

GOVERNMENT OF KERALA

ECONOMIC REVIEW
1979

STATE PLANNING BOARD
TRIVANDRUM

CONTENTS

PAGES

| | |
|---|-----------------|
| <p>Chapter 1—GENERAL REVIEW</p> <p>Trends in National Economy (1); Trends during the year 1979-80 (2); Trends in Kerala's Economy (2); Income and Employment (3); Agricultural Production (3); Food Situation (3); Land Reforms (4); Livestock Development (4); Fisheries (4); Forests (4); Irrigation and Power (5); Industry (5); Transport & Communications (6); Education (7); Health (7); Water Supply (8); Housing (8); Welfare of Scheduled Castes and Other Backward Classes (8); Export Trade (9); Science and Technology (9).</p> | <p>.. 1—9</p> |
| <p>Chapter 2—INCOME AND EMPLOYMENT</p> <p>State Income (10); Per capita Income (10); Sector-wise Distribution of Income (10); Per Capita Income of States (11); District Income of Kerala (11); Population (13); Birth and Death Rates (13); Employment Situation (13); Employment Exchange Statistics (14); Professional and Technical Work Seekers (14); Employment in the Organised Sector (15); Placings through Employment Exchanges (15); Overseas Development and Employment Promotion Consultants Limited, Trivandrum (15); The Kerala Institute of Labour and Employment (16).</p> | <p>.. 10—16</p> |
| <p>Chapter 3—PRICES AND COST OF LIVING</p> <p>Consumer Price Index—All India (18); Price Situation in Kerala (19); Wholesale Price Index of Agricultural Commodities (19); Retail Prices of Essential Commodities (19); Consumer Price Index (20); Parity Index (21); Food Situation (22); Kerala State Civil Supplies Corporation (23); Procurement of Paddy (23).</p> | <p>.. 17—23</p> |
| <p>Chapter 4—AGRICULTURE</p> <p>Crop Production (24); Farm Commodity Prices (25); Farm Input Prices (25); Climate (25); Land Use (26); Area Under Crops (26); Production of Crops (27); Productivity of Crops (28); Rice Production (28); High Yielding Varieties of Rice (29); Development Programmes (29); Kerala Agricultural Development Project (31); Kerala State Coconut Development Corporation (32); Kerala Agro Industries Corporation (32); Kerala State Warehousing Corporation (32); Plantation Corporation of Kerala (34); Small Farmer Development Programme (34); Soil Conservation (35); Soil Survey (35); Land Use Board (35); Kerala Land Development Corporation (36); Agricultural Marketing (36); Wynad Development (36); Agricultural Credit (36); Long Term Credit (37); Kerala Agricultural University (38); Central Tuber Crops Research Institute (39); Central Plantation Crops Research Institute (39); Farm Information Bureau (39); Plantations (40); Rubber (40); Tea (41); Coffee (42); Cardamom (42); Land Reforms (43); Livestock Development (44); Fisheries (46); Marine Fish Production (46); Inland Fisheries (48); Exports (48); Kerala Fisheries Corporation (48); Refrigeration Facilities (49); Fishermen Co-operatives (49); Fishermen Population and Fishing Craft (49); Kerala Fishermen's Welfare Corporation (49); Forests (50).</p> | <p>.. 24—51</p> |
| <p>Chapter 5—IRRIGATION AND POWER</p> <p>Irrigation (52); Major and Medium Irrigation Projects (52); Minor Irrigation (53); Flood Control and Anti-sea Erosion (54); Power (54); Generation (55); Edamalayar Hydro Electric Scheme (56); Idukki Stage III (56); Sabarigiri Augmentation (56); Silent Valley Hydro-Electric Scheme (56); Kakkad Hydro-Electric Scheme (57); Idukki Stage II (57); Lower Periyar Hydro-Electric Scheme (57); Kuriarkutty-Karappara Hydro-Electric Scheme (57); Survey and Investigation (57); Transmission (57); Distribution and Rural Electrification (58); Power Consumption and Revenue Realised (59); Financial Position of the Kerala State Electricity Board (59).</p> | <p>.. 52—59</p> |

| | |
|---|----------|
| Chapter 6—INDUSTRY | .. 60—83 |
| An Overview (60); Joint Stock Companies (61); Working Factories (61); Large and Medium Industries (62); Government Owned Companies (62); Steel Industrials, Kerala Limited (64); Malabar Cements (64); Government Majority Concerns (65); Kerala State Industrial Development Corporation (66); Kerala State Electronics Development Corporation (67); Kerala State Textile Corporation (68); Kerala State Industrial Products Trading Corporation (69); Government of India Concerns (69); Traditional Industries (72); Coir Industry (72); Cashew Industry (74); Kerala State Cashew Development Corporation (75); Handloom Industry (75); Kerala State Handloom Development Corporation (77); Small Scale Industries (77); Small Industries Development and Employment Corporation (78); Kerala Financial Corporation (79); Khadi and Village Industries (81); Beedi Industry (82); Mining (82). | |
| Chapter 7—TRANSPORT AND COMMUNICATIONS | .. 84—91 |
| An Overview (84); Roads (84); Road Transport (85); Motor Vehicles Registration (85); Road Accidents (85); Passenger Transport (86); Goods Transport (87); Railways (87); Air Transport (88); Inland Navigation (88); Ports and Harbours (89); Cochin Port (90); Communications (91). | |
| Chapter 8—EXPORT IMPORT TRADE | .. 92—96 |
| India's Foreign Trade (92); Kerala's Exports (92); Marine Products (93); Spices (93); Pepper (93); Ginger (94); Turmeric (94); Cardamom (94); Cashew Kernels (94); Cashew Shell Liquid (95); Import of Raw Cashew Nuts (95); Coir and Coir Products (95); Coffee (95); Tea (96); Imports (96). | |
| Chapter 9—SOCIAL SERVICES | .. 97— |
| Education (97); General School Education (97); Higher Education (General) (98); Professional and Special Education (98); Expenditure on Education (99); Science and Technology (99); Health (99); Allopathy (99); Indian System of Medicine (100); Homoeo (100); Medical Practitioners (100); Family Welfare (101); Water Supply (102); Housing (102); Urban Development (105); Information and Publicity (106); Press Academy (106); Publicity (106); Film Subsidy and Film Shows (106); Cultural Programmes (107); Welfare of Scheduled Castes and Other Backward Classes (107); Welfare of Scheduled Tribes (108); Social Welfare (109); Child Welfare (109); Women's Welfare (110); Welfare of Physically Handicapped (111); Welfare of Maladjusted Groups (111); Protection and Care of Orphans, Destitutes and the Aged and Infirm (112); Nutrition Programmes (112). | |

CHAPTER I

GENERAL REVIEW

Trends in National Economy

The 1970-80 decade

The year 1979-80 being the terminal year of the second development decade, it may be appropriate to briefly indicate a broad over-view of the trends in the major sectors of the economy over the last ten years. India's population which stood at 540 million in 1970-71 is estimated to have increased to 650 million by 1979-80 representing an annual growth rate of 2.1 per cent. During the same period, national income in real terms grew at an average annual rate of 2.5 per cent. In terms of per capita real income, the annual rate of increase was, however only 0.3 per cent.

