian Rare Earths Ltd. (a) Rare Earths Division, Udyogamandal									
	(i) Rare Earths Chloride	M.T.	4300	4320	5000	5000	3509	3862	70.2	77.2
	(ii) Trisodium Phosphate	"	5000	5600	5600	5600	4931	4784	77.3	85.4
	(iii) Thorium Hydroxide	"	650	650	820	820	1210	1235	147.6	150.6
	(iv) Rare Earths Fluoride	"	..	..	180	180	162	126	90.0	70.0
	(v) Rare Earths Oxide	"	..	..	60	60	47	51	78.9	85.0
	(vi) Cerium Oxide	"	..	..	12	12	20	17	166.7	141.7
(b)	Minerals Division, Chavara		200000	200000	144000	144000	104022	88938	72.2	61.8
	(i) Ilmenite	"	600	600	240	240	191	159	54.6	66.3
	(ii) Monazite	"	10000	10000	7460	7460	5125	4684	68.7	62.8
	(iii) Zircon	"	9000	9000	7200	7200	9701	5209	51.4	72.3
	(iv) Rutile	"	4000	4000	1600	1600	614	1208	38.4	75.5
	(v) Sillimanite	"	..	..	123	123	181.18	194.80	147.3	158.4
4	Modern Food Industries (India) Ltd., Edappally, Cochin	Lakh Nos. of 400 grams	Not appli- cable	Not appli- cable	..	..	..	..	..	..
	(i) Modern Bread	"	"	"	47.66	47.66	8.04	7.72	16.9	16.2
	(ii) Modern Bun	Lakh No. of 50 grams	..	..	..	..	..	..	..	..
5	Indian Telephone Industries Ltd., Palghat	Nos. of lines	17500	17500	10000	25000	9680	23175	96.8	92.7
	Electronic Switching Instruments									
6	Hindustan Latex Ltd.	Million pieces	288	288	288	288	105.23	265.72	36.5	92.0
	Contraceptive Condoms									
	Meteorological Balloons (875 grams)	Nos.	..	..	25000— 30000	25000— 30000	..	..	..	..
7	Hindustan Insecticides Ltd. Udyogamandal	Tonnes	1344	1344	1344	1344	1001	956	77.5	71.1
	(i) Technical DDT	"	2688	2688	2688	2688	2001	2747	74.4	102.2
	(ii) Formulated DDT	"	3000	3000	3000	3000	1541	1868	51.4	62.3
	(iii) Technical BHC	"	3000	3000	3000	3000	2601	2727	86.7	90.9
	(iv) Formulated BHC	"	1910	1910	1910	1910	266	58	13.9	3.0
	(v) Endosulphan 35 EC	Kilo Litres	1200	1200	877	680	263	511	30.0	75.2
8	HMT Limited, Kalamassery	Nos.	..	..	105	115	33	84	31.4	73.0
	(i) Machine Tools and Accessories									
	(ii) Printing Machines and Accessories Nos.									
9	Instrumentation Limited, Palghat	Lakh Rupees	..	NA	550	NA	674	NA	..	..
	(i) Control Valves									
	(ii) Safety Relief Valves									
	(iii) Pressure Reducing Valves									
	(iv) Miscellaneous (Spares, Actuators and allied items)									

## APPENDIX 6.4

*Progress of the Working of Kerala Financial Corporation at a Glance*

(Rs. in lakhs)

Year	Loans sanctioned (Cumulative)	Loans Disbursed (Cumulative)	Loans Out- standing (Cumulative)	Profit before Taxation	Profit after Taxation
(1)	(2)	(3)	(4)	(5)	(6)
1975-76	3977.47	2250.45	1931.50	55.85	31.85
1976-77	4629.58	2787.75	2435.33	57.81	36.91
1977-78	5479.62	3309.24	2963.54	62.52	44.33
1978-79	6027.59	3938.60	3583.52	62.79	41.79
1979-80	7024.92	4679.12	4256.79	1.76	1.76
1980-81	8020.02	5521.18	5023.60	70.10	40.40
1981-82	8421.13	6106.32	5644.58	158.58	105.04

## APPENDIX 6.5

*Kerala Financial Corporation: Summary of Loans Operations as on 31-3-1982*

(Rs. in lakhs)

Particulars	During the year 1981-82						Since Inception upto 31-3-1982					
	Small Industries		Others		Total		Small Industries		Others		Total	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Applications pending as on 1-4-1981	683	1867.99	45	489.00	728	2356.99	..	..	..	..	..	..
2. Applications received during 1981-82	588	1554.08	27	411.65	615	1965.73	6813	12284.25	464	4115.37	7277	16399.62
3. Applications sanctioned	250	536.62	1	15.75	251	552.37	4943	7072.17	351	2704.89	5294	9777.05
4. Applications rejected or withdrawn	122	257.60	..	..	122	257.60	976	2520.19	37	439.47	1013	3009.66
5. Applications sanctioned but cancelled or reduced rates	52	110.40	2	40.86	54	151.26	563	1037.03	35	343.93	593	1355.93
6. Applications sanctioned effectively (Net)	198	426.22	(—)1	(—)25.11	197	401.11	4330	6035.17	315	2355.93	4395	8421.13
7. Amount disbursed	275	510.45	7	74.69	282	585.14	3741	4252.05	294	1854.27	4335	6103.32
8. Applications pending	..	..	..	..	..	..	911	2653.52	59	853.35	970	3514.83

## APPENDIX 6.6

*District-wise Sanction and Disbursement of Loans and Advances by the Kerala Financial Corporation as on 31-3-1982*

(Rs. in lakhs)

District	Effective Sanction		Disbursement	
	No.	Amount	No.	Amount
<b>Backward region</b>				
1. Trivandrum	595	1084.90	543	933.71
2. Alleppey	374	894.42	303	604.18
3. Trichur	401	915.34	327	535.77
4. Malappuram	210	360.56	184	273.65
5. Cannanore	331	558.59	303	387.40
<b>Total</b>	<b>1911</b>	<b>3813.81</b>	<b>1660</b>	<b>2734.71</b>
<b>Other Region</b>				
1. Quilon	649	905.08	579	663.51
2. Kottayam	349	750.88	308	565.89
3. Idukki	57	88.66	52	73.85
4. Ernakulam	1080	1967.18	861	1378.02
5. Palghat	167	297.42	141	206.38
6. Calicut	474	590.78	427	478.98
7. Wynad	3	3.79	2	0.44
8. Union Territory	1	0.15	..	0.22
9. Mahe and Other areas	4	3.38	5	4.32
<b>Total</b>	<b>2784</b>	<b>4607.32</b>	<b>2375</b>	<b>3371.61</b>
<b>Grand Total</b>	<b>4695</b>	<b>8421.13</b>	<b>4035</b>	<b>6106.32</b>

## APPENDIX 6.7

*Industry-wise Classification of Loan Sanctioned and Disbursed by the Kerala Financial Corporation as on 31-3-1982*

Type of Industry	Amount Sanctioned	Percentage of total loans sanctioned	Amount disbursed	Percentage of total loans disbursed
(1)	(2)	(3)	(4)	(5)
1. Stone Quarrying	57.53	0.95	29.86	0.70
2. Food Manufacturing	876.85	14.46	592.66	13.94
3. Beverage Units	24.74	0.41	18.75	0.44
4. Tobacco Manufacturing	10.57	0.17	0.42	0.01
5. Textiles	261.00	4.30	151.12	3.55
6. Footwear and Other Wearing Apparels	41.14	0.68	34.98	0.82
7. Wood, Cork, Except furniture	109.52	1.81	97.44	2.29
8. Furniture & Fixtures	304.18	5.01	191.06	4.49
9. Paper Products	124.30	2.05	108.38	2.56
10. Printing, Publishing & Allied Industries	290.40	4.79	188.77	4.44
11. Leather Goods	0.30	0.00	2.11	0.05
12. Rubber Products	682.47	11.25	512.18	12.05
13. Chemical and Chemical Products	639.18	10.54	397.89	9.36
14. Petroleum Products	7.34	0.12	6.27	0.15
15. Non-metallic Mineral Products	205.11	3.38	155.55	3.66
16. Basic Metal Industries	161.69	2.66	105.95	2.49
17. Metallic Products	427.33	7.04	268.92	6.32
18. Machinery Except Electrical Machinery	240.20	3.96	187.40	4.41
19. Electrical Machinery	141.33	2.33	74.46	1.75
20. Transport Equipments	108.27	1.79	84.68	1.99
21. Motion Pictures	69.73	1.15	57.75	1.36
22. Hotels	..	..	..	..
23. Fishing Boat	256.68	4.23	225.64	5.31
24. Transports	380.07	6.27	316.54	7.44
25. Miscellaneous Industries	646.24	10.65	443.27	10.42
26. Industrial Estate	..	..	..	..
Total	6065.17	100.00	4252.05	100.00

## APPENDIX 6.8

*Khadi and Village Industries—Production, Sales, Employment and wages during 1980-81 and 1981-82*

Industry	Production		Sales		Employment						Total Wages	
	Value (Rs. lakhs)		Value (Rs. lakhs)		Full-time		Par-time		Casual		(Rs. lakhs)	
	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
A. Khadi	100.30	158.81	109.80	250.11	11576	14437	..	..	..	..	73.42	109.34
B. Village Industries												
1. Village Oil	174.97	500.58	186.86	489.12	501	575	1214	861	1715	1253	13.46	15.19
2. Village Pottery	120.51	162.56	133.97	164.50	5791	7374	209	314	..	..	88.41	114.65
3. Fibre and screw pine	428.60	456.14	472.94	483.45	52398	52961	986	894	..	..	296.16	297.79
4. Blacksmithy and Carpentry	84.75	99.80	77.48	95.12	797	1669	57	118	..	..	26.71	31.27
5. Handmade Paper Industry	3.32	8.41	3.51	6.22	210	246	..	..	..	..	1.48	2.61
6. Gurkandasari	124.53	142.09	131.97	146.15	1118	1272	660	783	419	399	19.62	22.19
7. Palmgur	63.86	66.74	70.38	71.08	270	300	14210	16020	750	740	42.80	46.40
8. Bee keeping	187.43	249.71	187.43	249.71	2750	3000	11611	11737	..	..	187.43	249.71
9. Village Leather	87.53	112.85	92.78	121.07	847	894	534	547	N.A.	..	30.34	34.35
10. Lime Manufacturing	82.49	105.59	87.28	127.25	1884	1897	1085	620	..	..	38.77	47.02
11. Non Edible Oil and Soap	17.27	20.14	16.44	21.16	57	52	572	48	376	88	1.61	1.34
12. Cottage Match	95.87	127.50	98.30	128.21	1434	2480	2929	4169	..	..	20.65	28.44
13. Cane and Bamboo	30.09	35.72	31.94	40.97	1897	2436	1680	1967	..	..	17.51	22.69
14. Collection of Forest Plants (Medicinal Plants)	1.56	0.57	0.88	0.55	5	3	344	97	N.A.	..	0.25	0.17
15. Processing of Cereals and Pulses	87.92	440.12	102.34	466.07	2267	1752	138	1680	..	..	23.80	28.71
16. Fruit Processing and Preservation	3.81	6.11	3.70	7.17	20	27	12	20	5	23	0.47	0.08
17. Poly Vastra Industry	..	4.98	..	1.32	..	367	..	..	..	..	..	2.61
Total	1694.81	2697.82	1808.00	2824.23	83822	91742	36241	39880	3265	2503	882.89	1055.74

## APPENDIX 7.1

*Length of Roads Maintained by Public Works Department as on 1-4-1982 (Category-wise)*

Name of Division	State Highways	Major District Roads	Other District Roads	Village Roads	Total
(1)	(2)	(3)	(4)	(5)	(6)
Trivandrum	117	281	1018	91	1507
Quilon	269	696	1483	15	2463
Alleppey	195	244	937	--	1376
Kottayam	258	651	898	37	1844
Idukki	371	483	450	..	1304
Muvattupuzha	146	503	478	..	1127
Ernakulam	40	310	322	..	672
Trichur	199	502	663	55	1419
Palghat	142	596	281	295	1314
Manjeri	161	399	310	314	1184
Calicut	62	334	210	426	1032
Wynad	35	322	51	124	532
Cannanore	84	322	804	684	1894
<b>Total</b>	<b>2079</b>	<b>5643</b>	<b>7905</b>	<b>2041</b>	<b>17668</b>

## APPENDIX 7.2

*Type-wise Length of Roads under Panchayats as on 31-3-1982 (Kms.)*

District	Black Topped and Metalled	Gravelled	Earthen	Total
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	120	1032	5237	6389
2. Quilon	60	3315	11165	14540
3. Alleppey	77	3295	3256	6628
4. Kottayam	25	592	4291	4908
5. Idukki	44	288	3738	4070
6. Ernakulam	71	1117	2776	3964
7. Trichur	145	2955	4212	7312
8. Palghat	83	488	2977	3548
9. Malappuram	34	477	3414	3925
10. Kozhikode	13	933	2922	3868
11. Wynad	74	221	1402	1697
12. Cannanore	78	1546	5535	7159
<b>Total</b>	<b>824</b>	<b>16259</b>	<b>50925</b>	<b>68008</b>



## APPENDIX 7.3

*Growth of Motor Vehicles in Kerala During the last Six Years*

Type of Vehicle	As on 31-3-1977	As on 31-3-1978	As on 31-3-1979	As on 31-3-1980	As on 31-3-1981	As on 31-3-1982
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Goods Vehicles						
(i) Four Wheelers and above	17165	17755	17907	20128	22896	25626
(ii) 3 Wheelers Including Tempos	327	441	620	993	1786	2038
2. Buses						
(i) Stage Carriage	8711	7993	8120	8705	9159	9765
(ii) Contract Carriage/Omnibus	528	615	703	842	1041	1265
3. Cars and Station Wagon						
(i) Car	41875	45350	49882	54381	56802	60412
(ii) Station Wagon	153	206	222	196	236	302
(iii) Taxi Car	12256	13933	15195	17780	18960	21569
(iv) Jeep	6308	7082	6919	7023	7834	9030
4. 3 Wheelers						
(i) Autorickshaw	4492	4585	5666	7397	9640	12727
(ii) Motorised Cycle/Rickshaw	41	58	49	38	42	44
5. Two Wheelers						
(i) Motorised Cycle	49	60	53	58	70	74
(ii) Scooter/Motor Cycle	32031	38123	43633	50943	59531	70498
6. Tractor Tractor Articulated	1722	1772	1794	1864	1853	1946
7. Tractor	1728	1722	1626	1892	2146	2266
8. Tiller	340	366	425	469	530	793
9. Trailer	237	224	242	260	285	328
10. Others	1289	1408	1539	1735	1786	2050
<b>Total</b>	<b>129252</b>	<b>141693</b>	<b>154595</b>	<b>174704</b>	<b>194597</b>	<b>220733</b>
Percentage Increase Over the Previous Year	..	9.62	9.11	13.01	11.39	13.43

## APPENDIX 7.4

Number of Motor Vehicles Having Valid Registration in Kerala as on 31-3-1982

District	Goods Vehicles		Buses		Cars and Station Wagons			3 Wheelers	
	4 Wheelers and above	3 Wheelers including Tempos	Stage Carriage	Contract Carriage/Omnibus	Car	Station Wagon	Taxi-Car	Jeep	Autorickshaw
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Trivandrum	2520	712	191	266	13341	86	2393	1860	1465
2. Quilon	3335	27	458	83	7099	39	2339	757	399
3. Alleppey	1333	199	356	103	5720	2	2108	294	628
4. Kottayam	2724	163	562	154	3366	..	2059	566	937
5. Idukki	1228	5	168	44	1088	4	823	599	97
6. Ernakulam	3957	570	906	201	10622	31	2078	760	2226
7. Trichur	2766	30	1019	123	4577	21	3312	288	1199
8. Palghat	1303	9	462	74	3508	10	920	355	620
9. Malappuram	1208	8	557	29	2487	..	2012	425	458
10. Kozhikode	2603	110	726	52	4897	32	1385	1783	1424
11. Wynad	488	..	17	10	148	—	362	550	109
12. Cannanore	2155	205	809	125	3551	75	1778	760	3236
K. S. R. T. C.	6	..	3534	1	8	2	..	33	..
<b>Total</b>	<b>25626</b>	<b>2038</b>	<b>9765</b>	<b>1265</b>	<b>60412</b>	<b>302</b>	<b>21569</b>	<b>9030</b>	<b>12727</b>

District	3 Wheelers	2 Wheelers		Tractor-Trailer Articulated	Tractor	Tiller	Trailer	Others	Total
	Motorised Cycle Rickshaw	Motorised Cycle	Scooter/Motor Cycle						
(1)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1. Trivandrum	..	..	14814	150	113	44	26	489	38470
2. Quilon	9	8	5884	131	39	27	58	93	20779
3. Alleppey	1	..	6108	18	180	24	21	42	17182
4. Kottayam	..	4	3827	88	162	188	24	64	14688
5. Idukki	1	9	924	159	68	25	16	121	5919
6. Ernakulam	19	9	14767	371	126	95	78	460	37276
7. Trichur	11	35	8042	294	163	64	12	181	22187
8. Palghat	1	8	5355	293	1086	217	24	55	14900
9. Malappuram	..	1	1305	36	229	28	37	149	8969
10. Kozhikode	1	..	5472	82	97	41	30	171	18906
11. Wynad	..	..	382	231	..	22	..	..	2319
12. Cannanore	1	..	3614	93	3	18	2	187	16612
K. S. R. T. C.	..	..	4	..	..	..	..	38	3626
<b>Total</b>	<b>44</b>	<b>74</b>	<b>70498</b>	<b>1946</b>	<b>2266</b>	<b>793</b>	<b>328</b>	<b>2050</b>	<b>220738</b>