1.2 Though the country's food production during the decade touched a record figure of 131 million tonnes in 1978-79, the significant fall in production in 1979-80 to an estimated 118 million tonnes would imply an average annual rate of growth of only 1 per cent during the decade. This slow pace may essentially be attributed to the poor performance of kharif food-grains, which after touching a peak level in 1977-78 and 1978-79 slumped substantially during 1979-80. While industrial production showed signs of pick-up during the middle of the seventies, the rate of growth in the latter half of the decade has not been quite satisfactory, with the result that over the ten year period, this sector could register only an average annual production increase of 4.6 per cent. A major factor accounting for this slow pace has been the decline in the rate of utilisation of installed capacity. The utilisation rate which was 83.4 per cent in 1970-71 declined to 76.7 per cent by 1979-80.

1.3 To mention certain specific industries, while cement production recorded an annual increase of 3.1 per cent and coal production 4 per cent, saleable steel production increased by 5.5 per cent and output of engineering industries grew at an average rate of 6.4 per cent. These growth rates cannot be considered as adequate for a country like India where the requirements of economic development would warrant a much larger rate of growth in such vital industrial sectors.

1.4 One redeeming feature, however, has been the break-through initiated in crude oil production. Though there is still a sizeable gap between domestic production and actual requirements, there has been a marked step up of internal production from 6.8 million tonnes in 1970-71 to an estimated 13.1 million tonnes in 1979-80 which is more than double the level that

obtained at the start of the decade. The annual increase would work out to 7.6 per cent. Electricity generation also registered the same rate of growth during the last decade. In the context of the deepening energy crisis facing the countries the world over it becomes crucial to sustain and enhance the present rate of growth of production of commercial energy.

1.5 On the price front, considerable fluctuations occurred in the movement of average wholesale prices from year to year. Thus, while during 1970-71, the price index showed an increase of 5.5 per cent, in the year 1974-75 the level rose sharply by 25.2 per cent. In the subsequent year, there was a fall of 1.1 per cent which increased by 2 per cent in the very next year. During 1977-78 the prices rose again by 5.2 per cent with the next year recording a nominal fall. However, the year that has just passed by again witnessed a high inflationary situation with the wholesale price level registering an increase of 21 per cent by the end of December as compared with the position a year ago. Taking the decade as a whole, the average annual increase in wholesale prices amounted to nearly 10 per cent which is clearly indicative of the strong inflationary potential persisting in the economy.

1.6 Among a host of complex factors both on the supply and demand side affecting price changes in the economy, mention may be made of the considerable increase of money supply in the economy which grew at an average annual rate of 15.2 per cent during the last decade. The increase in the latter half of the seventies was much higher ranging between 18 and 20 per cent. Bank credit to the Government sector also grew at an average annual rate of nearly 15 per cent.

1.7 On the foreign trade front, there took place a progressive increase in trade deficit year after year with the sole exception of 1976-77. Otherwise trade deficit increased from Rs. 99 crores in 1970-71 to an estimated Rs. 2,000 crores in 1979-80. This is in spite of the fact that India's exports during the decade reflected an annual step-up of 20 per cent. The current level of exports is visualised at Rs. 6,500 crores. The major reason for the worsening of the trade balance was the substantial price hike that occurred in respect of imported petroleum products. Import of crude oil and petroleum products which was only Rs. 1,226 crores in the middle of the seventies i.e. 1975-76, has suddenly jumped up to a level of Rs. 3500 crores in 1979-80. This is expected to touch a level of Rs. 5,000 crores by the end of the current year

While in terms of quantity, the import of crude oil increased only at an average annual rate of 6 per cent in terms of value, the annual increase would work out as much as 43 per cent.

1.8 One comfortable feature about India's balance of payments situation during the period has been the phenomenal growth of foreign exchange resources resulting from increasing remittances from Indian nationals abroad. Foreign exchange reserves which stood at only Rs. 438 crores in 1970-71 have now increased to a level of Rs. 5200 crores reflecting an average annual increase of 31.6 per cent. This has provided the much needed cushion to the country's external transactions.

Trends during the year 1979-80.

1.9 From the economic standpoint the year that has gone by was, perhaps, one of the worst the country has had to face in recent times. The economy would be registering a fall in growth rate estimated around 3 per cent. The fall might even turn out to be greater depending on the actual trends in agricultural output. There took place a sizeable decrease in foodgrain output consequent on the poor performance of the kharif crop which was 11 million tonnes lower than the previous year's level. As a result of this, the foodgrains output which reached a record figure of 131 million tonnes in the previous year is expected to come down to a level of 118 million tonnes or so. Even this estimate is based on the assumption that there would not be any shortfall in the production of rabi crop.

1.10 The negative growth rate of agriculture together with the sluggish performance of the industrial sector have thrown the economy out of gear. According to some unofficial estimates, industrial production during the first eight months of 1979-80 was a shade lower (0.2 per cent) than that in the corresponding period of 1978-79 and was unlikely to record a growth rate of more than 2 per cent during the current financial year. This slow-down on the industrial front has mainly been on account of power shortage, shortage of key industrial raw materials such as cement, steel and coal and strained labour-management relations. Many States had to resort to severe power cuts from time to time ranging between 10 and 60 per cent. In States like Maharashtra, Uttar Pradesh and West Bengal there was even 100 per cent power cut for some time.

1.11 Although during the first eight months of 1979-80 power generation had increased by 5 per cent over the corresponding period last year, the demand was so large that availability fell short of requirement ranging from 8.5 per cent in August 1979 to 14.1 per cent in October, 1979. The shortfall in November 1979 was even higher at 16.6 per cent. It was this

inadequate availability and frequent shut down of power that adversely affected production in a series of industries. Notable among them were cotton fabrics, steel, jute textiles, cement and vanaspathi. As regards labour unrest, during the first eight months. (January-August 1979) about 28 million man days were lost as against 19 million during the corresponding period of 1978.

1.12 The cumulative impact of these developments in the economy was immediately felt on the price front. Prices started soaring and at the end of the year 1979, they spurted as much as 21 per cent. There was also no sign of let up in the inflationary forces. The overall governmental budgetary deficit is now expected to cross a record level of Rs. 3,000 crores and the country was also likely to face a foreign trade deficit of Rs. 2,000 crores—the highest ever. The foreign trade front presents a sombre picture with the mounting oil bill which is expected to reach a level of Rs. 5000 crores by the end of this year. This item alone would consume more than 70 per cent of our export earnings.

1.13 The huge buffer stock of foodgrains and sizeable foreign exchange reserves could provide some cushion against inflation as also help in the implementation of development programmes. Food buffer stocks have, however, started dwindling and deceleration has started in the rate of growth of foreign exchange reserves. These reserves have been used, by and large, to serve the current consumption needs rather than the needs of long term development. The nation is thus faced with a formidable challenge.

Trends in Kerala's Economy

1.14 Kerala had to pass through a difficult economic situation during the year under review consequent on the one hand due to a fall, nominal though it was, in the wholesale prices of agricultural commodities and the sharp escalation in the prices of consumer goods on the other, both the factors affecting adversely the purchasing power of the masses. This may be characterised as the inherent weakness of an economy which is a producer and exporter of primary goods and an importer of a large variety of capital goods and wage goods including basic items of mass consumption. Thus, the high inflationary situation that prevailed in the country during the year, has had its adverse impact on the State's economy as well. The average consumer prices in the different parts of the State may be said to have increased between 11 and 16 per cent during the course of the year. (January to December 1979). However, the retail prices of certain individual commodity items soared much higher during the year. These include pulses, edible oils, onion and sugar. The price of firewood also increased by as much as 34 per cent during the year.

1.15 As a result of the fall in the prices of agricultural commodities and the considerable rise in the prices of inputs, the price parity index became unfavourable to the farming community. The index for 1979 has been computed at 96 which would represent a fall to the extent of 6 points from the previous year's level. Thus, the real income of the farmers in particular suffered an appreciable fall during the year.

1.16 Another disturbing trend noticed in the economy in recent months has been the slowing down of foreign remittances into the State by Keralites working in the Gulf countries. According to some unofficial estimates, the drop in foreign remittances has been as much as Rs. 100 crores. A more serious development in recent months has been the grim prospects of many Keralites working in Gulf countries being compelled to return to Kerala due to stringent restrictions placed by such countries on jobs manned by foreign nationals. These developments are bound to have long-term adverse effects on the economic situation in the State in general and on the employment situation in particular. Important developments in the major sectors of the economy are discussed in the following paragraphs.

Income and Employment

1.17 The latest available data on State income pertain to the year 1977-78. At current prices, income during that year has been computed at Rs. 2405 crores against a figure of Rs. 2,271 crores in the previous year. The rate of growth of income in 1977-78 which was 5.9 per cent was lower by 0.6 per cent in comparison with the previous year, growth rate. The per capita income for 1977-78 would work out to Rs. 987 as against the all India average of Rs. 1,189. There is thus a big gap between Kerala's per capita income and the national average. A district-wise analysis of per capita income reveals that Ernakulam district retained its first place with a per capita income of Rs. 1285 while Malappuram continued to remain in the last rank with an estimated per capita income of Rs. 802 which is much below the State average.

1.18 The employment situation continued to remain grave during the year. According to a Survey conducted by the Bureau of Economics and Statistics in 1977-78, it was found that there were 11.74 lakh unemployed persons in the State consisting of 7.57 lakh males and 4.17 females. Out of the total unemployed persons, 9.02 lakhs were in the rural areas and 2.72 lakhs in the urban areas. As much as 43 per cent of the unemployed persons belonged to the category of educated (matric and above) work seekers. A comparison with the result of the survey undertaken in 1965 shows, that as a proportion of labour force, percentage of unemployment increased from 9.1 per cent in 1965 to 14.2 per cent in 1977.

Agricultural Production

1.19 The performance of the crop production sector during the year 1978-79 has not been satisfactory. Rice production in that year amounted to 12.7 lakhs tonnes which was lower than the previous year's production level of 12.9 lakh tonnes. Production of pulses amounted to fifteen thousand tonnes showing a decline of 6.2 per cent over the previous year. There were also shortfalls in production of tea, coffee and rubber. Crops like pepper and cashew, however, showed increases in production. The variations in production of major crops have been more due to changes in area under cultivation than due to variations in productivity. Thus in respect of rice area under cultivation decreased by 4.89 per cent in 1978-79 as compared with the previous year, while area under pulses showed a decrease of 8.65 per cent. On the other hand area under cashewnut cultivation increased by 6.73 per cent. Area under pepper also showed an increase of 7.13 per cent. Productivity of some of these crops showed improvement in the year—rice by 3.18 per cent, pulses by 2.74 per cent and pepper by 16.58 per cent. However, production of crops like coconut and cashew showed marginal decline, while there was a very appreciable fall in productivity of crops like coffee (20 per cent), and rubber (9.84 per cent).

1.20 The World Bank assisted Kerala Agricultural Development Project (KADP) involving an investment of Rs. 63 crores and spread over a period of seven years from April 1977 made further progress during the year under review. Out of the 105 package units (75 for coconut rehabilitation programme, 10 for coconut new planting programme and 20 for pepper rehabilitation programme), 55 units started functioning in 1978-79, besides the 22 units which were started in the first year itself.

1.21 The Kerala State Coconut Development Corporation has commenced production of coconut oil and cake from the Corporation's first coconut processing complex located at Mamom in Attingal.

1.22 The performance of the four Small Farmer's Development Agencies in the State during 1978-79 was somewhat modest. Some slackening had taken place in availing institutional credit by the small farmers. The short-term credit scheme was operated by only one of the four SFDA Agencies. The share of commercial banks in the disbursement of short-term credit through these Agencies was practically nil during the year under review. However, there was improvement in the term loans issued by commercial banks.