## APPENDIX 7.5

Number of Vehicles Newly Registered in the State During the Year 1961-62

District	Goods Vehicles		Buses		Cars and Station Wagons			3 Wheelers	
	4 Wheelers and above	3 Wheelers including Tempos	Stage Carriages	Contract Carriage/Omnibus	Car	Station Wagon	Taxi	Jeep	Autorickshaw
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Trivandrum	170	20	2	57	641	11	31	107	367
2. Quilon	381	16	22	11	397	3	82	75	47
3. Alleppey	108	103	23	24	153	..	16	..	135
4. Kottayam	214	12	41	31	145	..	13	92	173
5. Idukki	66	1	20	..	35	..	37	55	11
6. Ernakulam	201	148	41	26	286	8	7	64	593
7. Trichur	246	6	56	24	169	14	19	27	183
8. Palghat	82	..	18	4	37	..	..	..	58
9. Malappuram	133	7	50	4	77	..	3	62	90
10. Kozhikode	239	28	61	15	194	20	63	51	190
11. Wynad	50	1	..	..	8	3	23	24	21
12. Cannanore	96	23	92	8	32	22	..	18	607
K. S. R. T. C.	..	..	144	..	..	..	..	..	..
Total	1986	365	570	204	2174	81	294	575	2475

District	3 Wheelers	2 Wheelers		Tractor Trailer	Tractor	Tiller	Trailer	Others	Total
	Motorised Cycle Rickshaws	Motorised Cycle	Scooter/Motor Cycle	Articulated					
(1)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1. Trivandrum	..	..	1562	7	6	3	..	21	3005
2. Quilon	..	1	798	4	3	6	3	9	1858
3. Alleppey	1	..	692	..	7	18	1	..	1281
4. Kottayam	..	2	632	6	18	120	9	19	1527
5. Idukki	..	..	97	4	3	4	4	..	337
6. Ernakulam	..	..	1778	8	29	46	12	37	3284
7. Trichur	3	..	1248	16	40	9	4	1	2064
8. Palghat	..	1	644	12	57	24	4	..	942
9. Malappuram	..	..	221	4	13	6	1	..	671
10. Kozhikode	..	..	1047	6	2	4	2	73	1995
11. Wynad	..	..	47	36	..	3	..	..	216
12. Cannanore	..	..	408	2	1	..	..	5	1314
K. S. R. T. C.	..	..	..	..	..	..	..	..	144
Total	4	4	9174	105	179	243	40	165	18638

## APPENDIX 7.6

Kerala State Road Transport Corporation--Operational Statistics (1981-82)

Sl. No.	Transport Unit	No. of Buses Held as on 31-3-1982	No. of Schedules as on 31-3-1982	No. of Routes as on 31-3-1982	Route Distance in kms.	Gross kms. Operated (lakhs)	Effective kms. Operated (lakhs)	Passengers Carried (lakhs)	No. of Accidents
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Neyyattinkara	106	96	214	6130	79.58	79.17	347.31	121
2	Trivandrum CI.	136	124	103	8698	120.10	119.77	175.75	240
3	Attingal	67	61	132	4230	50.73	50.61	267.05	71
4	Vizhinjam	51	46	28	1154	37.08	36.59	207.72	44
5	Trivandrum CY.	239	217	573	8227	111.32	109.47	823.92	279
6	Pappanamcode	77	70	163	1823	42.29	41.79	325.58	90
7	Nedumangad	76	69	125	3899	57.66	57.50	298.94	113
8	Quilon	153	139	174	8050	126.03	123.73	358.37	193
9	Kottarakara	99	90	209	5137	75.21	74.04	178.31	114
10	Punalur	52	47	119	4365	38.35	37.81	142.08	87
11	Pathanamthitta	46	42	123	4580	36.79	36.18	90.52	126
12	Kayamkulam	95	86	157	6246	78.02	78.02	280.73	219
13	Chengannur	77	70	160	5464	55.28	54.83	228.07	81
14	Thiruvalla	75	68	160	6158	49.11	48.67	278.96	126
15	Changanacherry	65	59	134	3678	49.00	49.00	116.60	119
16	Kottayam	108	98	178	8391	79.43	78.69	204.56	238
17	Ponkunnam	30	27	23	2515	20.52	20.53	39.80	59
18	Palai	75	68	116	5813	58.88	58.33	163.79	139
19	Alleppey	113	103	120	5100	93.21	92.49	302.31	156
20.	Sherthalai	42	38	88	2130	30.41	30.06	108.43	129
21.	Ernakulam	77	70	116	7247	65.34	65.11	105.96	80
22.	Muvattupuzha	72	65	100	4154	47.84	47.49	133.75	199
23.	Perumbavoor	66	60	83	4328	45.13	44.92	122.97	147
24.	Alwaye	79	72	135	4490	63.73	63.60	215.58	272
25.	Trichur	105	95	102	6214	99.97	99.29	210.96	333
26.	Guruvayoor	29	26	29	1717	31.20	30.93	40.18	96
27.	Chalakydy	66	60	92	2345	46.05	45.67	150.47	181
28.	Ponnani	19	17	13	2242	19.88	19.82	28.15	19
29.	Perinthalmanna	23	21	18	3405	23.91	23.44	30.27	10
30.	Palghat	72	65	51	5969	70.79	70.33	80.64	150
31.	Kozhikode	139	126	115	7649	108.39	107.75	240.14	124
32.	S. Battery	88	80	116	4116	58.19	57.17	222.17	83
33.	Cannanore	69	63	61	6115	65.43	64.76	85.11	147
34.	Payyannur	54	49	53	3548	45.37	44.59	81.28	79
35.	Kattakkada	55	50	90	2110	57.08	56.47	151.51	91
36.	Vaikom	30	27	10	764	24.31	24.08	61.16	40
	Workshops	357							
	<b>Total</b>	<b>3182</b>	<b>2564</b>	<b>3679</b>	<b>157618</b>	<b>2161.61</b>	<b>2142.88</b>	<b>6913.27</b>	<b>4810</b>

## APPENDIX 7.7

Kerala State Road Transport Corporation—Operational Ratios (1981-82)

Sl.No.	Transport Unit	Average No. of Buses Held Daily	Average kms. Run per day per Bus	Percentage of Vehicular Utilisation	Average Route Length	Average Distance Travelled by a passenger	Average Earning per passenger	Earnings per kms. of Buses operated (Paise)	Earning per Vehicle on Road per day (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Neyyattinkara	104.4	242.9	85.5	28.1	11.4	72.9	320	784
2.	Trivandrum CL	139.2	243.9	95.9	36.4	31.6	249.7	365	892
3.	Attingal	63.1	266.8	82.4	32.6	8.8	56.6	299	798
4.	Vizhinjam	49.8	253.4	79.4	30.3	8.8	54.6	309	785
5.	Trivandrum Cy.	226.6	167.2	79.1	14.4	7.5	43.3	325	544
6.	Pappanamcode	72.5	171.3	92.2	11.2	6.6	39.4	308	528
7.	Kattakkada	54.1	238.5	80.5	23.4	12.4	71.2	285	670
8.	Nedumangad	82.7	248.6	76.6	30.1	10.0	61.4	320	795
9.	Quilon	146.7	270.6	85.3	40.3	16.1	105.6	305	828
10.	Kottarakara	92.4	276.3	79.4	38.9	20.4	133.1	320	886
11.	Punalur	58.2	259.8	68.5	36.0	14.2	92.9	350	912
12.	Pathanamthitta	50.5	299.8	65.5	37.2	18.1	123.3	307	920
13.	Kayamkulam	98.9	262.9	82.1	39.5	13.7	88.2	316	836
14.	Chengannur	81.2	263.1	70.2	34.1	12.2	78.5	327	859
15.	Thiruvalla	78.7	214.5	79.0	38.5	8.6	53.2	305	653
16.	Changanacherry	71.2	252.4	74.6	42.0	20.7	132.7	315	795
17.	Kottayam	115.5	260.7	71.6	47.0	18.5	96.4	324	845
18.	Ponkunnam	30.7	278.2	65.7	118.5	23.6	164.1	313	870
19.	Vaikom	33.4	269.9	73.1	76.4	17.1	109.8	282	761
20.	Palai	81.3	264.7	74.2	50.1	17.2	114.1	320	847
21.	Alleppey	122.3	266.8	77.4	42.5	14.8	96.4	315	841
22.	Sherthalai	44.1	256.5	73.0	24.2	14.2	87.0	315	806
23.	Ernakulam	89.6	332.8	71.0	62.4	26.0	180.0	292	970
24.	Muvattupuzha	61.6	281.6	75.1	41.5	17.2	112.0	314	984
25.	Perumbavoor	67.6	255.3	71.2	52.1	15.8	109.0	297	758
26.	Alwaye	90.8	262.8	73.0	33.2	13.2	83.3	281	736
27.	Trichur	122.3	327.3	67.9	60.9	19.6	132.4	281	919
28.	Guruvayoor	37.8	347.1	64.6	59.2	35.6	277.5	361	1254
29.	Chalakydy	54.0	267.3	86.8	60.2	14.4	94.0	309	824
30.	Perinthalmanna	24.3	341.7	77.1	189.0	36.6	260.0	333	1139
31.	Ponnani	26.6	291.9	70.2	172.4	30.1	214.3	305	904
32.	Palghat	74.7	365.6	70.6	117.0	39.8	285.0	324	1184
33.	Kozhikode	151.8	295.8	65.7	67.7	20.4	135.0	301	890
34.	S. Bettery	77.2	246.5	81.4	35.6	13.3	87.4	341	839
35.	Cannanore	66.2	352.7	76.0	100.2	29.4	209.4	276	973
36.	Payyannur	52.7	302.4	76.6	66.9	22.7	155.7	284	860
	Total	2895.4	266.1	76.7	42.8	14.5	96.2	308	820

## APPENDIX 7.8

## Railway Net-work (All India)

Year	Total Route		Running Track Km.		Total Track Km.	
	Electrified	Total	Electrified	Total	Electrified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1950-51	388	53596	937	59315	1253	77609
1955-56	388	55011	937	60845	1253	78233
1960-61	748	56247	1752	63602	2259	83706
1965-66	2423	58399	4847	68375	6302	92474
1970-71	3706	59790	7447	71669	9586	98546
1973-74	4191	60234	8401	74104	10823	101028
1974-75	4397	60301	8804	74197	11286	101395
1975-76	4659	60216	9245	74255	11819	101990
1976-77	4720	60666	9373	74839	12092	102837
1977-78	4720	60693	9360	75012	12037	103325
1978-79	4722	60777	9363	75195	12070	103587
1979-80	4820	60933	9562	75450	12305	103906
1980-81	5345	61240	10474	75860	13448	104480

Source: Indian Railways Year Book 1980-81.

## APPENDIX 7.9

## Statistical Highlights—Southern Railway

Particulars	1979-80	1980-81
1. Route Kilometres		
Broad Gauge	2006.78	2006.78
Metre Gauge	4474.00	4474.00
Narrow Gauge	148.46	148.46
Total	6629.24	6629.24
2. Track Kilometres		
Broad Gauge	4256.84	4267.23
Metre Gauge	5793.43	5781.53
Narrow Gauge	154.27	154.27
Total	10204.54	10203.03
3. Average No. of Passenger Trains run per day	791	840
4. No. of Passengers Originating Whole Year (in Millions)	302.38	332.99
5. No. of Passengers Carried Whole Year (in Millions)	307.29	338.11
6. No. of Passengers Carried per Day (in Millions)	0.84	0.92
7. Passenger Kilometres (in Millions)	16135.29	18128.14
8. Total Passenger Earnings (Rs. in Crores)	67.18	78.12
9. Average Length of Passenger Journey (Kms.)	52.5	53.6
10. No. of Locomotives on line	998	976
11. No. of Goods Vehicles	30059	29434
12. No. of Stations	887	884
13. No. of Staff	135183	136348
14. Tonnes Originating (in millions)	11.77	11.81
15. Freight Tonnes Kilometres (in millions)	8189.96	8066.53
16. Total Goods Earnings (Rs. in crores)	85.14	90.65
17. Average Amount Earned per Tonne Kilometre (Ps.)	10.30	11.05
18. Average Lead of Tonne of Goods Traffic (Kms.)	342	333

## APPENDIX 7.10

## State-wise Railway Route Length (1980-81)

State	Total Route		Per 1000 Sq. Km. of Area		Per Lakh of Population	
	Length	Km.	Index	Km.	Index	
(1)	(2)	(3)	(4)	(5)	(6)	
Punjab	2139	42.47	228	12.89	144	
Gujarat	5635	28.75	154	16.57	185	
Haryana	1500	34.09	183	11.63	130	
West Bengal	3722	42.37	227	6.83	76	
Assam	2194	27.94	150	11.03	123	
Rajasthan	5614	16.40	88	16.40	184	
Bihar	5362	30.82	165	7.68	86	
Uttar Pradesh	8880	30.20	162	8.01	90	
Tamil Nadu	3895	29.96	161	8.06	90	
Madhya Pradesh	5738	12.94	69	11.00	123	
Andhra Pradesh	5709	17.01	91	8.82	99	
Maharashtra	5308	17.23	92	8.47	95	
Karnataka	3014	15.71	84	8.15	91	
Kerala	916	23.57	127	3.61	40	
Orissa	1981	12.70	68	7.53	84	
Himachal Pradesh	256	4.60	25	6.10	68	
Jammu and Kashmir	77	0.35	2	1.28	14	
Nagaland	9	0.54	3	1.13	13	
Tripura	12	1.15	6	0.60	7	
Union Territories						
Delhi	168	113.13	607	2.71	90	
Chandigarh	11	96.49	518	2.20	25	
Pondicherry	27	56.25	302	4.50	50	
Goa, Diu and Daman	79	20.72	111	7.18	80	
All India	61240	18.63	100	8.95	100	

Sources: Basic Statistics relating to Indian Economy, Vol. II, States, September, 1982.

## APPENDIX 7.11

*Air Traffic from Trivandrum and Cochin Air ports for the Years 1980-81 and 1981-82*

Sector	Originating Traffic				Sector	Terminating Traffic			
	1980-81		1981-82			1980-81		1981-82	
	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)		Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum-Bombay	64204	728.0	68443	651.9	Bombay-Trivandrum	63633	322.5	66501	678.6
Trivandrum-Madras	18873	158.0	17011	96.8	Madras-Trivandrum	20887	665.7	18287	463.9
Trivandrum-Cochin	6961	36.0	5447	45.6	Cochin-Trivandrum	8182	50.4	7205	140.6
Trivandrum-Male	6364	121.1	10352	174.9	Male-Trivandrum	5738	5.7	11080	10.5
Trivandrum-Colombo	5298	22.4	5404	2.1	Colombo-Trivandrum	5667	137.6	8747	75.7
Trivandrum-Madurai	258	1.7	..	..	Madurai-Trivandrum	220	5.0	146*	3.0*
Cochin-Coimbatore	2555	2.0	2065	1.7	Coimbatore-Cochin	3309	119.7	2380	81.0
Cochin-Bombay	62015	297.6	70263	239.0	Bombay-Cochin	60741	301.1	71427	282.4
Cochin-Bangalore	10525	12.0	19312	38.6	Bangalore-Cochin	11290	29.3	17571	161.4
Cochin-Madras	12502	32.8	11510	36.0	Madras-Cochin	13069	85.5	12747	113.6

Source: Indian Airlines

\* Relates to Dabolin Trivandrum

## APPENDIX 7.12

*The Number of New Passports Issued by the Passport Offices of Cochin and Calicut During 1981-82*

Month	No. of Fresh Applications Received			No. of Passports Issued		
	Cochin	Calicut	Total	Cochin	Calicut	Total
April 1981	10885	7627	18512	10764	6085	16849
May 1981	12600	8582	21182	12544	6720	19264
June 1981	15876	8257	24133	13007	6240	19247
July 1981	13147	7607	20754	13118	6881	19999
August 1981	11867	7693	19560	10938	6641	17579
September 1981	12004	9542	21546	10142	7500	17642
October 1981	11271	9403	20674	10706	7520	18226
November 1981	13305	9391	22696	13340	10720	24060
December 1981	14287	18605	32892	10003	5700	15703
January 1982	13000	10922	23922	10009	6540	16549
February 1982	13275	6034	19309	10267	8661	18929
March 1982	27840	7558	35398	10048	7421	17469
Total	169357	111221	280578	134886	86629	221515

Source: Passport Offices, Cochin and Calicut



## APPENDIX 7.13

*Import and Export Tonnage of Cargo handled and Revenue Collected at the Intermediate and Minor Ports of Kerala during 1981-82*

Name of Port (1)	Import (Tonnes)			Export (Tonnes)		
	Coastal (2)	Foreign (3)	Total (4)	Coastal (5)	Foreign (6)	Total (7)
<b>1. Intermediate Ports</b>						
1. Neendakara	..	..	..	..	68015	68015
2. Alleppey	..	..	..	..	..	..
3. Calicut/Beyypore	1939	91722	93661	31443	38598	70041
<b>2. Minor Ports</b>						
4. Trivandrum	..	..	..	..	..	..
5. Quilon	..	..	..	..	..	..
6. Kodungalloor	..	..	..	..	..	..
7. Ponnani	..	..	..	..	..	..
8. Badagara	..	..	..	..	..	..
9. Azhikkal	121	..	121	17572	..	17572
10. Tellicherry	..	..	..	..	..	..
11. Cannanore	..	..	..	..	..	..
12. Kasaragode	..	..	..	..	..	..
<b>Total</b>	<b>2060</b>	<b>91722</b>	<b>93782</b>	<b>49015</b>	<b>106613</b>	<b>155628</b>

Name of Port (1)	Total (Tonnes)			Revenue (Rs.) earned	
	Coastal (8)	Foreign (9)	Total (10)	1980-81 (11)	1981-82 (12)
<b>1. Intermediate Ports</b>					
1. Neendakara	..	68015	68015	1209403	1109376
2. Alleppey	..	..	..	..	..
3. Calicut/Beyypore	33382	130320	163702	267894	429866
<b>2. Minor Ports</b>					
4. Trivandrum	..	..	..	..	..
5. Quilon	..	..	..	7806	1892
6. Kodungalloor	..	..	..	..	..
7. Ponnani	..	..	..	6324	8659
8. Badagara	17693	..	17693	74940	90375
9. Azhikkal	..	..	..	5566	5840
10. Tellicherry	..	..	..	..	..
11. Cannanore	..	..	..	..	..
12. Kasaragod	..	..	..	8684	12532
<b>Total</b>	<b>51075</b>	<b>198335</b>	<b>249410</b>	<b>1580617</b>	<b>1658540</b>

Source: Director of Ports, Kerala.

## APPENDIX 7.14

*Number and Tonnage of Steamers and Sailing Vessels which called at the Intermediate and Minor Ports of Kerala during 1981-82*

Name of Port	Coastal/Foreign	Steamers		Sailing Vessels		Total No. of Vessels	Total Tonnage	
		No.	Tonnage	No.	Tonnage			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
<b>I. Intermediate Ports</b>								
1. Neendakara	Coastal	..	..	..	..	..	..	
	Foreign	6	47534	..	..	6	47534	
2. Alleppey	Coastal	..	..	..	..	..	..	
	Foreign	..	..	..	..	..	..	
3. Calicut/Beypore	Coastal	1	1478	315	51330	316	52808	
	Foreign	13	46179	30	10260	43	56439	
<b>II. Minor Ports</b>								
4. Trivandrum	Coastal	..	..	..	..	..	..	
	Foreign	..	..	..	..	..	..	
5. Quilon	Coastal	..	..	..	..	..	..	
	Foreign	..	..	..	..	..	..	
6. Kodungalloor	Coastal	..	..	..	..	..	..	
	Foreign	..	..	..	..	..	..	
7. Ponnani	Coastal	..	..	13	1092	13	1092	
	Foreign	..	..	..	..	..	..	
8. Badagara	Coastal	..	..	..	..	..	..	
	Foreign	..	..	..	..	..	..	
9. Azhikkal	Coastal	..	..	222	23411	222	23411	
	Foreign	..	..	..	..	..	..	
10. Tellicherry	Coastal	..	..	..	..	..	..	
	Foreign	..	..	..	..	..	..	
11. Cannanore	Coastal	..	..	..	..	..	..	
	Foreign	..	..	..	..	..	..	
12. Kasaragode	Coastal	..	..	1	144	1	144	
	Foreign	..	..	..	..	..	..	
Total for 1981-82		Coastal	1	1478	551	75977	552	77455
		Foreign	19	93713	30	10260	49	103973
Grand Total			20	95191	581	86237	601	181428
Total for 1980-81		Coastal	9	6693	574	69622	583	76315
		Foreign	15	62127	8	1900	23	64027
Grand Total			24	68820	582	71522	606	140342

Source: Director of Ports, Kerala

## APPENDIX 7.15

*Category-wise Analysis of Ships that Called at the Cochin Port During the year 1981-82*

Type of Vessels Entered	No.		NRT	
	1980-81	1981-82	1980-81	1981-8
(1)	(2)	(3)	(4)	(5)
1. Tankers	189	223	2190083	2411531
2. Colliers	..	..	..	..
3. Foodgrain Ships	..	6	..	46159
4. Fertilizer Sh'ps	58	47	408515	398924
5. General Cargo Ships	462	522	1771646	1998028
6. Fully Containerised Ships	65	113	433944	675816
7. RO—RO Ships	12	4	62285	9060
8. Passenger Ships	2	3	16632	19603
Total	788	918	4883105	5559121

Source: Cochin Port Trust Administration Report 1981-82.

## APPENDIX 7.16

*Tonnage of Principal Commodities of Imports into Cochin Port during the year 1981-82*

Commodity	Coastal	Foreign	Total
(1)	(2)	(3)	
1. Rice and Paddy	..	..	..
2. Other Grains Including Pulses and Flour	..	105250	105250
3. Coal	..	..	..
4. Cashewnuts	..	16135	16135
5. Machinery	13	5920	5933
6. Iron and Steel	..	19966	19966
7. Tin Plate	..	1393	1393
8. Motor Vehicles and Parts	8	170	178
9. Chemicals and Chemical Preparations	..	2854	2854
10. Oil Seeds Including Copra and Groundnuts	111	..	111
11. Drugs and Medicines	..	49	49
12. Paper, Old Newspaper and Stationery	..	44684	44684
13. Cotton Raw Waste	..	1222	1222
14. Oil man Stores, Provisions and spices	..	..	..
15. Sulphur	..	158230	158230
16. Rock Phosphate	..	223979	223979
17. Fertilizer	..	101475	101475
18. Liquid Ammonia	..	47026	47026
19. Salt	..	..	..
20. Zinc Concentrate	..	10999	10999
21. Calcined Bauxite	13166	..	13166
22. Soda	..	2	2
23. Candles, Paraffin Wax and Tallow	..	10906	10906
24. P.O.L.	513831	2686512	3200343
25. Cement	..	128580	128580
26. Transshipment Cargo	601	561	1162
27. Miscellaneous	3825	106067	109892
Total	591555	3671980	4203534

Source: Cochin Port Trust Administration Report 1981-82

## APPENDIX 7.17

Tonnage of Principal Commodities of Exports from Cochin Port during the year 1981-82

Commodities		Coastal	Foreign	Total
(1)		(2)	(3)	(4)
1.	Coir Products	..	31361	31361
2.	Tea	..	48165	48165
3.	Rubber	..	89	89
4.	Coffee	..	38544	38544
5.	Coconuts	..	..	..
6.	Copra	..	..	..
7.	Cashew Kernels	..	25930	25930
8.	Chemicals	3	4586	4589
9.	Cotton Raw Waste	..	4293	4293
10.	Rice and Other Foodgrains	4074	..	4074
11.	Pepper	..	20417	20417
12.	Ginger	..	3774	3774
13.	Cardamom	..	804	804
14.	Turmeric	..	2068	2068
15.	Coconut Oil	..	1	1
16.	Cashew Shell Liquid	..	5244	5244
17.	Lemongrass Oil	..	142	142
18.	Timber	176	3763	3939
19.	Marine Products	..	42546	42546
20.	Machinery	117	3313	3430
21.	Oil Cakes	..	..	..
22.	Iron and Steel	11	1654	1665
23.	Mineral Sand Including Granite	..	4744	4744
24.	Cement	1058	..	1058
25.	P.O.L.	976221	..	976221
26.	Transshipment Cargo	163	3988	4151
27.	Miscellaneous	3001	67618	70619
Total		984824	313044	1297868

Source: Cochin Port Trust Administration Report 1981-82.

## APPENDIX 7.18

*Growth of Post Offices in Kerala*

Category of Office	As on								
	1-4-1974	1-4-1975	1-4-1976	1-4-1977	1-4-1978	1-4-1979	1-4-1980	1-4-1981	1-4-1982
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Head Offices	28	29	31	32	33	34	44	51	51
2. Sub Post Offices	1204	1219	1233	1238	1270	1954	1994	2085	2099
3. Branch Offices	2786	2774	2780	2833	2915	2364	2474	2440	2484
Total	4018	4022	4044	4103	4218	4352	4512	4576	4634

Source: Post Master General, Kerala.

## APPENDIX 7.19

*Area and Population served by each Post Office in the various Districts of Kerala State as on 1-4-1982.*

	Name of District	Area Served by each Post Office (sq. km.)	Population Served by Each Post Office
	(1)	(2)	(3)
1.	Trivandrum	5.77	2192
2.	Quilon	10.29	4620
3.	Alleppey	4.57	1883
4.	Kottayam	5.40	2204
5.	Idukki	19.24	5061
6.	Ernakulam	6.54	2408
7.	Trichur	6.31	3031
	Palghat	10.12	4392
8.	Malappuram	9.59	3674
10.	Kozhikode	6.12	3314
11.	Wynad	13.99	2126
12.	Cannanore	9.16	4958
	Average For State	8.39	5482

Source: Post Master General, Kerala.

## APPENDIX 7.20

## Statistics of Post Offices as on 1-4-1982—Kerala Circle

Name of Division	Head Offices	Sub Offices	E.D. Sub Offices	Branch Offices	Mobile P.Os.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trivandrum North	2	70	13	88	14	187
2. Trivandrum South	2	55	21	99	16	193
3. Quilon	3	66	41	95	7	212
4. Pathanamthitta	3	60	48	109	17	237
5. Mavelikara	1	39	22	40	2	104
6. Alleppey	3	63	60	31	13	170
7. Tiruvalla	2	45	37	53	1	138
8. Changanacherry	2	45	25	77	1	150
9. Kottayam	3	81	52	118	4	258
10. Idukki	2	52	26	171	12	263
11. Ernakulam	2	70	7	49	4	132
12. Alwaye	3	64	60	96	3	226
13. Irinjalakuda	2	58	30	88	11	189
14. Trichur	3	83	58	126	21	291
15. Palghat	3	88	43	92	7	233
16. Ottapalam	2	48	39	102	10	201
17. Malappuram	2	41	37	117	23	220
18. Tirur	2	40	28	82	11	163
19. Calicut	2	72	22	171	12	279
20. Badagara	2	39	44	117	—	202
21. Tellichery	1	40	14	119	8	182
22. Cannanore	2	51	18	85	4	160
23. Kasaragode	2	36	48	153	5	244
Total	51	1306	793	2278	206	4634

Source: Post Master General, Kerala.

## APPENDIX 7.21

## Statistics Relating to Telephone Exchanges in Kerala for the years 1981 and 1982

Telephone District/Division	No. of Exchanges		Total Equipped Capacity		Total Working Connections		Total Waiting List		Public Call Offices	
	As on April 1981	As on April 1982	As on April 1981	As on April 1982	As on April 1981	As on April 1982	As on April 1981	As on April 1982	As on April 1981	As on April 1982
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Trivandrum Phones District	3	3	12600	12700	11549	12118	1813	2784	109	117
2. Ernakulam Phones District	6	6	14500	14700	13665	13951	2824	4232	73	85
3. Kerala State*	463	491	101399	108960	93302	99753	21743	28479	2298	2410

\*Excludes data relating to Calicut Phones District  
Source: General Manager, Telecommunications, Trivandrum.

## APPENDIX 8.1

*Export of Coir Products from India/Kerala*

(Quantity in Tonnes—Value in Rs. lakhs)

Item	1979-80		1980-81		1981-82	
	Kerala	India	Kerala	India	Kerala	India
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Coir Fibre						
(i) Quantity	27.5	36.0	163.7	163.7	1.0	1.0
(ii) Value	0.96	1.20	5.72	5.72	0.06	0.06
2. Coir Yarn						
(i) Quantity	25625.0	25872.0	13148.0	13486.1	15684.2	15836.6
(ii) Value	1339.72	1555.47	848.87	873.06	1036.56	1048.16
3. Coir Mats						
(i) Quantity	11664.0	11715.4	7327.1	7403.0	8110.6	8142.8
(ii) Value	1186.28	1191.26	613.12	823.30	915.25	920.59
4. Coir Mattings						
(i) Quantity	7929.6	7941.6	7010.3	7044.7	5422.4	5425.5
(ii) Value	826.23	828.08	800.06	805.12	653.95	654.17
5. Coir Rugs and Carpets						
(i) Quantity	1319.8	1319.8	274.4	274.4	526.9	526.9
(ii) Value	132.19	132.19	36.77	36.77	61.77	61.77
6. Coir Rope						
(i) Quantity	77.9	30.8	67.5	77.8	27.9	27.9
(ii) Value	4.16	4.31	3.58	4.72	2.55	2.55
7. Curled Coir						
(i) Quantity	240.3	240.3	148.0	148.0	93.0	93.0
(ii) Value	5.46	5.46	4.42	4.42	5.89	5.89
8. Coir other sorts						
(i) Quantity	17.5	17.7	10.4	11.8	25.0	25.0
(ii) Value	3.05	3.04	1.27	1.54	0.56	0.56
<b>Total</b> (i) Quantity	<b>46902</b>	<b>47224</b>	<b>28149.4</b>	<b>28609.5</b>	<b>29891.0</b>	<b>30078.7</b>
(ii) Value	<b>3698.05</b>	<b>3721.01</b>	<b>2513.81</b>	<b>2554.65</b>	<b>2676.59</b>	<b>2693.75</b>

## APPENDIX 9.1

*Progress of Educational Institutions—High Schools*

Year	Government Schools	Private Schools	Total
(1)	(2)	(3)	(4)
1961-62	276	653	929
1962-63	312	703	1015
1963-64	315	705	1020
1964-65	345	801	1146
1965-66	345	806	1151
1966-67	391	884	1276
1967-68	394	888	1292
1968-69	440	941	1381
1969-70	441	941	1382
1970-71	442	942	1384
1971-72	446	947	1393
1972-73	448	951	1399
1973-74	452	952	1404
1974-75	536	952	1488
1975-76	566	955	1521
1976-77	590	1076	1666
1977-78	594	1081	1675
1978-79	597	1083	1680
1979-80	597	1083	1680
1980-81	789	1187	1976
1981-82	888	1187	2075



## APPENDIX 9.2

*Progress of Educational Institutions—Upper Primary Schools*

Year	Government Schools	Private Schools	Total
(1)	(2)	(3)	(4)
1961-62	576	1409	1985
1962-63	711	1574	2285
1963-64	705	1580	2285
1964-65	758	1670	2428
1965-66	761	1686	2447
1966-67	778	1697	2475
1967-68	782	1697	2479
1968-69	797	1738	2535
1969-70	797	1735	2532
1970-71	809	1734	2543
1971-72	811	1740	2551
1972-73	811	1739	2550
1973-74	809	1739	2548
1974-75	857	1731	2588
1975-76	880	1726	2606
1976-77	883	1835	2718
1977-78	888	1830	2718
1978-79	893	1846	2739
1979-80	893	1846	2739
1980-81	867	1886	2753
1981-82	883	1896	2779

## APPENDIX 9.3

*Progress of Educational Institutions—Lower Primary Schools*

Year	Government Schools	Private Schools	Total
(1)	(2)	(3)	(4)
1961-62	2835	3910	6745
1962-63	2985	3919	6904
1963-64	2928	3991	6919
1964-65	2898	4032	6930
1965-66	2904	4050	6954
1966-67	2801	4072	6933
1967-68	2864	4076	6940
1968-69	2865	4112	6917
1969-70	2865	4123	6928
1970-71	2804	4091	6895
1971-72	2804	4091	6895
1972-73	2798	4089	6887
1973-74	2807	4097	6904
1974-75	2900	4075	6975
1975-76	2910	4065	6975
1976-77	2883	4109	6992
1977-78	2849	4120	6969
1978-79	2846	4124	6970
1979-80	2846	4124	6970
1980-81	2712	4149	6861
1981-82	2660	4151	6811

## APPENDIX 9.4

*District-wise Number of Schools Sanctioned during 1982-83*

District	L. P. Schools			U. P. Schools			High Schools		
	Govt.	PA.	PUA.	Govt.	PA.	PUA.	Govt.	PA.	PUA.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	..	4	..	..	5	..	..	3	..
Quilon	..	4	..	..	8	..	..	19	..
Alleppey	..	2	..	..	3	..	..	7	..
Kottayam	..	1	..	..	5	..	..	13	..
Idukki	..	5	..	..	3	..	..	5	..
Ernakulam	..	4	..	..	6	..	..	12	..
Trichur	..	..	..	..	4	..	..	13	..
Palghat	..	1	..	..	1	..	..	7	..
Malappuram	..	7	..	..	9	..	..	6	..
Kozhikode	..	1	..	..	6	..	..	10	..
Wymad	2	2	..	..	2	..	..	6	..
Cannanore	..	9	..	..	20	..	..	11	..
Total	2	40	..	..	72	..	..	112	..

PA—Private Aided  
PUA—Private Unaided.

## APPENDIX 9.5

*Standard-wise Strength of Students 1981-82*

Standard	Government Schools			Private Schools			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
I	141947	132762	274709	189757	181413	371170	331704	313175	644879
II	143735	134678	278213	191378	182765	374143	335113	317443	652556
III	131843	133036	274879	189179	180412	369591	331022	313448	644470
IV	144863	134552	279415	185973	177795	363768	330836	312347	643183
Total L. P. Section	572388	535028	1107416	756287	722385	1478672	1328675	1257413	2586088
V	119842	109040	228882	202204	189739	391943	322046	298779	620825
VI	105972	95722	201694	192890	180124	373014	298862	275846	574708
VII	98351	87967	186318	189257	176106	365363	287608	264073	551681
Total U.P. Section	324165	292729	616894	584351	545969	1130320	908516	838698	1747214
VIII	103568	94177	197745	153105	141967	295072	256673	236144	492817
IX	92973	84610	177583	142485	138077	280562	235458	222687	458145
X	70706	66890	137596	113723	115215	228938	184429	182105	366534
Total H.S. Section	267247	245677	512924	409313	395259	804572	676560	640936	1317496
Grand Total	1163800	1073434	2237234	1749951	1663613	3413564	2913751	2737047	5650798

## APPENDIX 9.6

*Standard-wise Strength of Students 1982-83 (\*)*

Standard	Boys	Girls	Total
(1)	(2)	(3)	(4)
I	319545	306454	625999
II	335850	320982	656832
III	322839	307494	630333
IV	326826	309073	635899
Total L. P. Section	1305060	1244003	2549063
V	318342	294866	613208
VI	308115	288530	596645
VII	297618	274083	571701
Total U. P. Section	924075	857479	1781554
VIII	259933	239509	499442
IX	232928	223076	456004
X	179424	180197	359621
Total H.S. Section	672285	642782	1315067
Grand Total	2901420	2744264	5645684

(\*) Provisional  
4/23/MC.