Food situation

1.23 The overall food situation in the State during 1979 remained more or less stable, with the food supply

maintaining almost the same position as in the previous year. Excluding tapioca consumption, the per capita availability of foodgrains in 1979 was found to be 309 grams per capita per day as against 323 grams in the previous year. Imports of foodgrains into the State in 1979 remained at the same level as in the previous year. Though imports on State account declined significantly, this shortfall was compensated by larger import on private account. On account of the easy supply position in the market, there was a fall in the absorption of foodgrains through the public distribution system. The quantity of rice distributed through the public distribution system declined from 9 lakh tonnes in 1978 to 5.5 lakh tonnes in 1979, the corresponding figures for wheat being 36 thousand tonnes and 33 thousand tonnes respectively. The monthly average off-take of rice through the public distribution system declined from 75 thousand tonnes to 46 thousand tonnes, and that of wheat from 3000 tonnes to 2,700 tonnes.

1.24 Paddy procurement though the levy system declined considerably during 1978-79 to 2,507 tonnes from the previous year's level of 20,973 tonnes. This steep fall was due to the liberalisation of the levy policy by the State Government.

Land Reforms

1.25 Implementation of land reforms made further progress during the year. Disposal of cases pertaining to tenancy reforms under the K.L.R. Act was expedited and the number of cases pending disposal stood at 11,653 in November 1979 as against 26,479 during the previous year. As far as Kudikidappukar are concerned, a total of 4.32 lakh cases were filed for kudikidappu rights still the end of November 1979. Of this, 4.29 lakhs were disposed of. The progress achieved in the implementation of the ceiling provision was, however, less spectacular. The reason has been attributed to legal and procedural bottlenecks. In the matter of distributing surplus lands already taken over, of the total of 75,832 acres taken over till the end of December, 1979, 47,874 acres (65.4 per cent) have been distributed. The total number of beneficiary families came to 75,483. The beneficiaries consisted of 29,012 families of Scheduled Castes and 4,990 families of Scheduled Tribes. The total extent of poramboke lands available for distribution upto the end of October 1979 was 4.33 lakh acres. Out of this, 4.03 lakh acres were assigned. The total number of families benefited from the distribution of poramboke lands was 4.71 lakhs which comprised 83 thousand families belonging to the Scheduled Castes and Scheduled Tribes.

Livestock Development

1.26 As per the final figures of the 1977 Livestock Census, the State had a total number of 13.65 lakh

breeding cows. The improved stock comprised 6.85 lakhs (50.2 per cent). Milk production in the State increased from 7.38 lakh tonnes in 1977-78 to 7.8 lakh tonnes in 1978-79. The per capita milk availability in the States was 86 grams per day in 1978-79. With a view to improving the quality of the dairy cows in the State, cross breeding programme is being implemented by the Departments of Animal Husbandry, Dairy Development and the Kerala Livestock Development and Milk Marketing Board. In 1978-79, altogether 1352 artificial insemination units were functioning in the State. A total of 9.30 lakh artificial inseminations were conducted through these agencies in 1978-79 as against 8.37 lakhs done in the previous year.

Fisheries

1.27 The fisheries sector supports nearly 2.7 per cent of the total population of the State. A disturbing feature of the fisheries sector has been the declining trends in fish production, since 1973-74. In 1978-79 the total fish production in the State has been estimated at 3.98 lakh tonnes which is 15 per cent less than the production recorded in 1973-74. But compared to the production of 3.69 lakh tonnes in 1977-78, fish production in 1978-79 registered an increase of 7.9 per cent. The proportion of marine fish landings in Kerala as compared to the all-India figure decreased from 37 per cent in 1970 to 27 per cent in 1978. Production of inland fish in the State in 1978-79 showed only a nominal increase from 24,129 tonnes in the previous year to 24,512 tonnes.

1.28 In the matter of export of fish products, the value in 1978-79 amounted to Rs. 94 crores registering an increase of 21.38 per cent over the previous year. The quantity exported also increased by 8.32 per cent from 29,819 tonnes to 32,301 tonnes.

1.29 Kerala Fishermen's Welfare Corporation was formed in the State in 1978 with the objective of providing planned habitats to the traditional fishermen constituting 90 per cent of the total fishermen in the State. During the year 1978-79 the Corporation has launched a housing programme with a target of ten thousand houses in the first phase costing Rs. 4,000 per house. For the implementation of the scheme, the Corporation has availed till 1978-79, Rs. 66.5 lakhs from the HUDCO as loan and Rs. 50 lakhs from State Government towards grant contribution. The Corporation has also plans to issue fishing craft and gear to the traditional fishermen on joint ownership basis.

Forests

1.30 Forests in Kerala occupy about 24 per cent of the total geographical area of the State. The area under forests has been declining over the years. According to a rough estimate about 2 lakh persons are engaged in

forestry and logging operations and timber based industrial activities. By the end of March 1979, the extent of forest plantations in the State amounted to 1.36 lakh hectares registering a rise of 3 per cent over the previous year.

1.31 In view of the gradual depletion of forests over the past years, increased emphasis is now being given to production forestry than conservation forestry. It is in this context that the State Government has set up the two institutions of Kerala Forest Development Corporation and the Kerala Forest Research Institute. The Forest Development Corporation was set up in 1975 with an authorised capital of Rs. 10 crores. The paid up capital of the Corporation at the end of 1978-79 was Rs. 230 lakhs. It has so far received financial assistance of Rs. 321 lakhs from the Government of Kerala and Rs. 93 lakhs from the Government of India. The Agricultural Refinance Development Corporation and the State Bank of Travancore are expected to provide a long term loan of Rs. 4 crores to the Corporation. The important on-going projects of the Corporation are a pulpwood project, a match wood project, a cardamom project and a firewood distribution scheme.

1.32 The Kerala Forest Research Institute set up during 1975-76 is engaged in studies on timber and timber based industries, besides doing applied research on subjects closely related to the forestry of this State. The studies are aided by the State Government and agencies like the F.A.O. Two sub-centres of this Institute for conducting research on teak plantations and wild life are functioning at Nilambur and Thekkady respectively.

Irrigation and power

1.33 During the year 1978-79, under major and medium irrigation projects, an area of 13656 hectares (net) or 31,041 hectares (gross) has been added to the irrigated area as against a physical target of 35,000 hectares (gross). With this, the total area under irrigation as at the end of March 1979 came to 2.87 lakh hectares (gross) which is less than 21 per cent of the total irrigable area through such schemes. As at the end of March 1979, investments in major and medium irrigation projects amounted to Rs. 176 crores. It may be worth while undertaking an in-depth study of the cost benefit aspects of the major and medium irrigation projects from the point of view of the agricultural economy of the State.