## APPENDIX 9.7

*Progress of Enrolment in the Different Stages of School Education*

Year	No. of Students in Primary Stage	Index of Growth	No. of Students in Secondary Stage	Index of Growth	Total	Index of Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1960-61	2939408	100	330893	100	3270301	100
1961-62	3041388	103	416364	126	3457752	106
1962-63	3131503	107	490564	148	3622067	111
1963-64	3263617	111	554819	168	3818436	117
1964-65	3424765	117	585336	177	4010101	123
1965-66	3552693	121	615143	186	4167836	127
1966-67	3688679	125	639959	193	4328638	132
1967-68	3784864	129	666773	202	4451637	136
1968-69	3912830	133	702384	212	4615204	141
1969-70	3989363	136	709290	214	4698653	144
1970-71	4074808	139	724724	219	4799532	147
1971-72	4229533	144	450198	227	4979731	152
1972-73	4375389	149	750886	236	5156275	158
1973-74	4404716	150	865861	262	5270577	161
1974-75	4423247	151	936042	283	5125705	157
1975-76	4377461	149	907896	274	5285357	162
1976-77	4350016	148	1003665	303	5353681	164
1977-78	4405592	150	1088166	329	5493758	168
1978-79	4340729	147	1197403	362	5538132	169
1979-80	4318198	147	1275063	385	5593261	171
1980-81	4283995	146	1310671	396	5594666	171
1981-82	4333302	147	1317496	398	5650798	173
1982-83	4330617	147	1315067	397	5645684	173

## APPENDIX 9.8

*Number of Students Appeared and Passed the S.S.L.C. Examination*

Year	Students Appeared for S.S.L.C. Examination			Students Passed S.S.L.C. Examination		
	Boys	Girls	Total	Boys	Girls	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
March 1981	238249	228828	467077	89736	94705	184441
September 1981	17564	13143	30707	1991	1993	3984
March 1982	Not available		516174	Not available		188788

## APPENDIX 9.9

*Number of Teachers in Schools—Section-wise—1980-81 and 1981-82*

Category of Schools	Number of Teachers					
	1980-81			1981-82*		
	Trained	Untrained	Total	Trained	Untrained	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. High School Section	45685	462	46147	47456	459	47915
2. Upper Primary Section	54248	2865	57293	55506	3059	58565
3. Lower Primary Section	69394	2146	71540	69338	2182	71520
4. Training Schools	454	..	454	454	..	454
Total	169961	5473	175434	172754	5700	178454

\* Provisional

## APPENDIX 9.10

*Number of Arts and Science Colleges in Kerala—District-wise*

District	1981-82			1982-83		
	Govt.	Private	Total	Govt.	Private	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	6	11	17	7	11	18
Quilon	1	16	17	1	16	17
Alleppey	..	15	15	..	15	15
Kottayam	1	20	21	1	20	21
Idukki	1	2	3	1	4	5
Ernakulam	3	17	20	4	19	23
Trichur	3	14	17	3	16	19
Palghat	3	6	9	3	7	10
Malappuram	3	6	9	3	7	10
Kozhikode	7	7	14	7	7	14
Wynad	2	..	2	2	2	4
Cannanore	6	7	13	6	8	14
Total	96	121	157*	98	132	170*

\* Excluding Evening Colleges.

## APPENDIX 9.11

*Number of Colleges Affiliated to the Universities in Kerala 1982-83*

Colleges	Kerala University			Cochin University			Calicut University			Total		
	Government	Private	Total	Government	Private	Total	Government	Private	Total	Government	Private	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Arts and Science Colleges	14	85	99	..	..	..	24	47	71	38	132	170
2. Training Colleges	1	13	14	..	..	..	3	2	5	4	15	19
3. Engineering Colleges	1	2	3	..	..	..	2	1(*)	3	3	3	6
4. Medical Colleges	3	..	3	..	..	..	2	..	2	5	..	5
5. Ayurveda Colleges	2	..	2	..	..	..	..	2	2	2	2	4
6. Law Colleges	2	1	3	..	..	..	1	..	1	3	1	4
<b>Total</b>	<b>23</b>	<b>101</b>	<b>124</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>32</b>	<b>52</b>	<b>84</b>	<b>55</b>	<b>153</b>	<b>208</b>

(\*) R.E.C. Calicut

## APPENDIX 9.12

*Enrolment by stages in Arts and Science Colleges in Kerala 1981-82(\*)*

Stage	Sector	Male	Female	Total
(1)	(2)	(3)	(4)	(5)
Pre-degree	Government	15154	11444	26598
	Private	69877	69937	139814
	Total	85031	81381	166412
Degree	Government	8709	6155	14864
	Private	38026	41619	79645
	Total	46735	47774	94509
Post-Graduate	Government	863	1127	1990
	Private	2593	2135	4728
	Total	3456	3262	6718
<b>Grand Total</b>		<b>135222</b>	<b>132417</b>	<b>267639</b>

(\*) Provisional

APPENDIX 9.13  
Number of Colleges, Students and Teachers in Colleges under Kerala University, 1981-82

Category of Colleges	No. of Colleges			No. of Students						No. of Teachers					
	Government		Total	Government College		Private College		Government College		Private College		Government College		Private College	
	(2)	(3)	(4)	Boys	Girls	Total	Boys	Girls	Total	Men	Women	Total	Men	Women	Total
(1)				(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1. Arts and Science Colleges	12	81	93	9439	8787	18226	74225	84172	158397	487	384	871	4230	2355	6585
2. Training Colleges	1	13	14	65	166	237	468	1423	1891	7	7	14	67	43	110
3. Engineering Colleges	1	2	3	1294	390	1684	1683	456	2139	145	48	193	166	42	208
4. Medical Colleges	3	..	3	1338	950	2288*	..	..	..	480	321	801	..	..	..
5. Ayurveda Colleges	2	..	2	219	212	431	..	..	..	55	23	78	..	..	..
6. Law Colleges	2	1	3	986	190	1176	631	75	706	21	7	28	10	1	11
Grand Total	21	97	118	13341	10695	24036	77007	86126	163133	1195	790	1985	4473	2441	6914

\* This figure excludes the number of students for B.D.S., B. Pharm, B.Sc. Nursing, P.G. Courses, P.G. Diploma Courses and Para-medical courses in Medical College, Trivandrum.

APPENDIX 9.14

Number of Colleges, Students and Teachers in Colleges under Calicut University, 1981-82

Category of Colleges	No. of Colleges			No. of Students						No. of Teachers					
	Government		Total	Government College		Private College		Government College		Private College		Government College		Private College	
	(2)	(3)	(4)	Boys	Girls	Total	Boys	Girls	Total	Men	Women	Total	Men	Women	Total
(1)				(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1. Arts and Science Colleges	24	40	64	16324	11725	28049	36607	26360	62967	843	321	1164	1817	902	2719
2. Training Colleges	3	2	5	184	246	430	83	157	240	29	9	38	9	5	14
3. Engineering Colleges	2	1	3	1487	180	1667	199	50	249	207	21	228	65	9	68
4. Medical Colleges	2	..	2	879	567	1446	..	..	..	197	117	314	..	..	..
5. Ayurveda Colleges	..	2	2	..	..	..	166	128	294	..	..	..	..	25	4
6. Law Colleges	1	..	1	341	74	415	..	..	..	6	2	8	..	..	..
Grand Total	32	45	77	19215	12792	32007	37055	26695	69750	1282	470	1752	1916	914	2830

## APPENDIX 9.15

*Number of Post Graduate Students in University Departments—Kerala and Calicut Universities, 1981-82*

Name of Department	Kerala University			Calicut University			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Department of Economics	24	20	44	17	7	24	41	27	68
2. " Politics	35	11	46	..	..	..	35	11	46
3. " History	17	19	36	14	18	32	31	37	68
4. " Psychology	10	22	32	12	8	20	22	30	52
5. " Sociology	16	21	37	..	..	..	16	21	37
6. " Journalism	27	8	35	..	..	..	27	8	35
7. " Library Science	2	4	6	..	..	..	2	4	6
8. " Sanskrit	..	..	..	3	11	14	3	11	14
9. " English	15	36	51	26	34	60	41	70	111
10. " Hindi	..	..	..	16	24	40	16	24	40
11. " Arabic	..	..	..	16	..	16	16	..	16
12. " Malayalam	14	16	30	10	16	26	24	32	56
13. " German	..	2	2	..	..	..	..	2	2
14. " Russian	9	11	20	..	..	..	9	11	20
15. " Tamil	4	7	11	..	..	..	4	7	11
16. " Linguistics	11	28	39	..	..	..	11	28	39
17. " Mathematics	12	23	35	21	6	27	33	29	62
18. " Statistics	14	14	28	..	..	..	18	14	28
19. " Physics	N.A.	N.A.	14	18	6	24	N.A.	N.A.	38
20. " Chemistry	..	..	..	7	13	20	7	13	20
21. " Biochemistry	4	10	14	..	..	..	4	10	14
22. " Botany	12	8	20	6	18	24	18	26	44
23. " Zoology	..	..	..	5	11	16	5	11	16
24. " Geology	14	2	16	..	..	..	14	2	16
25. " Education	..	..	..	16	11	27	16	11	27
26. " Commerce	..	..	..	27	3	30	27	3	30
27. " Demography and Population Studies	5	5	10	..	..	..	5	5	10
28. " Life Science	..	..	..	6	4	10	6	4	10
29. " Philosophy	..	..	..	12	12	24	12	12	24
Total	245	267	526	214	196	410	459	463	960



## APPENDIX 9.16

Number of Engineering Colleges, Students and Teachers in Kerala—1981-82\*

Type of Management	No.	Enrolment			Teachers
		Boys	Girls	Total	
(1)	(2)	(3)	(4)	(5)	(6)
Government	2	2109	498	2607	345
Private	3	1686	303	1989	314
Quasi-Government (R.E.C.)	1	1039	51	1090	127
Total	6	4834	852	5686**	772@

\*Provisional

\*\*Including Part-time Degree Course Students

@Excluding Skilled Assistants

## APPENDIX 9.18

Number of Students and Teachers in Polytechnics in Kerala 1981-82\*

Type of Management	Enrolment	Teachers
(1)	(2)	(3)
Government	5785**	610
Private	2883	280
Total	8668	890

\*Provisional

\*\*Including Part-time Diploma Course Students.

## APPENDIX 9.17

Number of Polytechnics in Kerala—District-wise 1981-82 and 1982-83

District	1981-82			1982-83		
	Government	Private	Total	Government	Private	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trivandrum	2	..	2	2	..	2
2. Quilon	..	1	1	..	1	1
3. Alleppey	..	2	2	..	2	2
4. Kottayam	1	..	1	1	..	1
5. Idukki	1	..	1	1	..	1
6. Ernakulam	1	..	1	1	..	1
7. Trichur	3	1	4	3	1	4
8. Palghat	2	..	2	2	..	2
9. Malappuram	1	1	2	1	1	2
10. Kozhikode	2	..	2	2	..	2
11. Wynad	..	..	..	..	..	..
12. Cannanore	1	1	2	1	1	2
Total	14	6	20	14	6	20

## APPENDIX 9.19

Number of Junior Technical Schools in Kerala—District-wise—1981-82 and 1982-83

District	1981-82	1982-83
(1)	(2)	(3)
1. Trivandrum	2	2
2. Quilon	2	2
3. Alleppey	2	2
4. Kottayam	2	2
5. Idukki	1	1
6. Ernakulam	1	1
7. Trichur	4	4
8. Palghat	3	3
9. Malappuram	2	2
10. Kozhikode	2	2
11. Wynad	1	1
12. Cannanore	3	3
Total	25	25

## APPENDIX 9.20

## Progress of Expenditure on General School Education

Year	Expenditure (Rs. in crores)	Index of Increase
(1)	(2)	(3)
1961-62	16.83	100
1962-63	17.11	102
1963-64	18.46	110
1964-65	19.88	118
1965-66	25.23	150
1966-67	29.33	174
1967-68	36.66	218
1968-69	49.21	251
1969-70	49.07	292
1970-71	52.53	312
1971-72	57.64	342
1972-73	59.71	355
1973-74	67.39	400
1974-75	86.17	512
1975-76	105.69	628
1976-77	116.73	694
1977-78	124.80	742
1978-79	134.14	797
1979-80	157.11	934
1980-81	179.66	1082
1981-82	207.44 (R.E.)	1233
1982-83	226.18 (B.E.)	1344

R. E.—Revised Estimate  
B. E.—Budget Estimate

## APPENDIX 9.21

## Cost Per Pupil Per Year in the Different Stages of School Education

Year	(Amount in Rupees)	
	Primary Stage	Secondary Stage
(1)	(2)	(3)
1965-66	49.30	90.37
1966-67	54.17	103.81
1967-68	65.07	130.07
1968-69	73.23	139.71
1969-70	82.38	164.08
1970-71	85.91	176.23
1971-72	89.26	187.29
1972-73	94.51	194.15
1973-74	102.24	211.70
1974-75	117.52	217.90
1975-76	170.02	361.32
1976-77	186.16	356.40
1977-78	193.61	363.02
1978-79	206.21	356.43
1979-80	238.27	369.34
1980-81	265.24	454.25
1981-82	310.31	504.97
1982-83	338.38	557.79

## APPENDIX 9.22

## Per Capita Government Expenditure on Education in Kerala

Year	Population (Lakhs)	Government Expenditure on Education (Rs. lakhs)	Expenditure per Head (Rs.)
(1)	(2)	(3)	(4)
1961-62	173.02	1854.84	10.72
1962-63	177.02	1914.14	10.81
1963-64	181.26	2019.46	11.14
1964-65	185.52	2807.80	12.44
1965-66	189.88	2837.43	14.94
1966-67	194.35	3774.60	17.88
1967-68	198.92	4147.85	20.85
1968-69	203.48	4363.98	22.92
1969-70	208.15	5428.98	26.08
1970-71	212.80	6012.37	28.25
1971-72	218.29	6614.87	30.30
1972-73	223.92	7104.72	31.73
1973-74	228.18	8234.58	36.07
1974-75	232.45	10317.00	44.38
1975-76	234.80	12897.00	54.93
1976-77	239.50	14102.81	58.88
1977-78	243.90	15156.30	62.14
1978-79	246.21	16013.34	65.04
1979-80	249.90	18433.49	73.76
1980-81	253.84	21098.54	83.12
1981-82	254.03	24655.19 (R.E.)	97.06
1982-83	259.49	26748.67 (B.E.)	103.08

R. E.—Revised Estimate  
B. E.—Budget Estimate

## APPENDIX 9.23

Per Capita State Government Expenditure on Education—  
State-wise 1981-82

States	Per Capita Expenditure on Education (B.E.) (Rs.)
(1)	(2)
1. Kerala	93
2. Punjab	67
3. Haryana	58
4. Maharashtra	58
5. Gujarat	55
6. Tamil Nadu	53
7. West Bengal	53
8. Karnataka	50
9. Assam	48
10. Andhra Pradesh	49
11. Rajasthan	44
12. Orissa	43
13. Bihar	37
14. Madhya Pradesh	36
15. Uttar Pradesh	31
16. Nagaland	174
17. Manipur	120
18. Sikkim	118
19. Jammu & Kashmir	106
20. Himachal Pradesh	100
21. Meghalaya	81
22. Tripura	71
All States	48

Source: Basic Statistics Relating to Indian Economy 1982—Vol. II  
Centre for Monitoring Indian Economy.

APPENDIX 9.24  
Literacy—State-wise 1981\*

States/Union Territories	Literates as percentage of Population
(1)	(2)
<i>Major States</i>	
1. Andhra Pradesh	29.7
2. Assam	..
3. Bihar	26.0
4. Gujarat	43.8
5. Haryana	35.8
6. Karnataka	38.4
7. Kerala	69.2
8. Madhya Pradesh	27.8
9. Maharashtra	47.0
10. Orissa	34.1
11. Punjab	40.7
12. Rajasthan	24.1
13. Tamil Nadu	45.8
14. Uttar Pradesh	27.4
15. West Bengal	40.9
<i>Other States</i>	
16. Himachal Pradesh	41.9
17. Jammu & Kashmir	26.2
18. Manipur	41.5
19. Meghalaya	33.4
20. Nagaland	42.0
21. Sikkim	33.9
22. Tripura	41.8
<i>Union Territories</i>	
23. Andaman	51.3
24. Arunachal Pradesh	20.1
25. Chandigarh	64.7
26. Dadra & Nagar Haveli	26.6
27. Delhi	61.1
28. Goa, Daman & Diu	55.9
29. Lakshadweep	54.7
30. Mizoram	59.5
31. Pondicherry	54.1
All India	36.0

\* Provisional.

Source: Basic Statistics Relating to Indian Economy 1982-Vol. II—  
Centre for Monitoring Indiaa Economy.

APPENDIX 9.25  
Literacy in Kerala—District-wise—1981

State /District	Literates as percentage of Population
(1)	(2)
1. Trivandrum	70.50
2. Quilon	74.11
3. Alleppey	78.52
4. Kottayam	81.66
5. Idukki	67.44
6. Ernakulam	76.82
7. Trichur	73.59
8. Palghat	58.00
9. Malappuram	60.50
10. Kozhikode	70.12
11. Wynad	58.33
12. Cannanore	65.74
Kerala	70.42

Source: Census of India 1981—Series 10-Kerala Paper 3 of 1981

APPENDIX 9.26

Medical Institutions and Beds in Kerala as on 31-3-1982

District	Hospitals		F.H. Centres		Dispensaries		M.C.H. Centres		T.B. Centres		Others		Tot	
	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Trivandrum	16	4695	17	272	60	175	1	..	1	28	2	508	97	5678
Quilon	12	1585	20	217	60	117	1	60	1	..	3	86	97	2065
Alleppey	12	2195	20	221	52	124	1	12	1	12	2	993	88	3557
Kottayam	14	2368	15	184	34	107	1	16	1	48	1	..	66	2723
Idukki	4	230	5	70	37	95	..	..	..	..	..	..	46	395
Ernakulam	22	2522	17	295	55	174	..	..	1	40	3	..	98	3031
Trichur	18	2282	19	250	43	73	..	..	1	..	3	906	84	3511
Palghat	11	1058	13	137	58	152	..	..	1	52	..	..	83	1399
Malappuram	9	826	14	114	63	70	..	..	1	..	2	52	89	1062
Kozhikode	9	3291	13	126	39	76	1	6	1	..	1	263	64	3762
Wynad	4	388	4	6	21	44	..	..	..	..	..	..	29	388
Cannanore	14	1813	15	250	94	224	..	..	1	..	3	396	127	2683
Kerala	145	23203	172	2142	616	1431	5	94	10	180	20	3204	968*	30254*

\*Excludes Grant-in-aid Institutions  
Source: Directorate of Health Services, Trivandrum

## APPENDIX 9.27

*Year-wise Details Regarding the Number of Doctors, Hospitals, Beds etc.—All India*

Year	Registered Doctors			Beds *		
	Total	Per Lakh of Population	Hospitals	Dispensaries	('000)	Per Lakh of Population
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1971	1,48,522	27.1	3,862	12,180	349	64
1972	1,60,028	28.6	3,841	10,372	379	68
1973	1,72,355	30.1	3,855	11,985	391	68
1974	1,84,960	31.6	4,014	10,200	402	69
1975	1,97,650	33.0	4,023	11,295	404	68
1976	2,10,504	34.4	4,465	11,696	449	74
1977	2,23,387	35.7	5,445	12,656	494	79
1978	2,35,631	36.8	5,815	14,828	523	82
1979	2,41,179	36.9	6,625	15,599	554	85

\*Includes all types of beds in Hospitals, Dispensaries, Voluntary Organisations etc.