1.34 As far as minor irrigation is concerned, the gross area as at the end of March 1979 was 1.33 lakh hectares which is only 10 per cent of the potential. An amount of Rs. 35 crores has been invested on various kinds of minor irrigation schemes as at the end of March 1979. Development of minor irrigation schemes in

Kerala with an uneven rainfall distribution and undulating topography has great scope and potential.

1.35 The five-year plans of Kerala have involved substantial investment in the power sector. About 28 per cent of the aggregate plan investment so far has gone to this single sector. The installed power generation capacity as at the end of 1978-79 amounted to 1011.5 MW. So far, the State has harnessed only one third of its power potential through eleven completed projects. Eight projects are at various stages of implementation which when completed will add 600 MW to the power generation capability of the State.

1.36 A special feature of power development in the State has been the fact that nearly two thirds of the investment on power has been spent on generation schemes. Internal utilisation of power has not risen to match the power generation capability, and in 1978-79 it was hardly 50 per cent of the energy potential created. Since investments in transmission and distribution have been less than what is required for fuller utilisation of the power generation capability of the State, high emphasis has been placed on these activities in the current Five Year Plan allocations. During 1978-79, of the total investment on power, as much as 71 per cent has been invested on transmission, distribution and rural electrification.

Industry

1.37 The main thrust of the State's industrial development policy during the year under review consisted in giving encouragement to the growth of new industries through a new package of assistance to large and medium scale units and a concerted effort at improving the performance of the units in the public sector. The package of assistance announced by the State Government consisted of measures such as giving developed lands, State investment subsidy, contribution to the cost of preparation of feasibility reports/project reports, interest free sales tax loan and exemption from payment of electricity duty. Government also constituted an Inter-Agency co-ordination group to assist entrepreneurs for speedy implementation of their projects.

1.38 The overall performance of the Corporations such as the Kerala State Industrial Development Corporation, Kerala State Textile Corporation and the Kerala State Electronics Development Corporation showed improvement during the year under review. The subsidiary companies of the Kerala State Industrial Enterprises also showed improvement during the year. The loss incurred by the six companies managed by this agency declined from Rs. 179 lakhs in 1977-78 to Rs. 146 lakhs in 1978-79. Value of production of these companies during the corresponding period rose from Rs. 856 lakhs to Rs. 1214 lakhs.

1.39 Latest data relating to working factories and their employment are available only upto the end of December, 1978. According to these data, there were 7784 registered working factories in the State employing 2.73 lakh workers. Ernakulam and Palghat districts recorded large increases in the number of working factories. However, in terms of total employment in the factories, there was a fall of 4.6 per cent. Noticeable fall in employment was recorded in the districts of Quilon, Trivandrum, Cannanore and Alleppey.

1.40 As at the end of March 1979, the Kerala State Industrial Development Corporation had promoted 18 projects of its own, extended promotional and financial assistance to 34 Companies to set up new units and rendered financial assistance to 14 existing units to undertake expansion, diversification or modernisation programmes. The cumulative net financial assistance sanctioned by the Corporation as at the end of March, 1979 amounted to Rs. 27.86 crores.

1.41 The Kerala State Electronic Development Corporation made good headway with its new schemes in the year under review. The total turnover of the Corporation during 1978-79 amounted to Rs. 275 lakhs as against Rs. 250 lakhs in the previous year. The working of the Corporation during the year resulted in a net profit of Rs. 4.30 lakhs. However, many of the subsidiary units of the Keltron group are yet to stabilise their production. The Keltron group of Companies have on its rolls more than 2000 workers in its 13 units.

1.42 As far as direct Central investments in the State are concerned, cumulatively they amounted to Rs. 325.5 crores as at the end of March, 1978. As a percentage of the total direct investment by the Centre in all the States taken together, this would work out to only 2.38 per cent. The first ship built at the Cochin Shipyard 'Rani Padmini' was launched in January, 1980. The cost of this 75000 tonne bulk carrier at the time of completion was Rs. 30 crores. The Kerala Newsprint Factory at Velloor could not make much headway owing to several problems relating to construction of factory sheds, machinery installation etc.

1.43 The situation in regard to the traditional industries of the State did not show any improvement during the year. Problems such as shortage of raw materials, adequate marketing facilities and lack of sufficient finances continued to afflict many industries. In the case of coir industry non-availability of raw husks at reasonable prices has been the main obstacle hindering the rapid expansion of the co-operative sector. In respect of cashew industry, inadequacy of raw nuts for processing has rendered round-the-year operations in cashew factories impossible. The State Cashew Development Corporation

incurred a loss of Rs. 17.58 crores during 1978-79 as against a nominal profit of Rs. 25 lakhs in the previous year. In the handloom sector, which is mainly concentrated in the three districts of Trivandrum, Kozhikode and Cannanore, there was some increase in production in 1978-79. About 23.4 million metres of cloth valued at Rs. 9.6 crores was produced by the co-operative sector in 1978-79. The year also witnessed a better performance in the export market. There was, however, acute shortage of yarn during the year under review. The success of the industry in future would depend on adequate supply of yarn as well as a better market for handloom cloth both inside the country and abroad.

1.44 In the field of small scale industries, a wide range of units sprang up in the year 1978-79 as a result of State sponsorship through financial assistance and incentives. As many as 1268 small scale units was newly registered during 1978-79. With this, the total number of registered units as at the end of March 1979 came to 13386. With the setting up of District Industries Centres in all the districts of the State and the implementation of the Action Plan for industrialisation, it is expected that the total number of small scale units will go up to 16,000 by the end of the current financial year. Though the mini industrial estate programme was continued in 1978-79 also, its progress was slow due to many problems confronting the entrepreneurs such as absence of adequate infrastructure facilities, hurdles to construction work for want of title deeds of the selected sites etc.

Transport and Communications

1.45 The total road length in the State increased from 85,873 km. in 1978 to 90,440 km. in 1979 which works out to nearly 36 km. per ten thousand population. Of the total road length, more than 15000 km. roads are maintained by the Public Works Department. The motor vehicle density in Kerala is high compared to most other States in India. During 1978-79, it had about 400 vehicles per hundred square kilometres of area and about 600 vehicles were newly registered in the State. With this, the total number of vehicles registered in the State as at the end of March 1979 amounted to 1.55 lakhs.

1.46 The fleet strength of the Kerala State Road Transport Corporation increased from 2622 in 1977-78 to 2822 buses at the end of 1978-79. About 6328 lakh passengers were carried by the State Road Transport Services during the year. However, the Corporation has not been able to run on a profit. The deficit of the Corporation in 1978-79 was Rs. 3.60 crores as against Rs. 2.65 crores in the previous year. As at the end of March 1979, the accumulated loss of the Corporation was Rs. 24.60 crores. This is a sizeable

loss if we take into account the fact that the total capital contribution to the Corporation at the end of March 1979 was Rs. 25.05 crores.

1.47 In the Railway sector, the opening of the new Trivandrum Railway Division was an event of major significance as also the starting of the railway link between Trivandrum and Kanyakumari. The construction work of Ernakulam-Alleppey coastal link has recently been started.

1.48 The Cochin Port continued to play its dominant role in the sphere of foreign as well as coastal trade. The total volume of traffic handled at the port during 1978-79 reached a record level of 5.5 million tonnes, an increase of 5.7 per cent over that in the preceding year. The traffic handled by the intermediate and minor ports of the State, however, showed a declining trend. In the field of air travel, the starting of the Cochin-Bombay Boeing Service was a major event.

1.49 In the sphere of communications, there was further expansion in facilities during the year. The number of telephone exchanges increased from 371 in March 1978 to 408 in April 1979. Nine out of the State's eleven district headquarters have Subscriber Trunk Dialing Service. Post office facilities are also highly developed in the State. The average area served by a post office in Kerala is 8.93 sq. km. as against the all India average of 26.24 sq. km.

Education

1.50 During the year 1978-79, there were 11379 schools in the State consisting of 1680 high schools, 2739 upper primary schools and 6970 lower primary schools. During that year, there was no increase in the number of schools. However, during 1979-80, Government have accorded sanction for starting 315 schools—111 high schools, 113 upper primary schools and 91 lower primary schools. Of the total number of schools newly sanctioned, as many as 283 schools are in the private sector. The private sector controls 62 per cent of the schools in the State. The total enrolment in schools has increased from 55.38 lakhs in 1978-79 to 55.93 lakhs in 1979-80. While enrolment in the secondary stage increased by 0.77 lakh, enrolment in the upper primary stage witnessed a fall of 0.26 lakh. The enrolment in the lower primary stage showed a slight increase during 1979-80 unlike the previous year. The total number of teachers in schools during 1978-79 was 1.74 lakhs. As much as 48 per cent of the teachers are women.

1.51 The expansion of university education in Kerala has been faster than that of primary and secondary education during the period 1960—1979. While the number of arts and science colleges increased from 53 to 130 during these years, the number of

students in colleges increased from 0.36 lakh to 1.93 lakhs. Private management continues to play an important role in the field of university education in Kerala. During 1978-79 there was no increase in the number of colleges. Out of the total number of students in colleges, pre-degree course accounts for 57 per cent, first degree 40 per cent and post-graduate course 3 per cent. Girls constitute 48 per cent of the total student strength in colleges.

1.52 In the field of professional and special education, there was no increase in the number of institutions during the year under review except in the case of Industrial Technical Institutes. The institutions for imparting technical education in the State consist of 6 Engineering Colleges, 18 Polytechnics, 21 Junior Technical Schools and 89 Industrial Training Institutes. During 1978-79, 2 Government Industrial Training Institutes and 33 Private Industrial Training Institutes have been newly created. The six Engineering Colleges in the State had a student strength of 4046 in 1978-79. Facility for post-graduate education exists in the three government colleges including the Regional Engineering College. Also facilities exist in the 2 government colleges for part-time engineering degree course and diploma holders. The enrolment in the Polytechnics during 1978-79 was 6837 as against 6726 in the previous year. The State is having 19 Teacher Training Colleges consisting of 4 Colleges in the Government sector and 15 colleges in the private sector. The total strength in these colleges during 1978-79 was 2339.

1.53 The four Medical Colleges in the State had a student strength of 3704 during 1978-79. There are four Ayurvedic Colleges (2 Government and 2 Private) in the State with a student strength of 689. The enrolment in the four Law Colleges (three Government and one Private) during 1978-79 was 2044.

Health

1.54 Good progress was achieved during the year 1978-79 in regard to the performance of modern medical care system in the State. While the total number of institutions has increased from 893 in 1977-78 to 898 in 1978-79, the number of beds per lakh of population has increased from 116 in 1977-78 to 119 in 1978-79. However, the regional imbalances in health facilities continued to persist. While the bed-population ratio was as high as 215 in Trivandrum, 157 in Alleppey and 148 in Kottayam, it was as low as 91 in Cannanore, 46 in Malappuram and 41 in Idukki.

1.55 A network of hospitals, dispensaries and health centres as revealed by statistics will not, however, offer a true picture of the quality of the health care available. Overcrowding, lack of cleanliness, inefficient emergency services, unserviceable state of many costly equipments

and above all gross inadequacy of drugs and hospital supplies are some of the striking defects of our medical care system as brought out recently by the High Power Committee on Health Services. These would need proper attention and remedial measures.

Water Supply

1.56 In Kerala, 65 per cent of the urban population and 26 per cent of the rural population are served by protected water supply. During 1978-79, 29 urban water supply schemes were in operation and 10 schemes were under different stages of implementation. In regard to rural water supply schemes, considerable progress took place in 1978-79 with the completion of 59 new schemes in that year. Besides 272 rural schemes were under various stages of construction. By the end of 1978-79, a total of 722 rural water supply schemes were in operation. Twenty-five out of 29 urban schemes and 205 out of 722 rural schemes were financed by the Life Insurance Corporation of India. The amount disbursed by the L. I. C. in that year came to Rs. 515 lakhs.

Housing

1.57 The housing policy of the State has been evolved taking into consideration the problems of four main categories of the population, namely, those who own neither a house nor a site, those who have sites but no house to live in, those who have only substandard houses and those who are victims of the acute shortage in rental housing, specially in urban areas. Of these four categories, the housing problems of the poor, especially landless agricultural labourers and other weaker sections of the community, have been given greater weightage in the Government's programme of assistance for housing. Allround efforts at providing this basic human amenity have resulted in a multiplication of agencies implementing different kinds of housing programmes. The major housing schemes sponsored by the public sector are operated mainly by four agencies namely, the Board of Revenue, the Kerala State Housing Board, the Kerala Development Corporation for Scheduled Castes and Scheduled Tribes and the Kerala Fishermen's Welfare Corporation. The Board of Revenue is concerned with the implementation of three types of housing programmes, namely, Low Income Group Housing, Middle Income Group Housing Scheme and Village Housing Project. By the end of March 1979, as many as 15535 houses were constructed under these three programmes of which as many as 7463 were Village Housing Projects.