Source:—Basic Statistics Relating to the Indian Economy Vol. I; All India, August 1982.

## APPENDIX 9.28

*State-wise Details Regarding the Number of Hospitals, Beds, Doctors etc.*

Major States	Hospitals		Hospital Beds		Doctors Registered with State Medical Councils, 1980	
	Number	Per '000 Sq. Km. of Area	Number	Per Lakh of Population	Number	Per Lakh of Persons
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Kerala	758	19.5	43,078	172	11,092	45
Maharashtra	968	3.2	67,556	110	39,062	64
Gujarat	828	4.2	32,081	97	13,881	42
Punjab	253	5.0	14,189	87	20,012	123
West Bengal	352	4.0	46,492	87	31,623	59
Tamil Nadu	374	2.9	40,198	85	30,299	64
Karnataka	233	1.2	29,675	82	18,959	52
Andhra Pradesh	608	2.2	32,798	63	21,487	45
Haryana	84	1.9	7,163	57	..	..
Rajasthan	229	0.7	16,559	50	8,124	25
Assam	108	1.4	9,366	49	7,165	37
Orissa	301	1.9	10,774	42	7,704	30
Uttar Pradesh	709	2.4	44,822	41	22,610	21
Bihar	226	1.3	22,574	33	17,063	25
Madhya Pradesh	268	0.6	16,037	32	3,562	7

Source:—Basic Statistics Relating to the Indian Economy, September, 1982.

## APPENDIX 9.29

## Medical and Public Health - Detailed Break-up of Expenditure

(Rs. in lakhs)

Item	1981-82 (R. E.)	1982-83 (B. E.)
(1)	(2)	(3)
<b>1. Medical:</b>		
(a) Medical Establishment	52.78	55.19
(b) Hospitals and Dispensaries	3578.24	3674.90
(c) Ayurvedic Medicines	419.71	446.23
(d) Medical Colleges and Schools	835.53	896.54
(e) Others	191.02	192.59
(f) Employees' State Insurance Schemes	523.56	532.33
<b>2. Public Health:</b>		
(a) Public Health Establishment	314.33	357.99
(b) Prevention of Food Adulteration	32.38	34.23
(c) Bacteriological Laboratories	63.12	67.96
(d) Family Welfare	758.44	842.96

Source: Kerala Budget in Brief, 1982-83

## APPENDIX 9.30 ✓

Per Capita Expenditure on Medical and Public Health  
(Revenue Accounts)

States	1977-78 Revised Estimate (Rs.)	1978-79 Budget Estimate (Rs.)
(1)	(2)	(3)
1. Andhra Pradesh	14.96	15.89
2. Assam	13.22	11.98
3. Bihar	7.84	7.95
4. Gujarat	16.46	16.56
5. Haryana	18.05	21.25
6. Jammu & Kashmir	25.92	27.71
7. Kerala	19.29	20.63
8. Madhya Pradesh	13.84	15.95
9. Maharashtra	16.68	20.06
10. Karnataka	14.36	18.34
11. Orissa	12.95	15.53
12. Punjab	20.54	23.81
13. Rajasthan	18.81	20.09
14. Tamil Nadu	16.43	17.20
15. Uttar Pradesh	8.25	9.53
16. West Bengal	15.09	16.66
All States--Average	14.13	14.14

Source: Kerala Budget in Brief, 1982-83.

## APPENDIX 9.31

District-wise Distribution of Institutions and Beds Under Ayurvedic  
System of Medicine as on 31-3-1982

District	Hospitals		Number of Dispensaries	Total Number of Institutions
	Number of Hospitals	Number of Beds		
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	12	225	43	55
2. Quilon	9	150	40	48
3. Alleppey	10	180	41	52
4. Kottayam	8	140	23	31
5. Idukki	2	60	19	21
6. Ernakulam	11	180	34	45
7. Trichur	13	203	57	70
8. Palghat	5	120	41	46
9. Malappuram	10	180	41	51
10. Kozhikode	4	50	31	36
11. Wynad	1	10	8	8
12. Cannanore	7	141	61	68
Total	92	1639	439	531

## APPENDIX 9.32

District-wise Distribution of Institutions and Beds Under  
Homoeopathy as on 31-3-1982

District	Hospitals		Number of Dispensaries	Total Number of Institutions
	No. of Hospitals	No. of Beds		
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	4	150	20	24
2. Quilon	1	25	18	19
3. Alleppey	3	75	18	21
4. Kottayam	3	125	17	20
5. Idukki	2	50	12	14
6. Ernakulam	2	50	19	21
7. Trichur	1	25	12	13
8. Palghat	1	25	13	14
9. Malappuram	2	50	20	22
10. Kozhikode	1	25	17	18
11. Wynad	..	..	2	2
12. Cannanore	3	75	23	26
Total	23	675	191	214

## APPENDIX 9.33

*Number of Family Welfare Centres (Urban and Rural) 1980-81*

District	Main Centres	Sub Centres	Others	Total
(1)	(2)	(3)	(4)	(5)
Trivandrum	18	31	139	188
Quilon	21	54	160	235
Alleppey	21	39	97	157
Kottayam	15	49	93	157
Idukki	4	14	63	81
Ernakulam	17	46	109	172

(1)	(2)	(3)	(4)	(5)
Trichur	19	54	132	205
Palghat	12	32	110	154
Malappuram	13	36	125	174
Kozhikode	14	35	99	142
Wynad	4	8	33	45
Cannanore	14	35	151	200
Total	172	433	1305	1910

Source: Directorate of Health Services, Trivandrum

## APPENDIX 9.34

*Achievements under Family Welfare Programme for the year 1980-81 and 1981-82*

District	1980-81				1981-82			
	Vasectomy	P.P.S	Induced Abortion	I.U.D	Vasectomy	P.P.S	Induced Abortion	I.U.D
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Trivandrum	1714	16682	..	1344	1551	18006	..	1616
2. Quilon	1076	13818	..	1638	748	14465	..	1674
3. Alleppey	2982	8175	..	2812	2598	9130	..	2682
4. Kottayam	1106	7735	..	2583	1071	7609	..	3258
5. Idukki	637	1216	..	755	1760	3028	..	468
6. Ernakulam	1667	9693	..	1891	1913	11349	..	2286
7. Trichur	1414	11519	..	1026	1292	12235	..	1414
8. Palghat	468	4002	..	2112	460	4603	..	2219
9. Malappuram	420	4449	..	1938	252	5290	..	2033
10. Kozhikode	2028	10653	..	1133	1295	11059	..	1323
11. Wynad	216	533	..	158	1162	1576	..	511
12. Cannanore	2126	8645	..	1004	2160	9246	..	1074
Kerala	15854	97120	35340	18394	16262	107596	35033	20558

Source: Directorate of Health Services, Trivandrum.

APPENDIX 9.35

Urban Water Supply Schemes in the State (Including L. I. C. Aided Schemes)

District	Progress during 1980-81 (Nos.)				Progress during 1981-82 (Nos.)*			Towns having Protected Water Supply (Nos)			Percentage Urban population covered by the end of		
	Schemes in operation at the end of 1979-80	Schemes completed during 1980-81	Schemes in operation by the end of the year	Schemes under construction at the end of the year	Schemes completed during 1981-82	Schemes in operation by the end of the year	Schemes under construction at the end of the year	1979-80	1980-81	1981-82	*1979-80	1980-81	1981-82*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Trivandrum	3	..	3	1**	..	3	1**	3	3	3	81	81	82
Quilon	1	1	2	1	..	2	1	1	2	2	62	62	62
Alleppey	5	..	5	2(b)	2(b)	5	..	5	5	5	84	84	85
Kottayam	3	..	3	2(b)	1, 1(b)	4	..	3	3	4	70	70	75
Idukki	..	..	..	1	..	..	1	..	..	..	..	..	..
Ernakulam	5	..	5	2	..	5	2	5	5	5	81	81	81
Trichur	5	..	5	2(b)	..	5	2(b)	5	5	5	69	69	70
Palghat	2	..	2	1(b)	..	2	1(b)	2	2	2	58	58	58
Malappuram	2	..	2	1(b)	..	2	1(b)	2	2	2	51	51	55
Kozhikode	2	..	2	..	2	..	2	2	2	2	69	69	70
Wynad	..	..	..	..	..	..	..	..	..	..	..	..	..
Cannanore	3	..	3	..	..	3	..	3	3	3	55	55	58
State	31	1	32	13	4	33	9	31	32	33	62	62.5	62.9

\*Provisional

\*\*Peppara Dam for the Augmentation of Trivandrum W/S. Scheme

(b) Including Augmentation Scheme



## APPENDIX 9.36

*Rural Water Supply Schemes in the State (Piped) (including L.I.C. Aided Schemes)*

District	No. of Schemes in operation at the end of 1979-80	Progress During 1980-81 (Nos.)			Progress During 1981-82 (Nos.)*		
		Schemes Completed During the year	Schemes in Operation by the End of the Year	Schemes Under Construction at the end of the Year	Schemes Completed During the year	Schemes in Operation at the End of the year	Schemes Under Construction at the end of the Year
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Trivandrum	71	7	78	26	8	86	46
2. Quilon	57	12	69	42	7	78	76
3. Alleppey	73	6	79	37	8	87	45
4. Kottayam	103	9	112	33	8	120	32
5. Idukki	22	7	29	14	10	39	34
6. Ernakulam	82	7	89	33	15	104	65
7. Trichur	91	5	96	27	14	110	36
8. Palghat	77	7	84	25	10	94	37
9. Malappuram	51	7	58	19	8	66	50
10. Kozhikode	64	8	72	23	7	79	24
11. Wynad	..	..	..	..	..	..	-
12. Cannanore	109	8	117	20	15	132	38
Total	800	83	883	299	110	995	484

\* Provisional

APPENDIX 9.37

Drainage/Sewerage Schemes in the State

District	Name of Schemes	Schemes in Operation at the end of 1979-80 (Nos.)		Progress during 1980-81 (Nos.)		Progressing during 1981-82 (Nos.)*					Town Covered by the end of Population covered (%) by the end of			
		Schemes completed during the year	Schemes in operation by the end of year	Schemes completed during the year	Schemes under construction during the year	Schemes completed during the year	Schemes in operation by the end of year	Schemes Under construction during the year	1979-80	1980-81	1981-82	1979-80	1980-81	1981-82*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Trivandrum	Trivandrum	1†	..	1†	1	..	1†	1	1†	1†	1†	30	30	30
Quilon	Quilon	..	..	..	1	..	..	1	..	..	..	..	..	..
Alleppey		..	..	..	..	..	..	..	..	..	..	..	..	..
Kottayam		..	..	..	..	..	..	..	..	..	..	..	..	..
Idukki		..	..	..	..	..	..	..	..	..	..	..	..	..
Ernakulam	Cochin	1†	..	1†	1	..	1†	1	1†	1†	1†	10	15	15
Trichur	Guruvayoor	..	..	..	1	..	..	1	..	..	..	..	..	..
Palghat		..	..	..	..	..	..	..	..	..	..	..	..	..
Malappuram		..	..	..	..	..	..	..	..	..	..	..	..	..
Kozhikode	Calicut	..	..	..	1	..	..	1	..	..	..	..	..	..
Wynad		..	..	..	..	..	..	..	..	..	..	..	..	..
Cannanore		..	..	..	..	..	..	..	..	..	..	..	..	..
State		2	..	2	5	..	2	5	2	2	2	..	..	..

\* Provisional  
† Partially Covered.

## APPENDIX 9.38

## LIC Aided Rural Water Supply Schemes in the State

District	Schemes in Operation at the End of 1979-80 (Nos.)	Progress During 1980-81 (Nos.)			Progress During 1981-82*		
		Schemes Completed During 1980-81	Schemes in Operation at the End of 1980-81	Schemes under Construction at the end 1980-81	Schemes Completed During 1981-82 (upto 12/81)	Schemes in Operation at the End of 1981-82	Schemes Under Construction at the End of 1981-82 (as on 12/81)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Trivandrum	21	..	21	..	..	21	5
2. Quilon	11	2	13	1	1	14	3
3. Alleppey	15	..	15	3	..	15	8
4. Kottayam	29	..	29	2	..	29	4
5. Ernakulam	18	..	18	..	2	20	3
6. Idukki	..	..	..	..	..	..	4
7. Trichur	19	..	19	1	..	19	7
8. Palghat	17	..	17	1	..	17	12
9. Malappuram	16	..	16	1	..	16	2
10. Kozhikode	9	..	9	..	..	9	10
11. Wynad	..	..	..	..	..	..	..
12. Cannanore	26	..	26	1	..	26	12
Total	181	2	183	10	3	186	70

\*Provisional

## APPENDIX 9.39

## L.I.C. Aided Urban Water Supply Schemes in the State

District	Schemes in Operation at the end of 1979-80 (Nos.)	Progress during 1980-81 (Nos.)			Progress During 1981-82 (Nos.)*		
		Schemes Completed During 1980-81	Schemes in Operation at the end of 1980-81	Schemes Under Construction at the end of 1980-81	Schemes Completed During 1981-82	Schemes in Operation at the end of 1981-82	Schemes Under Construction at the end of 1981-82
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Trivandrum	3	..	3	..	..	3	..
2. Quilon	..	1	1	1	..	1	1
3. Alleppey	5	..	5	2(b)	2(b)	5	..
4. Kottayam	2	..	2	1+1(b)	1+1(b)	3	..
5. Idukki	..	..	..	1	..	..	1
6. Ernakulam	5	..	5	2	..	5	2
7. Trichur	5	..	5	1+1(b)	..	5	2(b)
8. Palghat	2	..	2	1(b)	..	2	1(b)
9. Malappuram	2	..	2	1(b)	..	2	1(b)
10. Kozhikode	2	..	2	..	..	2	..
11. Wynad	..	..	..	..	..	..	..
12. Cannanore	3	..	3	..	..	3	..
State	29	1	30	12	4	31	8

\*Provisional

(b) Including Augmentation Schemes

## APPENDIX 9.40

## †Expenditure on Sewerage and Water Supply Schemes in the State (Including L.I.C. Assisted Schemes)

(Rs. in lakhs)

Year	Water Supply						Sewerage/Drainage Schemes					
	Urban			Rural			Total			Plan	Non-Plan	Total
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1979-80	582.23	386.93	969.16	350.19	78.57	428.76	932.42	465.50	1397.92	90.40	22.84	113.24
1980-81	918.20	460.27	1378.47	246.16	84.47	330.63	1164.36	544.74	1709.10	126.30	23.27	149.57
1981-82 (Provisional)	900.00	524.70	1024.70	628.00	90.00	718.00	1528.00	614.70	2142.20	200.00	234.00	234.00

†Excluding expenditure on ESP type latrines and open dug wells and water pollution control.

## APPENDIX 9.41

## Expenditure on Water Supply Scheme with LIC Assistance

(Rs. in lakhs)

Year	Urban Water Supply Scheme				Rural Water Supply Scheme				Total			
	Plan		Non-Plan	Total 2+4	Plan		Non-Plan	Total 6+8	Plan		Non-Plan	Total 10+12
	Total	Of which L.I.C. Aid			Total	Of which L.I.C. Aid			Total	Of which L.I.C. Aid		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1979-80	582.23	582.23	386.93	969.16	350.19	91.16	78.57	428.76	932.42	673.39	465.50	1397.92
1980-81	918.20	918.20	460.27	1378.47	246.16	40.14	84.47	330.63	1164.36	958.34	544.74	1769.10
1981-82 (Provisional)	900.00	900.00	524.70	1024.70	628.00	153.00	90.00	718.00	1526.00	1053.00	614.70	2142.70

Source: P.H.E.D.(App. 9.35—9.41)

Note: Details relating to the year under review have not been furnished by the P.H.E.D.

## APPENDIX 9.42

## Waste Water Collection and Treatment Situation in Kerala

Type/Category of Industry	Nos.	Position during 1974-75 Waste Water		Nos.	Position During 1982-83 Waste Water	
		Generated Litres/day ('000)	% of Pollutants Removed		Generated Litres/day ('000)	% of Pollutants Removed
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I. Non-Ferrous Metallurgical Industries	1			1		
(i) Indian Aluminium Co., Alwaye		13,700	No treatment required		13,700	No treatment required
II. Ore Processing Industries	3			3		
(i) Cominco Binani Zinc Ltd., Binanipuram		23,150	0		23,150	60% Treatment
(ii) Indian Rare Earth Ltd. Chavara		2,200	0		2,200	0
(ii) Indian Rare Earths, Udyogamandal		4,586	0		4,586	90% Treatment
Sub Total		<u>29,936</u>			<u>29,936</u>	
III. Petroleum Industry	1			1		
(i) Cochin Refineries, Ambalamughal		8,250	95% Treatment		8,250	95% Treatment
IV. Chemical Industry	7			9		
(i) Titanium Products, Trivandrum		1,000	0		1,000	0
(ii) T. K. Chemicals, Trivandrum		..			77	50% Treatment
(iii) Travancore Electro-Chemicals Ltd., Chingavanam, Kottayam		40	0		40	50% Treatment
(iv) Premier Tyres Ltd., Kalamassery		600	No treatment required		600	No treatment required
(v) Travancore Cochin Chemicals Ltd., Udyogamandal		10,200	0		10,200	50% Treatment (An extensive treatment plant proposed)
(vi) Hindustan Insecticides Ltd., Udyogamandal		245	0		325	90% Treatment

(1)	(2)	(3)	(4)	(5)	(6)	(7)
(vii) Periyar Chemicals, Binanipuram		120	0		120	80% Treatment (Partially treated)
(viii) Appollo Tyres, Chalakudy		--			1138	80% Treatment
(ix) Gwalior Rayons		51,110			51,110	65% Treatment
Sub Total		63,315			64,610	
<b>V. Textile Industry</b>	<b>3</b>			<b>3</b>		
(i) Madura Coats, Koratti, Trichur		2,500	0		2,500	50% Treatment
(ii) Sitaram Textiles, Trichur		720	0		720	70% Treatment
(iii) Travancore Rayons, Perumbavoor		73,000	0		73,000	100% Treatment
Sub Total		76,220			76,220	
<b>VI. Paper Industry</b>	<b>1</b>			<b>2</b>		
(i) Punalur Paper Mills, Punalur, Quilon		8,900	0		8,900	30% Treatment
(ii) Hindustan Paper Corporation, Velloor		..			33,000	100% Treatment
Sub Total		8,900			41,900	
<b>VII. Fertiliser Industry</b>	<b>2</b>			<b>3</b>		
(i) FACT, Cochin Division, Phase I		12,000	0		12,000	50% Treatment
(ii) FACT, Cochin Division, Phase II		..			40,800	50% Treatment
(iii) FACT, Udyogamandal		61,000	0		61,000	50% Treatment
Sub Total		73,000			1,13,800	
<b>VIII. Processing of animal or vegetable product, Industry</b>	<b>7</b>			<b>9</b>		
(i) Lekshmi Starch, Kundara		1,150	0		1,150	30% Treatment
(ii) Padinjarekkara Agencies, Kottayam		92	0		92	30% Treatment
(iii) Travancore Sugars and Chemicals Ltd		45,815	0		45,815	50% Treatment
(iv) Tata Oil Mills		12,700	0		12,700	30% Treatment
(v) Milk Project, Edappally, Cannanore		90	0		90	90% Treatment
(vi) Kerala Chemicals & Proteins Ltd., Koratti		..			2,400	90% Treatment
(vii) Tapioca Products, Chalakudy		320	0		320	70% Treatment
(viii) Western India Plywood Ltd., Baliapattom, Cannanore		50	0		50	65% Treatment
(ix) Vachinadu Leathers, Kuttipuram		..			102	50% Treatment
Sub Total		60,217			62,719	
Grand Total	25	333,538		31	411,135	

Note: All the Major Industries under each Type/Category have been described above.