1.58 The Housing Board is the major agency in the field of housing in the State. It has so far taken up 50 types of schemes involving the construction of 8000 houses for different categories of people costing Rs. 16 crores. The Board has public housing schemes

in almost all the districts. In addition to the public housing schemes, the Board is operating in collaboration with Government and other financial institutions several housing schemes for the benefit of the economically weaker sections. Upto the end of 1978-79, the Board has sanctioned under its various housing programmes 27,192 housing loans to the economically weaker sections.

1.59 The Development Corporation for Scheduled Castes and Scheduled Tribes has taken up a massive housing scheme which is partly financed by HUDCO loans and partly by State Government grants. In the first phase the Corporation has sanctioned 2200 houses at a unit cost of Rs. 5000. So far, construction of 2159 houses has been completed. The Corporation has also targetted to construct ten thousand low cost subsidised houses in its second phase at a unit cost of Rs. 3000. Under this scheme, 2966 houses have so far been completed.

1.60 The Kerala Fishermen's Welfare Corporation has a massive programme for providing 25,000 habitats for fishermen within a period of 3 to 4 years with financial assistance from HUDCO. The Corporation has already planned to construct 5000 houses for distribution among fishermen under colonisation programme in Government-owned lands or land to be acquired for the purpose.

Welfare of Scheduled Castes and Other Backward Classes

1.61 The scheduled caste population has increased from 17.7 lakhs in 1971 to an estimated 22 lakhs at present. During the year 1978-79, an amount of nearly Rs. 10 crores was spent for the development of scheduled castes and other backward classes, in addition to an expenditure of Rs. 3.87 crores spent from the general sector schemes for the benefit of this group of people. Certain special schemes have been recommended for this target group such as supply of water and electricity to harijan colonies, provision of E. S. P. type latrines, link roads to harijan colonies, minor irrigation works and supply of coconut seedlings for the benefit of the scheduled castes. Some progress was achieved in respect of each of these schemes, during the year under review. During 1978-79, pre-matriculation scholarships were given to 4.5 lakh students and post-matriculation scholarship to 16,000 students belonging to Scheduled Castes.

1.62 For the benefit of the two lakh tribal population in the State, several plan schemes have been implemented during 1978-79. Specific allocations were made in the budgets of the different departments for implementation of tribal sub-plan schemes. During 1978-79 an amount of Rs. 29.6 lakhs was spent for the payment of lump sum grant and stipend to scheduled tribe students studying in L. P., U. P. and High School

classes for purchase of books and other school requisites. Free boarding and lodging facilities were provided to the boarders in the tribal hostels and expenditure on this account during 1978-79 amounted to Rs. 4.7 lakhs. The Education Department has opened 21 lower primary Schools in areas of tribal concentration. Five isolated tribal pockets were selected during the year for providing assistance for construction of houses, purchase of agricultural implements, live stock etc.

Export Trade

1.63 Latest available data on exports through Cochin Port relate to the year 1978-79. According to these data, there was a fall in export trade in that year as compared with the preceding year 1977-78. Total exports through Cochin Port during 1978-79 amounted to Rs. 432 crores as against Rs. 575 crores in the previous year. Major items accounting for this drop in export trade were tea, pepper and cashew kernels. Value of tea exported through Cochin Port declined substantially from Rs. 127.7 crores in 1977-78 to Rs. 63.35 crores in 1978-79, while that of pepper declined from Rs. 47.38 crores to Rs. 27.36 crores in the corresponding period. The fall in export trade of cashew kernels was also significant from Rs. 139.21 crores in 1977-78 to Rs. 75.69 crores during 1978-79.

Science and Technology

1.64 In recognition of the crucial role of science and technology in socio-economic transformation the State Government has been sponsoring and promoting Centres of Excellence in various branches of Science and Technology. The State Committee on Science and Technology coordinates the various science and technology programmes in the State. Among the new institutions that have taken shape recently are the Centre for Water Resources Development and Management, Centre for Earth Science Studies and a Botanical Garden and Research Institute. In all, there are 10 well established Centres in the State in various disciplines.

1.65 Kerala has a number of academic institutions in the field of Science and Technology that are devoted to post graduate education. However, the present facilities for post-graduate education, and particularly for R and D work are very poor. This points to the need for setting up an Advanced Centre for Studies in Science and Technology. To examine the various issues connected with the setting up of such a Centre, a high-level committee has recently been constituted by the State Planning Board.

CHAPTER 2

INCOME AND EMPLOYMENT

State Income

The State Income of Kerala for the year 1977-78, the latest year for which estimates are available, has been placed at Rs. 2406 crores at current prices as against Rs. 2271 crores for the previous year. In terms of rate of growth there has been an increase of 5.9 per cent in 1977-78 as against a higher rate of growth of 6.5 per cent witnessed in 1976-77. But a reversal of the trend is noticed when the rates of growth of State Income at constant prices for the two years are compared. While the State Income at 1970-71 prices registered a decrease of 2 per cent in 1976-77 over the previous year it showed an increase of 4.6 per cent in 1977-78 over the estimate for 1976-77. Thus there has been a moderate growth in production in physical terms in the different sectors of the State's economy during the year 1977-78 compared to 1976-77.

Per Capita Income

2.2 The per capita State Income in 1977-78 estimated at Rs. 987 registered an increase of 4.1 per cent over the previous year's estimate of Rs. 948 at current prices. At the same time the per capita national income rose by 9.5 per cent from Rs. 1086 in 1976-77 to Rs. 1189 in 1977-78. The estimate of State Income and National Income for 1976-77 and 1977-78 are

given in Table 2.1. The per capita income of Kerala was Rs. 138 less than the per capita national income in 1976-77. This difference increased to Rs. 202 in 1977-78.

Sector-wise Distribution of Income

2.3 Sector-wise estimates of State income and national income for the years 1976-77 and 1977-78 and the rates of growth in each sector during these years over the previous years at current and at 1970-71 prices are furnished in Appendix 2.1. As against a rate of growth of 8.2 per cent in the national income in 1977-78, in real terms, the State income of Kerala increased only by 4.6 per cent during the year. This lower growth rate in Kerala is mainly due to a decline of the income in the primary sector by 2.3 per cent. The secondary sector of the Kerala's economy, on the other hand, registered an increase of 25.4 per cent during 1977-78. The income originating from this sector has increased from Rs. 228 crores in 1976-77 to Rs. 286 crores in 1977-78 at constant prices. The registered manufacturing sector mainly accounted for the increase in income in the secondary sector. The income from the manufacturing sector alone increased from Rs. 92 crores to Rs. 130 crores. The tertiary sector, registered an increase of 3.7 per cent in 1977-78 over the previous year.