Source: Kerala State Pollution Control Board.

## APPENDIX 9.43

*Financial Achievements Relating to the Department of  
Town Planning*  
(Rs. lakhs)

Year	Plan	Non Plan	Total
(1)	(2)	(3)	(4)
1979-80	64.09	25.52	89.61
1980-81	31.68	28.26	59.94
1981-82	44.18	23.94	68.12
1982-83	218.29	35.51	253.80

(Anticipated)

Source: Chief Town Planner

## APPENDIX 9.44

*Financial Achievement Relating to the Department of Municipal  
Administration*

Year	Plan	Non-Plan	Total
(1)	(2)	(3)	(4)
1979-80	42.09	90.36	132.45
1980-81	203.00	84.73	287.75
1981-82	221.00	102.75	323.75
1982-83	157.00	147.32	394.32

(Anticipated)

Source: Director of Municipal Administration

## APPENDIX 9.45

*Town and Regional Planning Achievements*

Details	Unit	Upto 1979-80	During 1980-81	During 1981-82
(1)	(2)	(3)	(4)	(5)
1. Master Plans Prepared	Nos.	15	1	Nil
2. Master Plans Sanctioned by Government	"	3	..	Nil
3. Regional Plans Prepared	"	1	..	Nil
4. Town Improvement projects prepared (Under the Centrally Sponsored Schemes)	"	3	7	2
5. District Planning Units Functioning	"	8	2	Nil
6. Planning and Development Authorities Formed	"	4	1	3
7. Traffic Operation Plans Prepared for Urban Centres	"	Nil	Nil	Nil
8. Others	"	Nil	Nil	Nil

Source: Chief Town Planner

## APPENDIX 9.46

*Financial Assistance to Planning and Development Authorities  
Provided by the Chief Town Planner*  
(Plan Scheme)

Name of Scheme/Development Authority	Assistance Given During		
	Upto 1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)
1. Financial Assistance to Planning and Development Authorities for implementation of development plans—			
(i) Calicut Development Authority	20.51	Nil	Nil
(ii) Trivandrum Development Authority	20.00	Nil	Nil
(iii) Greater Cochin Development Authority	Nil	5.00	Nil
(iv) Idukki Development Authority	Nil	5.00	Nil
(v) Kothamangalam Municipality	Nil	Nil	3.00
(vi) Perumbavoor Municipality	Nil	Nil	1.00
(vii) Chalakudy Municipality	Nil	Nil	2.00
(viii) Punalur Municipality	Nil	Nil	4.00
(ix) Chengannur Municipality	Nil	Nil	2.00
(x) Trichur Municipality	Nil	Nil	2.00
(xi) Quilon Development Authority	Nil	Nil	2.00
(xii) Trichur Development Authority	Nil	Nil	Nil
(xiii) Palghat Development Authority	Nil	Nil	Nil
Sub Total 1	40.51	10.00	16.00
2. Financial Assistance to Development Authorities for Urban Environmental Improvement Scheme			
(i) Greater Cochin Development Authority	1.00	1.00	Nil
Sub Total 2	1.00	1.00	Nil
3. Urban Development Including Acquisition of land—			
(i) Calicut Development Authority	5.00	3.00	Nil
(ii) Trivandrum Development Authority	5.00	Nil	Nil
Sub Total 3	10.00	3.00	Nil
4. Creation of Planning and Development Authorities in District Headquarters and Urban Centres—			
(i) Velloor Mulakkulam Development Authority	Nil	1.00	1.05
(ii) Trivandrum Development Authority	Nil	4.00	3.70
(iii) Calicut Development Authority	Nil	3.00	Nil
(iv) Trichur Development Authority	Nil	Nil	2.00
(v) Quilon Development Authority	Nil	Nil	2.00
(vi) Kottayam Development Authority	Nil	Nil	..
(vii) Palghat Development Authority	Nil	Nil	..
Sub Total 4	Nil	8.00	8.75
5. Scheme for Development of Growth Centres—			
(i) Muthukulam Panchayat	Nil	0.20	Nil
(ii) Kendalloor Panchayat	Nil	0.20	Nil
(iii) Arattupuzha Panchayat	Nil	1.10	Nil
Sub Total 5	Nil	1.50	Nil
Grand Total 1 to 5	51.51	23.50	24.75

Source: Chief Town Planner

## APPENDIX 9.47

Assistance to Urban Local Bodies for Non-remunerative works (Plan Schemes) purpose wise, provided by the Director of Municipal Administration

(Rs. in lakhs)

Category/Purpose	Unit	Achievement					
		Upto 1979-80		1980-81		1981-82	
		Physical	Financial	Physical	Financial	Physical	Financial
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Office Building	No.	1	1.03	1	0.02	2	1.32
2. Town Hall		2	3.29	..	..	1	0.84
3. Roads		15	6.38	3	3.31	18	3.79
4. Drains		..	..	3	0.83	..	..
5. Culverts		..	..	..	..	..	..
6. Bridges		..	..	..	..	..	..
7. Library		1	0.77	..	..	..	..
8. Park		1	0.17	..	..	..	..
9. Playground		..	..	..	..	..	..
10. Stadium		1	1.56	1	1.84	..	..
11. E.S.P. Type Latrines		200	0.09	100	0.01	100	0.05
12. Others		..	..	..	..	..	..

Source: Director of Municipal Administration

## APPENDIX 9.48

Assistance to Urban Local Bodies for Non-remunerative works Plan Schemes—Agency-wise

(Rs. in Lakhs)

Name of Beneficiary Town/ Urban Local body	Unit	Achievement					
		Upto 1979-80		1980-81		1981-82	
		Physical	Financial	Physical	Financial	Physical	Financial
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Changanacherry	No. of Scheme	1	0.77	..	..	..	..
2. Kottayam		1	1.56	..	..	..	..
3. Palai		2	0.46	1	1.84	..	..
4. Pathanamthitta		2	1.75	..	..	..	..
5. Shertallai		1	0.23	..	..	..	..
6. Malappuram		1	2.00	1	1.00	1	3.00
7. Neyyattinkara		1	0.02	..	..	..	..
8. Palghat		1	0.65	..	..	..	..
9. Quilon		1	2.39	..	..	..	..
10. Trichur		1	0.90	..	..	..	..
11. Kothamangalam		1	0.17	1	0.16	..	..
12. Guruvayur Township		1	2.00	1	1.85	..	..
13. Chengannur		..	..	1	0.30	..	..
14. Muvattupuzha		..	..	1	0.02	1	1.01
15. Perumbavoor		..	..	1	0.01	1	0.94
16. Cannanore		..	..	..	..	1	0.31
17. Shornur		..	..	..	..	1	0.05
18. Attingal		..	..	..	..	1	0.84
19. Varkala		..	..	..	..	1	0.75
20. Nedumangad		..	..	..	..	1	0.10
21. Kasargod		1	0.39	1	0.51	..	..
22. Mavelikara		..	..	..	..	..	..
23. Chalakudy		..	..	..	..	..	..
24. Thiruvalla		..	..	..	..	..	..
25. Kayamkulam		..	..	1	0.32	..	..
<b>Total</b>		<b>15</b>	<b>13.29</b>	<b>9</b>	<b>6.01</b>	<b>8</b>	<b>7.00</b>

Source: Director of Municipal Administration

## APPENDIX 9.49

*Non-Plan Grant Assistance to Urban Local Bodies*

(Rs. in lakhs)

Category of Beneficiary Urban Local Body	Assistance Given During								
	Upto 1979-80			1980-81			1981-82		
	G.P.G.	S.P.G.	Total	G.P.G.	S.P.G.	Total	G.P.G.	S.P.G.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Corporations	18.80	18.66	37.46	8.83	21.82	30.65	13.90	22.35	36.25
2. Municipalities	28.67	11.57	40.24	25.59	13.39	38.98	26.60	20.43	47.03
3. Guruvayur Township	0.23	0.39	0.62	0.24	0.29	0.53	0.27	0.74	1.01
Total	47.70	30.62	78.32	34.66	35.50	70.16	40.77	43.52	84.29

Source: Director of Municipal Administration

Note: G.P.G.=General Purpose Grant

S.P.G.=Specific Purpose Grant

## APPENDIX 9.50

*Assistance to Urban Local Bodies for Implementing Slum Clearance Improvement Scheme (Plan Scheme)*

(Rs. in lakhs)

Name of Beneficiary	1979-80		1980-81		1981-82	
	No. of Schemes Assisted	Amount Spent	No. of Schemes Assisted	Amount Spent	No. of Schemes Assisted	Amount Spent
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Urban Local Body	5	10.00	13	65.00	14	65.00

Source:—Director of Municipal Administration

## APPENDIX 9.51

*Assistance to Urban Local Bodies for Execution of the programme under the Centrally Sponsored Scheme for Integrated Development of Small and Medium Towns (Plan Scheme)*

Name of Town	Unit	1979-80		1980-81		1981-82	
		Physical	Financial	Physical	Financial	Physical	Financial
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Guruvayur	No. of Schemes	7	10.00	..	..	..	40.00
Kottayam		3	8.80	..	..	..	36.00
Trichur		..	..	12	30.00	..	..
Kayamkulam		..	..	9	18.80	..	..
Tirur		..	..	5	25.20	..	22.00
Tellicherry		..	..	6	36.00	..	..
Changanacherry		..	..	7	22.00	..	2.00
Badagara		..	..	..	..	9	20.00
Malappuram		..	..	..	..	11	30.00
Total		10	18.80	39	132.00	20	150.00

Source: Director of Municipal Administration



## APPENDIX 9.52

*Urban Development Works (Schemes-wise) Assisted by Kerala Urban Development Financial Corporation—Remunerative Schemes*

Name of Scheme (1)	Upto 1979-80		1980-81		1981-82			
	No. of Works Assisted (2)	Amount (Rs. lakhs) (3)	No. of Works Assisted (4)	Amount (Rs. lakhs) (5)	No. of Works Assisted (6)	Amount (Rs. lakhs) (7)		
			Old	New			Old	New
1. Bunks	16	5.57	..	..	..	..	1	1.21
2. Shops, Stalls and Commercial Centres	57	181.89	..	..	..	..	1	3.00
3. Office Building/Shop-cum-Office Buildings	34	196.09	1	2	6.45	..	8	57.00
4. Bus/Lorry/Cart/Jetty Stands	40	167.75	3	..	57.34	4	2	58.63
5. Comfort Stations	4	1.55	..	1	1.00	..	..	..
6. ESP Type Latrines/Conversion of Dry Type Latrines into Sanitary Type/Pail Type Latrines into Flush out Latrines, etc.	6	17.15	4	2	7.75	5	6	26.32
7. Markets and Godowns	31	102.40	..	6	20.71	1	3	23.50
8. Fire Station Building	2	0.86	..	..	..	..	..	..
9. Town Halls	8	46.85	..	..	..	..	2	4.77
10. Rest House	10	79.89	..	..	..	..	1	9.50
11. Housing Schemes	4	20.06	..	..	..	1	..	10.00
12. Stadia	3	21.96	..	1	6.66	..	1	4.00
13. Slaughter Houses	6	24.61	..	1	1.00	1	1	5.17
14. Town Planning Schemes	11	377.50	..	2	40.00	..	..	..
15. Working Women's Hostel	2	6.77	..	..	..	..	1	1.21
16. Loans for House Connection Service for Water Supply	4	6.24	..	..	..	..	..	..
17. Lodges	7	19.18	..	..	..	..	1	2.00
18. Quarters for Commissioner	3	0.60	..	..	..	..	..	..
19. Purchase of Junker	1	8.26	..	1	11.00	..	..	..
20. Library Building	1	0.47	..	1	5.00	..	..	..
21. Purchase of Lorry	1	0.75	..	..	..	..	..	..
22. Electric Crematorium	1	3.50	..	..	..	..	..	..
23. Road Works	..	..	..	3	4.87	1	..	1.00
24. Electric Sub Stations	..	..	..	1	35.00	1	..	19.00
25. Repayment of Rural Development Board Loans	..	..	..	3	14.24	..	..	..
26. Purchase of Road Roller	..	..	..	1	2.00	..	..	..
27. Way Side Inn	..	..	..	..	..	..	..	..
28. Landing Plane	..	..	..	..	..	..	1	1.60
29. Canteen Building	..	..	..	..	..	..	..	..
	252	1289.90	8	25	213.02	14	29	227.91

Source: Kerala Urban Development Finance Corporation

## APPENDIX 9.53

*Urban Development Works (Agency-wise) assisted by the Kerala Urban Development Finance Corporation—Remunerative Schemes*

Name of Beneficiary Urban Local body	Upto 1979-80		1980-81		1981-82		Amount	
	No. of Works Assisted	Amount	No. of Works Assisted		No. of Works Assisted			
			Old	New	Old	New		
(1)	(2)	(3)	(4)	(5)	(6)	(7)		
<i>Town Planning Boards</i>								
1. Calicut Development Authority	5	28.17	..	2	10.70	2	..	20.00
2. Greater Cochin Development Authority	17	420.00	1	1	40.00	..	..	..
3. Trivandrum Development Authority	..	..	..	..	..	..	..	..
<i>Municipal Corporations</i>								
1. Calicut Corporation	18	76.99	2	..	9.00	2	..	18.00
2. Cochin Corporation	12	94.98	1	1	12.00	1	..	8.00
3. Trivandrum Corporation	6	29.09	..	..	..	..	2	24.00
<i>I Grade Municipalities</i>								
1. Alleppey Municipality	7	17.82	..	..	..	..	..	..
2. Cannanore	3	53.00	..	2	2.00	..	3	4.47
3. Changanacherry	6	16.42	..	..	..	..	1	0.20
4. Kottayam	10	55.49	..	..	..	1	..	3.50
5. Palghat	6	43.20	..	1	1.28	..	3	14.08
6. Quilon	11	43.84	..	2	11.66	..	..	..
7. Tellicherry	10	26.08	1	1	23.59	2	..	5.42
8. Trichur	11	64.38	..	1	35.00	1	2	26.00
<i>II Grade Municipalities</i>								
1. Alwaye	9	54.64	..	..	..	..	..	..
2. Badagara	11	21.40	..	..	..	..	1	7.00
3. Chalakudy	4	9.97	..	1	6.50	..	1	15.00
4. Irinjalakuda	12	17.29	..	..	..	..	1	4.40
5. Kasargod	3	4.50	..	..	..	..	..	..
6. Kunnankulam	2	16.28	..	..	..	..	1	0.28
7. Muvattupuzha	7	15.40	..	1	2.00	1	1	3.26
8. Palai	6	49.89	..	..	..	..	..	..
9. Perumbavoor	10	8.85	..	1	2.00	..	2	2.25
10. Punalur	6	6.98	1	1	3.00	1	1	12.50
<i>III Grade Municipalities</i>								
1. Angamaly	..	..	..	..	..	..	1	6.00
2. Attingal	7	3.06	..	1	3.05	..	1	4.00
3. Chittoor Thathamangalam	2	4.78	1	..	0.50	..	1	0.25
4. Kayamkulam	9	11.96	..	..	..	..	..	..

(1)	(2)	(3)	(4)		(5)	(6)		(7)
			Old	New		Old	New	
5. Chengannur	..	..	..	..	..	..	..	..
6. Kodungallur	..	..	..	3	9.49	..	1	5.00
7. Kothamangalam	2	7.67	..	..	..	..	1	10.00
8. Malappuram	5	16.44	..	1	2.87	1	1	5.09
9. Manjeri	..	..	..	..	..	..	..	..
10. Mavelikkara	6	5.49	..	..	..	..	..	..
11. Neyyattinkara	3	2.50	..	..	..	..	..	..
12. Perur	6	15.09	..	1	1.40	..	..	..
13. Pathanamthitta	2	7.65	..	..	..	..	..	..
14. Ponnani	..	..	..	1	2.14	..	..	..
15. Shertally	5	6.46	..	1	1.00	1	1	3.21
16. Shornur	..	..	..	1	10.61	..	..	..
17. Thiruvalla	3	5.38	..	1	0.23	..	..	..
18. Tirur	3	20.81	1	..	29.00	1	2	24.00
19. Vaikom	5	4.04	..	..	..	..	..	..
20. Guruvayur Township	2	3.75	..	..	..	..	..	..
21. Tripunithura	..	..	..	..	..	..	1	2.00
22. Nedumangad	..	..	..	..	..	..	..	..
23. Thodupuzha	..	..	..	..	..	..	..	..
24. Varkala	..	..	..	..	..	..	..	..
	252	1289.90	8	25	213.02	14	29	227.91

Source: Kerala Urban Development Finance Corporation

## APPENDIX 9.54

*Working result of the Kerala Urban Development Finance Corporation*

(Rs. in lakhs)

Details	Upto 1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)
1. Authorised Share Capital	100.00	100.00	100.00
2. Paid-up Share Capital:			
(a) Government	9.85	9.85	9.85
(b) Urban Local Bodies	9.31	9.31	9.31
3. No. of Share Holders Urban Local Bodies	49	49	49
4. Loans Disbursed to Urban Local Bodies			
(a) Amount disbursed	1289.90	213.06	227.91
(b) No. of beneficiary urban local bodies	37	23	35
5. Open Market Borrowing	1012.50	110.00	100.00
6. Profit/Loss*	19.90	2.93	2.84

\* Profit before Taxation and Appropriation

Source: Kerala Urban Development Finance Corporation

## APPENDIX 9.55

*Number of Broadcast Receiver Licences in India (Radio)*  
(As on 31-12-1979)

Name of Circle	Number of Licences
Andhra Pradesh	1,520,592
Bihar	672,970
Delhi	743,195
Gujarat	1,721,337
Jammu & Kashmir	159,411
Kerala	1,262,609
Karnataka	1,397,036
Maharashtra	2,736,381
Madhya Pradesh	93,971
North East	247,843
North West	1,663,522
Orissa	243,440
Rajasthan	958,052
Tamil Nadu	2,511,091
Uttar Pradesh	2,111,979
West Bengal	1,663,606
Army Postal Service	76,975
<b>Total</b>	<b>20,724,013</b>

## APPENDIX 9.56

*Number of Broadcast Receiver Licences in India*  
(Television)

(As on 31-12-1979)

Name of Circle	Number of Licences
Andhra Pradesh	17,798
Bihar	1,706
Delhi	264,881
Gujarat	7,504
Jammu and Kashmir	11,242
Kerala	63
Karnataka	418
Maharashtra	367,929
Madhya Pradesh	2,435
North East	21
North West	161,104
Orissa	923
Rajasthan	18,485
Tamil Nadu	76,604
Uttar Pradesh	128,815
West Bengal	89,873
Army Postal Service	1,510
<b>Total</b>	<b>1,151,311</b>

## APPENDIX 9.57

*Output of Feature Films in India*

Language	1951	1956	1961	1966	1971	1976	1977	1978	1979	1980
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Assamese	..	3	2	2	5	5	7	6	10	7
Bengal	38	54	36	30	30	32	31	37	37	37
Bhojpuri	..	..	..	..	1	..	2	1	2	3
Dogri	..	..	..	1	..	..	..	..	..	..
English	..	..	..	..	1	2	3	2	1	..
Gujarathi	6	3	7	2	3	29	30	32	38	34
Hindi	100	123	109	108	120	106	134	122	114	99
Kannada	2	14	12	21	33	45	49	59	95	68
Konkani	..	..	..	..	1	1	1	1	..	2
Malayalam	7	5	11	31	52	84	91	123	131	145
Manipuri	..	..	..	..	..	1	..	..	3	..
Marathi	16	13	15	12	23	10	19	15	19	28
Nepali	..	..	..	1	..	..	..	1	1	..
Oriya	..	2	2	2	1	6	11	15	11	15
Punjabi	4	..	5	4	2	10	12	8	15	6
Sindhi	..	..	..	1	1	..	..	..	..	..
Tamil	26	51	49	60	73	81	66	105	140	145
Telugu	20	27	55	41	85	93	99	94	133	152
Tulu	..	..	..	..	2	2	2	3	..	..
Total	219	295	303	316	433	507	557	619	714	742

## APPENDIX 9.58

## Number of Newspapers (State and Periodicity-wise) 1979-80

State/Union Territory	Dailies	Tri/Bi Weeklies	Weeklies	Fortnight- lies	Monthlies	Quarter- lies	Other periodicity	Annuals	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Maharashtra	152	20	544	196	883	295	122	103	2315
Uttar Pradesh	157	17	1186	239	573	122	57	6	2357
Delhi	45	1	294	223	981	354	113	22	2033
West Bengal	46	6	412	249	662	345	133	23	1876
Tamil Nadu	82	5	143	161	642	84	40	9	1166
Andhra Pradesh	55	3	347	162	323	46	27	4	967
Rajasthan	62	1	372	227	172	49	21	3	907
Kerala	96	1	126	101	496	55	29	11	915
Karnataka	93	4	207	141	320	64	32	2	863
Madhya Pradesh	85	8	331	50	113	26	13	3	629
Gujarat	34	3	163	82	274	37	29	3	625
Punjab	34	1	199	84	204	29	26	5	582
Bihar	31	5	231	68	107	33	10	1	486
Haryana	9	..	125	79	98	21	9	..	341
Orissa	11	..	37	23	122	43	13	6	255
Jammu and Kashmir	23	..	112	17	16	3	3	..	174
Chandigarh	10	..	31	18	50	32	14	3	158
Assam	6	3	46	23	31	13	10	1	133
Himachal Pradesh	..	..	23	13	27	8	8	..	79
Manipur	19	1	5	8	14	6	4	2	59
Tripura	13	1	38	4	3	1	1	..	61
Pondicherry	..	1	6	4	20	14	4	1	59
Meghalaya	1	4	18	4	10	5	3	..	45
Goa, Daman and Diu	8	..	8	3	15	6	2	..	42
Mizoram	13	1	12	1	4	1	1	..	33
Andaman and Nicobar	2	..	3	..	2	2	2	..	11
Nagaland	..	..	3	..	..	2	..	..	5
Dadra and Nagar Haveli	..	..	1	..	..	..	..	..	1
Total	1087	86	5023	2180	6162	1696	726	208	16659

## APPENDIX 9.59

*Number of Papers (Language-wise)*

Language	Dailies	Tri/bi weeklies	Weeklies	Others	Total 1978	Total 1977	Total 1979
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
English	95	7	345	2,638	3,085	2,892	3,288
Hindi	294	24	1937	1,941	4,196	3,736	4,610
Assamese	3	1	15	34	53	50	58
Bengali	31	9	312	786	1,138	1,003	1,259
Gujarati	36	3	154	441	634	618	674
Kannada	59	3	134	277	473	432	556
Kashmiri	..	..	1	..	1	1	1
Malayalam	96	..	90	423	609	567	697
Marathi	102	11	285	515	913	861	984
Oriya	10	..	23	135	168	151	205
Punjabi	21	1	139	188	349	312	375
Sanskrit	2	..	3	22	27	27	29
Sindhi	4	..	21	37	62	61	63
Tamil	60	1	104	538	703	653	755
Telugu	24	1	129	329	483	463	503
Urdu	103	6	563	458	1,130	1,047	1,180
Bilingual	23	12	300	943	1,278	1,194	1,362
Multilingual	5	2	61	236	304	276	335
Others	24	..	38	146	208	184	239
<b>Total</b>	<b>992</b>	<b>81</b>	<b>4,654</b>	<b>10,087</b>	<b>15,814</b>	<b>14,531</b>	<b>17,168</b>

## APPENDIX 9.60

*Circulation (Language and Periodicity-wise in 1978-79) ('000)*

Language	Dailies	Tri/bi Weeklies	Weeklies	Other Periodicals	Total
(1)	(2)	(3)	(4)	(5)	(6)
English	2,969	4	1,648	5,603	10,224
Hindi	2,997	51	3,327	5,033	11,408
Assamese	50	19	73	30	172
Bengali	823	13	685	1,302	2,823
Gujarati	1,019	36	654	868	2,577
Kannada	392	5	460	670	1,527
Malayalam	1,273	..	1,366	1,368	4,007
Marathi	1,239	13	475	808	2,535
Oriya	131	..	20	169	320
Punjabi	218	..	328	208	754
Sanskrit	2	..	1	12	15
Sindhi	19	..	45	20	84
Tamil	814	6	2,166	1,830	4,816
Telugu	470	15	494	809	1,788
Urdu	558	8	772	578	1,916
Bilingual	44	9	335	710	1,098
Multilingual	2	..	45	177	224
Others	13	17	30	101	161
<b>Total</b>	<b>13,033</b>	<b>196</b>	<b>12,924</b>	<b>20,296</b>	<b>46,449</b>



## APPENDIX 9.61

*Information and Publicity: Physical and Financial Achievement  
of the Public Relations Department*

Details	1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)
<b>I. Press Services</b>			
(i) No. of Press Tour Conducted	Information not available	1	1
<b>II. Publicity</b>			
1. Press Hand Outs issued (Nos.)	8000	8500	9000
2. Books Published (Nos.)	13	41	20
3. Journals Published (Nos.)	1	2	2
4. Exhibition Conducted (Nos.)	12	9	8
5. Community Listening sets issued (Nos.)			
(a) To Scheduled Castes (Nos.)	101	52	42
(b) To Scheduled Tribes (Nos.)			
6. No. of Information Centres	5	1	..
7. No. of Field Publicity Centres	3	..	..
8. No. of Rangasalas Established	1	..	..
<b>III. Advertisements etc.</b>			
1. No. of Display Advertisements	533	580	432
2. Special Issues in Newspapers Sponsored (Nos.)	13	13	8
3. Newspaper Supplements Sponsored (Nos.)	..	..	..
4. Total Expenditure on Advertisements (Rs. lakhs)	48.0	32.0	52.0
<b>IV. Films</b>			
1. Film Subsidy			
(a) No. of Films Shot Fully in Kerala	55	79	NA
(b) No. of Feature Films Given Subsidy	180	50	75
(c) Amount Disbursed (Rs. lakhs)	77.5	25	36.5

	(1)	(2)	(3)	(4)
2. Films Shows Organised (Nos.)		1350	1300	1200
3. Film Prints Received (Nos.)	..	..	..	..
4. Documentaries Produced (Nos.)		2	5	2
Documents Procured (Nos.)				
5. Total Cost of Documentaries Produced/Procured (Rs. lakhs)		1.35	1.50	2.00
6. Feature Films Produced/Procured (Nos.)				
(b) Total Cost of Feature Films Produced/Procured (Rs. lakhs)	..	..	..	..
<b>V. Cultural Programmes</b>				
1. No. of Malayalam Dramas Staged for Awards		29	21	15
(b) No. of Dramas for which Awards Given		12	13	15
2. No. of Films Screened for Award		26	28	28
(b) Details of Awards given		23	23	23
3. Cultural Functions Organised (Nos.)		25	30	3
<b>VI. Welfare Programmes</b>				
1. Pension to Cine Artistes				
(a) No. of Applications Received for Pension		56	68	81
(b) No. of Persons Granted Pension		56	68	81
(c) Rate of Pension (Rs.) Ranges from Rs. 100 to Rs. 300 p.m.				
(d) Amount Disbursed (Rs. lakhs)		2.9	1.4	1.5
2. Welfare Fund for Journalists				
(a) No. of Persons Granted Pension		64	109	118
(b) Rate of Pension (Rs.) Ranges from Rs.100-250 p.m.				
(c) Amount Disbursed (Rs. lakhs)		1.33	2.11	2.44
<b>VII. Expenditure</b>				
1. Total Expenditure on Information and Publicity				
(a) Plan (Rs. lakhs)		28.9	19.58	44.00
(b) Non-Plan (Rs. lakhs)		22.1	57.65	83.18

## APPENDIX 9.62

*District-wise Scheduled Caste/Scheduled Tribe Population of Kerala—1981*

District	S.C. Population	Percentage	S.T. Population	Percentage
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	284279	11.15	14145	5.41
2. Quilon	347567	13.63	7442	2.85
3. Alleppey	235423	9.23	3273	1.25
4. Kottayam	119377	4.68	15227	5.82
5. Idukki	133177	5.22	38712	14.81
6. Ernakulam	216443	8.49	3551	1.36
7. Trichur	302085	11.85	3227	1.23
8. Palghat	376424	14.77	7955	3.04
9. Malappuram	208018	8.16	29784	11.01
10. Kozhikode	161715	6.34	3888	1.49
11. Wynad	21130	0.83	9557	36.55
12. Cannanore	143744	5.64	39704	15.18
<b>Kerala</b>	<b>2549382</b>	<b>100.00</b>	<b>261475</b>	<b>100.00</b>

Source: Directorate of Census Operations, Trivandrum.

## APPENDIX 9.63

*District-wise Distribution of Kerala's S.C./S.T. Population with Urban-Rural Classification, 1981*

State/District	Population		
	S.C.	S.T.	
(1)	(2)	(3)	
1. Trivandrum	T	284279	14145
	R	225214	13988
	U	59065	757
2. Quilon	T	347567	7442
	R	316868	6812
	U	30699	630
3. Alleppey	T	235423	3273
	R	217328	2536
	U	18095	737
4. Kottayam	T	119377	15227
	R	109601	15054
	U	9776	179
5. Idukki	T	133177	38712
	R	130690	38263
	U	2487	449
6. Ernakulam	T	216443	3551
	R	157602	1855
	U	58841	1696

	(1)	(2)	(3)
7. Trichur	T	302085	3227
	R	259520	3195
	U	42565	32
8. Palghat	T	376424	28794
	R	351169	28720
	U	25255	74
9. Malappuram	T	208018	7955
	R	197280	7937
	U	10738	18
10. Kozhikode	T	161715	3888
	R	134989	3768
	U	26726	120
11. Wynad	T	21130	95557
	R	21130	95557
	U	..	..
12. Cannanore	T	143744	39704
	R	118620	39400
	U	25124	304
Kerala	T	2549382	261473
	R	2240011	256485
	U	309371	4990

T—Total

R—Rural

U—Urban

Source: Directorate of Census Operations, Trivandrum.

## APPENDIX 9.64

*District-wise S.C./S.T. Students in Various Government/ Private Schools in 1981-82*

District	S.C. Students	S.T. Students	Total
(1)	(2)	(3)	(4)
1. Trivandrum	78057	3270	81327
2. Quilon	103639	1347	104986
3. Alleppey	71280	606	71886
4. Kottayam	45959	3736	49695
5. Idukki	32727	7028	39755
6. Ernakulam	60102	918	61020
7. Trichur	71519	556	72075
8. Palghat	56205	2133	58338
9. Malappuram	43878	931	44809
10. Kozhikode	44676	14482	59158
11. Cannanore	28893	6308	35201
<b>Total</b>	<b>636935</b>	<b>41315</b>	<b>678250</b>

Source: Directorate of Public Instruction, Trivandrum.

## APPENDIX 9.65

*District-wise SC/ST Students in Various Government/Private Colleges in 1981-82\**

District (1)	Pre-degree		Degree		Post-graduate		Grand Total	
	S.C. (2)	S.T. (3)	S.C. (4)	S.T. (5)	S.C. (6)	S.T. (7)	S.C. (8)	S.T. (9)
1. Trivandrum	2104	115	586	27	41	10	2731	152
2. Quilon	2311	15	364	1	15	..	2690	16
3. Alleppey	1763	15	364	1	15	..	1955	16
4. Kottayam	1816	256	571	61	40	3	2427	320
5. Idukki	124	63	24	16	..	..	148	79
6. Ernakulam	2140	127	536	77	75	7	2751	211
7. Trichur	1748	40	442	20	31	..	2221	60
8. Palghat	843	17	210	4	10	..	1063	21
9. Malappuram	562	..	86	..	12	..	660	..
10. Kozhikode	957	16	269	3	18	..	1244	37
11. Wynad	49	48	12	4	..	..	61	62
12. Cannanore	963	654	159	27	9	..	1149	681
Kerala	15380	801	3805	243	253	20	19133	1064

*Note:*—No. of Students in the Following Colleges are not Included in the Table:—

1. University College, Trivandrum.
  2. Government Colleges, Quilandy/Mokeri, Elerithethumal, St. Gregorious College, Kottarakara and M. S. M. College, Kayamkulam.
- \* Provisional

*Source:* Directorate of Collegiate Education, Trivandrum.

## APPENDIX 9.66

*Number of Registrants of S. C. and S. T. with the Employment Exchanges in Kerala (30-9-1982)*

Category (1)	Scheduled Castes (2)	Scheduled Tribes (3)	Total (4)
1. Below S.S.L.C.	102560	3756	106316
2. S.S.L.C./Matriculate	47996	2750	50746
3. P.U.C./P.D.C. etc.	4388	137	4525
4. Graduate	1429	34	1463
5. Post-graduates	67	4	71
Total	156440	6681	163121

*Source:* Directorate of Employment, Trivandrum.

## APPENDIX 9.67

*Expenditure Under Special Component Plan for Scheduled Castes—1980-81 to 1982-83*

Head of Development	1980-81 Expenditure Rs. lakhs	1981-82 Expenditure Rs. lakhs	1982-83 (Outlay) Rs. lakhs
(1)	(2)	(3)	(4)
1. Agriculture	76.39	69.20	88.30
2. Land Reforms	2.26	15.74	25.50
3. Minor Irrigation	20.04	39.37	50.00
4. Soil Conservation	25.36	8.53	23.00
5. Special Area Programme for Rural Development	153.88	36.63	190.00
6. Animal Husbandry	14.49	20.92	28.75
7. Dairy Development	0.32	8.83	11.05
8. Fisheries	0.26	1.89	37.00
9. Forests	18.12	..	4.00
10. Community Development and Panchayats	39.08	8.84	165.00
11. Co-operation	40.26	76.43	66.00
12. Power	46.56	142.04	240.00
13. Village and Small Scale Industries	45.80	53.43	79.001
14. Roads	202.10	144.69	113.72
15. General Education	7.35	11.98	20.50
16. Technical Education	0.30	2.24	5.50
17. Health	17.25	14.88	28.90
18. Sewerage and Water Supply	122.67	219.10	172.00
19. Housing	80.71	143.13	176.50
20. Urban Development	35.00	65.00	65.00
21. Information and Publicity	0.25	0.20	0.15
22. Labour and Labour Welfare	72.04	2.78	5.30
23. Social Welfare	1.65	5.86	0.90
24. Nutrition	24.67	53.99	175.40
25. Welfare of Scheduled Castes Scheduled Tribes and other Backward Classes	289.41	292.64	266.80
<b>Total</b>	<b>1336.22</b>	<b>1615.71</b>	<b>2038.271</b>

## APPENDIX 9.68

*Physical Achievements Under Special Component Plan for Scheduled Castes—1980-81 to 1982-83*

Head of Development	Unit	1980-81 Achievement	1981-82 Achievement	1982-83 Target
(1)	(2)	(3)	(4)	(5)
1. Agriculture	No. of Families	105582	65192	29400
2. Land Reforms	No. of Beneficiaries	361	1500	1500
3. Minor Irrigation	No. of Works	16	5	80
4. Soil and Water Conservation	do.	76	81	..
5. Special Area Programme for Rural Development I. R. D.	No. of Families	10817	18594	36720
6. Animal Husbandry				
(i) Poultry Distribution	Nos.	31580	4424	5300
(ii) Distribution of Goats	do.	614	1000	600
(iii) Distribution of Cross Bred Cows/ Heifers	do.	75	1025	650
7. Dairy Development	No. of Families	850	9006	16410
8. Fisheries	do.	108	221	3062
9. Forests	do.	1500	..	750
10. Community Development	do.	39,000	54210	42560
11. Co-operation				
(i) No. of Harijan Societies	Nos.	132	206	257
(ii) No. of Families	..	17114	21253	31000
12. Power Development—Colonies/ Settlements Electrified	Nos.	239	448	200
13. Village and Small Scale Industries	No. of Beneficiaries	637	950	7500
14. Harijan Entrepreneurs assisted	Nos.	1450	494	500
14 A. Roads and Bridges	No. of Works	140	132	350
15. General Education	No. of Beneficiaries	19000	4600	7200
16. Technical Education	do.	496	700	800
17. Medical, Public Health and Sanitation	Hospitals/Dispensaries Opened No.	7	14	5
18. Sewerage and Water Supply	No. of Colonies Provided with Water Supply	35	68	150
E. S. P. Type Latrine	Nos.	4500	4300	5000
19. Housing	No. of Families	230	3850	6780
20. Labour and Labour Welfare	do.	150	250	300
21. Welfare of Scheduled Castes, Scheduled Tribes and other Backward Classes				
(i) Education	No. of Beneficiaries	22429	22076	14650
(ii) Economic	do.	24550	19102	10805
(iii) Others	do.	5300	4500	7575

## APPENDIX 9.69

*Surplus Land Distributed to Scheduled Castes as on 28-2-1982*

District	Total Beneficiaries		Scheduled Caste Beneficiaries	
	Extent	No. of Beneficiaries	Extent	No. of Beneficiaries
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	334.53	3406	189.58	1665
2. Quilon	1503.01	4505	747.87	2247
3. Alleppey	3875.47	6307	1889.38	3147
4. Kottayam	3373.32	4202	1163.45	2031
5. Idukki	2771.74	3092	1056.85	1154
6. Ernakulam	930.76	4104	626.79	2539
7. Trichur	2885.91	12282	1112.48	4380
8. Palghat	9765.46	13054	4226.73	5880
9. Malappuram	5437.28	8118	2289.04	3797
10. Kozhikode	1727.76	4852	817.44	2143
11. Wynad	2571.91	3894	315.39	570
12. Cannanore	17531.52	17382	4344.67	4708
Total	52708.67	84928	18779.67	34261

## APPENDIX 9.70

*Poramboke Lands Assigned to Scheduled Castes/Scheduled Tribes as on 28-2-1982*

District	Total Beneficiaries		S.C./S.T. Beneficiaries	
	Extent Hectares	No. of Families	Extent Hectares	No. of Families
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	8884	34671	1473	6105
2. Quilon	23822	102736	2945	19670
3. Alleppey	1583	16080	190	3433
4. Kottayam	2939	10266	817	3335
5. Idukki	61305	119341	7233	9306
6. Ernakulam	9312	49150	2228	15910
7. Trichur	10800	51247	1625	10394
8. Palghat	301	1811	71	513
9. Malappuram	755	3118	325	203
10. Kozhikode	30	206	15	60
11. Wynad	12638	26704	1821	3239
12. Cannanore	37100	77606	7046	15185
Total	169469	492936	25789	87353

## APPENDIX 9.71

*Flow of Fund and Expenditure to Harijan Welfare Department During 1981-82*

Item	Budget Provision	Expenditure
(1)	(2)	(3)
<b>I. State</b>		
(i) State Sector Plan Scheme	313.803	294.516
(ii) Do. State Share for Centrally Sponsored Scheme	11.000	3.100
(iii) Do. Kerala State Development Corporation	75.000	75.000
<b>II. Centre</b>		
(i) Centrally Sponsored Scheme 100%	60.000	59.952
(ii) Centre Share for Centrally Sponsored Scheme	11.000	3.000
(iii) Special Central Assistance	16.900	17.300
<b>III. Non Plan Scheme</b>		
	1187.791	1198.134
Total	1675.496	1651.002 (98.54%)

Source: Directorate of Harijan Welfare Department, Trivandrum.

## APPENDIX 9.72

*Physical and Financial Achievement of Development Corporation for S.C./S.T. during 1981-82*

Name of the Scheme	No. of Beneficiaries	Amount (Rs. in lakhs)
(1)	(2)	(3)
1. Small Business, Trade and Industry	1176	50.24
2. Agricultural Land Purchase Scheme	558	35.18
3. Assistance to Co-operative Society	1	0.80
4. Margin Money for Mini-Industrial Estate	1	0.14
5. Margin Money for Bankable Schemes	477	2.14
6. Foreign Employment Scheme	706	38.11
7. Supply of Sewing Machines	1939	28.75
8. Housing Scheme No. II (10,000 Houses)	423	2.95
9. Housing Scheme No. III (Harijan Employees engaged in Unclean Occupation in the Calicut Corporation)	1	0.32
10. Housing Scheme No. IV (10,000 Houses)	5533	321.53

## APPENDIX 9.73

*Tribal Sub Plan for Scheduled Tribes in Kerala Expenditure and Physical Achievement 1981-82*

Head of Development	Outlay for S.Ts. (Rs. lakhs)	Expenditure upto March 1982	Physical Achievement 1981-82
(1)	(2)	(3)	(4)
1. Agriculture	17.66	20.972	140 S.T. Colonies and 889 S.T. Families Benefited
2. Soil and Water Conservation	10.00	36.860	14
3. Animal Husbandry	11.14	9.952	6447
4. Dairy Development	3.90	3.410	90 Cows Distributed. 90 Sheds. 100 S.Ts. Trained in Dairy Production
5. Forest	35.50	14.501	87968
6. Community Development	15.98	14.843	472
7. Co-operation	14.50	32.670	102/12577 Persons
8. Power	65.00	28.060	33
9. Industries	5.68	6.350	1 Society Benefited. 109 Persons Benefited
10. Roads and Bridges	39.00	43.760	19 Works
11. Health	14.10	6.702	3
12. General Education	17.50	15.203	..
13. Sewerage and Water Supply	40.00	..	8 Schemes 524 E.S.P. Latrines Distributed.
(i) P.H.E.D.	..	31.270	
(ii) Development Department	..	1.832	
14. Welfare of Scheduled Tribes	97.20	90.719	746 Families
15. Social Welfare	1.50	2.450	6000
16. Nutrition	16.40	11.240	610 Feeding Centres
Total	470.26	370.791	

## APPENDIX 9.74

*Special Central Assistance for Sub-Plan Schemes 1974-75 to 1981-82*

Year	Amount Allotted (Rs.)	Amount Spent (Rs.)
(1)	(2)	(3)
1974-75	2.50	1.45
1975-76	15.00	15.52
1976-77	26.00	24.61
1977-78	25.00	21.97
1978-79	26.00	31.89
1979-80	21.24	20.87
1980-81	66.90	64.82
1981-82	48.00	49.98
1982-83	55.00	NA

## APPENDIX 9.75

*Selected Physical Achievements of the Social Welfare Department*

Institutions	1979-80		1980-81		1981-82	
	No. of Institutions	No. of Beneficiaries	No. of Institutions	No. of Beneficiaries	No. of Institutions	No. of Beneficiaries
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>I. Departmental Institutions</i>						
1. Abalamandir	10	204	10	211	10	234
2. After Care Home	6	226	6	213	6	224
3. Rescued Home	3	163	3	174	3	168
4. Shelter for Wiafs & Strays	2	139	2	141	2	145
5. Home for Physically Handicapped	5	73	5	113	5	80
6. Home for Mentally Deficient Children	2	37	2	28	2	40
7. Children's Home	1	33	1	31	1	30
8. Custodial Care Home	1	10	..	..	..	..
9. Working Women's Hostel	4	85	4	128	4	140
10. Working Men's Hostel	2	52	2	51	2	60
11. I.C.D.S. Projects (a) Central	13	93306	18	111202	23	193007
(b) State	..	..	..	..	..	..
12. Day Care Centres	20	1000	30	1500	30	1500
13. After Care Home for Women	1	12	1	9	1	15
14. Vocational Training Centres	2	100	2	98	2	100
15. Care Home for Disabled Children	2	47	2	43	4	45
16. Creches	..	..	..	..	..	..
17. Nurseries/Balwadis	..	..	..	..	..	..
18. Others	..	..	..	..	..	..
<i>II. Voluntary Organisations</i>						
1. Orphanages—Total						
(a) Orphanages in Receipt of Grants	252	19759	294	23721	294	23725
(b) Orphanages not in receipt of grant	..	..	..	..	..	..
2. Home for Aged and Infirm	..	..	..	..	..	..
3. Foundling Home	4	390	5	440	5	440
4. Beggar Home	..	..	..	..	..	..
5. Creches	188	7520	275	11000	275	11000
6. Nurseries/Balwadis	..	..	..	..	..	..
7. Day Care Centres	..	..	..	..	..	..
8. Others	..	..	..	..	..	..



## APPENDIX 9.76

## Financial Achievement of the Social Welfare Department

(Rs. in lakhs)

Particulars (1)	Achievements								
	1979-80			1980-81			1981-82		
	Plan (2)	Non-Plan (3)	Total (4)	Plan (5)	Non-Plan (6)	Total (7)	Plan (8)	Non-Plan (9)	Total (10)
1. Administrative Expenses of the Department	1.25	2.51	3.76	4.55	2.77	7.32	5.00	3.00	8.00
2. Expenses for Running the various Departmental Institutions (Institution-wise)	1.76	23.47	25.23	0.66	23.84	24.50	2.00	24.00	26.00
3. Assistance Given to Voluntary Organisations									
(i) Orphanages	2.74	82.10	84.84	10.05	100.93	110.98	20.00	110.00	130.00
(ii) Home for Aged and Infirm	..	7.51	7.51	..	9.99	9.99	N.A.	10.00	10.00
(iii) Foundling Homes@	..	..	..	..	..	..	..	..	..
(iv) Beggar Homes	..	0.46	0.46	..	1.19	1.19	N.A.	1.50	1.50
(v) Industrial Assistance to Women's Welfare Organisations	..	..	..	3.28	..	3.28	2.15	..	2.15
(vi) Assistance Given to Organisations for Starting Creches/Nurseries	1.84	..	1.84	3.00	..	3.00	3.00	..	3.00
(vii) Day Care Centre	..	2.10	2.10	..	3.58	3.58	..	4.02	4.02
(viii) World Food Programme	..	13.95	13.95	..	12.83	12.83	..	14.00	14.00
(ix) Production Centres for Disabled	0.39	..	0.39	0.10	..	0.10	0.10	..	0.10
(x) Special Nutrition Programmes	34.17	47.99	82.16	55.60	43.63	99.23	96.00	135.12	231.12
4. Assistance Extended to Individual (Category-wise)									
(i) Grants to Persons Contracting Inter-caste Marriage	..	1.50	1.50	..	1.50	1.50	..	1.50	1.50
(ii) Self Employment Programme for Disabled	1.00	..	1.00	1.00	..	1.00	1.50	..	1.50
(iii) Scholarship for Mentally Retarded Children	..	..	..	0.10	..	0.10	0.15	..	0.15
(iv) Premetric Scholarship	1.15	..	1.15	14.86	..	14.86	15.00	..	15.00
(v) Assistance for Special Aid Appliances	0.71	..	0.71	2.00	..	2.00	2.00	..	2.00
(vi) T.A. for Interview	..	0.04	0.04	..	0.04	0.04	..	0.04	0.04
(vii) Self Employment Scheme for Women (Widows, Deserted Women etc.)	5.00	..	5.00	5.00	..	5.00	1.25	..	1.25
(viii) Others (specify) Extension of Financial Assistance to Ex-convicts and Probationers	0.25	..	0.25	0.10	..	0.10	0.10	..	0.10
	50.26	181.61	251.87	100.30	200.30	300.60	148.25	303.18	451.43

@Expenditure included under Orphanages.

Source:—Social Welfare Department

## APPENDIX 9.77

*Social Welfare Programmes of the Social Welfare Advisory Board*

Details	1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)
<b>I. Programmes for Children</b>			
<b>1. Assistance for Holiday Camps for Children</b>			
(a) No. of Camps Conducted	96	109	48
(b) No. of Participants	4800	5450	2400
(c) Assistance Given (Rs. 1000)	324	347	215
<b>2. Assistance to Creches</b>			
(a) No. of Creches Assisted	120	119	139
(b) No. of Children Benefited	3000	2975	3879
(c) Assistance Given (Rs. 1000)	630	624	683
<b>3. Assistance to Balawadis</b>			
(a) No. of Balawadis Assisted	320	271	213
(b) No. of Children Benefited	9305	9005	8950
(c) Assistance Given (Rs. 1000)	314	360	305
<b>4. Assistance for Supplementary Nutrition for Children in Creches and Balawadis</b>			
(a) No. of Balawadis/Creches Assisted	135	121	110
(b) No. of Children Benefited	4050	3750	3550
(c) Assistance Given (Rs. 1000)	388	298	219
<b>II. Programmes for women</b>			
<b>5. Condensed Course for Education for Adult Women of Age Group 18-30</b>			
(i) No. of Organisations Assisted	77	153	158
(ii) No. of Women Benefited	1818	2950	3180
(iii) Assistance Given (Rs. 1000)	822	134	1330
<b>6. Assistance to Working Women's Hostels</b>			
(i) No. of Hostels Assisted	15	14	14
(ii) Assistance Given (Rs. 1000)	42	40	40
<b>III. Socio-Economic Programmes for employment &amp; income Generation to Low Income Groups</b>			
(i) No. of Organisations Assisted	52	48	40
(ii) No. of programmes Assisted (category-wise)—Dairy Production	26	33	30
(iii) No. of Women Benefited	1443	1324	1600

## APPENDIX 9.78

*Child Welfare Programmes: Physical and Financial Achievements of the Kerala State Council for Child Welfare*

Details	Unit Nos.	1979-80	1980-81	1981-82
(1)	(2)	(3)	(4)	(5)
<b>Training Programme</b>				
1. No. of Balasavika Training Institutes Functioning	..	3	3	3
2. No. of Persons Trained	..	165	168	155
<b>II. Assistance to Balavadies</b>				
1. No. of Balavadies Assisted	..	55+4	55+4	55+4
2. No. of Creches Assisted	..	22	40	62
<b>III. Balavadi-cum-Creches run by the Council</b>				
1. No. of Children	..	1	1	1
2. In Balavadi Section	..	30	40	40
3. In Creches Section	..	20	25	25

Source: Kerala State Council for Child Welfare

## APPENDIX 9.79

*Selected Physical Achievements of the Prisons Department*

Institutions	1978-79		1979-80		1980-81		1981-82 (Actuals)	
	No. of Institutions	No. of Beneficiaries	No. of Institutions	No. of Beneficiaries	No. of Institutions	No. of Beneficiaries	No. of Institutions	No. of Beneficiaries
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Borstal Schools for Girls, Calicut	1	200	2	205	2	210	2	210
2. Industrial Training Units in Balamandirs and Juvenile Delinquents trained	5	148	5+2	210	6+1	210	6+1	210
3. The Childrens Courts (State-wide Schemes)	1	..	10	..	10	..	11	..
4. Welfare Officers in Prisons (New)	4	1133	6	1147	6	1273	6	NA
5. No. of Central Jails and Prisons	3	1316	3	1147	3	1273	3	NA
6. No. of Sub Jails and Prisons	32	871	32	960	32	1176	32	NA

Source: Prisons Department

*Salient Features of the Toddy Workers Welfare Fund*

I	No. of Registered Workers in the Fund as on 30-9-1981	35,338
II	No. of Unregistered do.	7,491
III	Assessment of Welfare Fund Total Amount Assessed as on 30-9-1981	Rs. 2,006.08 lakhs
IV	Recovery of Amount Assessed Total Recovery as on 30-9-1981	1,748.327 ,,
	Balance to be Recovered	257.76 ,,
V	Collection of Welfare Fund Total Collection as on 30-9-1981	1,989.94 ,,
VI	Irrecoverable Amounts Irrecoverable Amounts Reported by R.R. Authorities as on 30-9-1981	65.95 ,,
VII	(a) Final Payment of P.F. Total Payments during the Period from 4/81 to 9/81	13.79 ,,
	(b) Residual Balance Payments during the Period from 4/81 to 9/81	8.91 ,,
	(c) Gratuity do.	6.89 ,,
VIII	Advance from the P.F. Total Payments for H.B.A. as on 30-9-1981	138.43 ,,
	Do. Treatment do.	25.56 ,,
	Do. Marriage of Daughters of Toddy Workers as on 30-9-1981	3.506 ,,
	Do. Education of Children of Toddy Workers as on 30-9-1981	0.87 ,,
IX	Funds	
	1. Investment in Fixed Deposits	1467.779 ,,
	2. Loans to other Institutions (Date as on 30-9-1981)	
	(i) Kerala Health Research and Welfare Society	122.50 ,,
	(ii) Kerala State Industrial Enterprises Ltd.	100.00 ,,
	(iii) Kerala Agro Machinery Corporation	100.00 ,,
	(iv) Kerala State Film Development Corporation	15.50 ,,
	(v) Travancore Rayons	85.00 ,,
	(vi) Kerala State Housing Board	175.00 ,,
	Sub Total (2)	598.00 lakhs

Source: Chief Welfare Fund Inspector