TABLE 2.1

State Income and National Income

| | Kerala | | India | | |
|---|----------------|----------------|-----------------|------------------|-----------------|
| | 1976-77 | 1977-78 | 1976-77 | 1977-78 | 1978-79 |
| Net Domestic/Net National Product (Rs. crores) | | | | | |
| At Current Prices | 2271 (+6.6) | 2406 (+5.9) | 66885 (+8.5) | 74794 (+11.8) | 80090 (+7.1) |
| At 1970-71 Prices | 1299 (-2.0) | 1358 (+4.6) | 40534 (+1.7) | 43857 (+8.2) | 45637 (+4.1) |
| Per Capita Income (Rs.) | | | | | |
| at Current Prices | 948 (+4.5) | 987 (+4.1) | 1086 (+6.5) | 1189 (+9.5) | 1250 (+5.1) |
| At 1970-71 Prices | 542 (-3.9) | 557 (+2.8) | 658 (-0.3) | 697 (+5.9) | 712 (+2.1) |

Note: Figures in brackets indicate percentage rate of growth over the previous year

Source: Bureau of Economics and Statistics, Kerala and C. S. O., New Delhi-

2.4 The sharp increase of 8.2 per cent in the growth rate of national income at constant prices in 1977-78 can be ascribed to the perceptible improvement of 11.6 per cent in the agricultural production during the year. The growth rate in the primary sector as a whole was 10.8 per cent. The growth rate in the secondary sector (viz. 6.2 per cent) was, however, lower than in the preceding year. The tertiary sector recorded 6.1 per cent increase as against 5.1 per cent during the preceding year. Total and per capita income of Kerala and all India from 1970-71 onwards, at current and constant prices with indices of growth are presented in Appendix 2.2 to 2.5.

2.5 The shifts in the percentage shares of the major sectors of the economy in the net domestic product of India and Kerala between the years 1970-71 and 1977-78, both at current and 1970-71 prices are presented in Table 2.2. During the seven year period from 1970-71 to 1977-78 the share of the primary sector in Kerala's economy declined by 8.4 per cent from 54.7

per cent to 46.3 per cent, while the shares of the secondary and tertiary sectors increased by 4.7 per cent and 3.7 per cent respectively. At current prices, though the share of the agriculture and allied sectors declined by 9.2 per cent, the increase in the secondary sector was only 2.3 per cent. The tertiary sector on the other hand increased by 6.9 per cent, the major part, viz., 4.6 per cent being accounted for by the sector, Transport, Communication and Trade. The different patterns in the shifts in the shares of the various sectors at constant and current prices show difference in the rate of change of the prices in various sectors. The primary sector in the national income at constant prices, during the same period, declined only by 4.2 per cent, the increase in the secondary sector being 1.5 per cent and that in the tertiary sector 2.6 per cent. Thus there has been a significant change in the structure of the State's economy with the share of the primary sector to State Income at constant prices falling rapidly during the period 1970-77 and that of the secondary and tertiary sectors registering moderate increase.

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

(Per cent)

| Sector | Kerala 1977-78 | | | India 1977-78 | | |
|--|-----------------------------|----------------------|----------------|-----------------------------|----------------------|----------------|
| | 1970-71 (Current Prices) | At 1970-71 Prices | Current Prices | 1970-71 (Current Prices) | At 1970-71 Prices | Current Prices |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. Primary Sector | 54.7 | 46.3 | 45.5 | 50.0 | 45.8 | 43.8 |
| 2. Secondary Sector | 16.4 | 21.1 | 18.7 | 19.8 | 21.4 | 22.6 |
| 3. Transport, Communication and Trade | 13.2 | 14.1 | 17.8 | 15.8 | 17.0 | 18.0 |
| 4. Finance and Real Estate | 3.6 | 4.6 | 4.5 | 4.9 | 5.5 | 5.9 |
| 5. Community and Personal Services | 12.1 | 13.9 | 13.5 | 9.5 | 10.3 | 9.7 |
| 6. Tertiary Sector (3+4+5) | 28.9 | 32.6 | 35.8 | 30.2 | 32.8 | 33.6 |
| Total: Net Domestic Product | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Per Capita Income of States

2.6 The statement given in Appendix 2.6 presents a three year average of per capita incomes of 18 major States for the years 1969-70 to 1971-72. These figures are compared with the three year average per capita incomes for the years 1974-75 to 1976-77. Percentages of these averages to the corresponding all-India averages along with ranks of States based on the average per capita incomes are also presented. States with per capita incomes higher than the all-India average at the beginning of the seventies continued to maintain the same position during the mid-seventies also. During the first time period, 11 States were having per

capita incomes less than the All India average. This number increased to 12 during the second time period and out of these 12 States the position of 7 States has deteriorated in the sense that their average per capita income as percentage of all India average has declined between these two time periods.

District Income of Kerala

2.7 The net domestic product originating from each district in the State estimated for the years from 1970-71 to 1977-78 at current and constant prices is presented in Appendix 2.7 and 2.8. In 1970-71, Quilon District had the highest share in the total net State domestic

product viz., 12.5 per cent and Ernakulam district had the second place with 11.7 per cent. At constant prices the share of Ernakulam district has increased to 14.1 per cent in 1977-78 and that of Quilon district declined to 11.2 per cent. Idukki district has the lowest share of the State income in all the years from 1970-71 to 1977-78.

2.8 The percentage shares of district income originating from the three main sectors, viz., primary, secondary and tertiary, during 1970-71 and 1977-78 are presented in Appendix 2.9. The share of primary sector in the total State income in 1970-71 was 54.7 per cent. The share of the primary sector in the district income varies from 35.8 per cent in Ernakulam district to 67.2 per cent in Idukki district. The share of secondary sector in 1970-71 was lowest in Malappuram District and highest in Ernakulam district. This trend continued throughout the years from 1970-71 to 1977-78. While about 38 per cent of the income of Ernakulam district in 1977-78 was from the secondary sector, it was only 11 per cent in Malappuram district during the year. The share of the tertiary sector in the district income is the highest in Trivandrum district. As

against the State average of 28.9 per cent for the tertiary sector in 1970-71, the share of this sector in the district income of Trivandrum was 35.6 per cent.

2.9 The per capita incomes of the districts in the State for the years 1970-71 and 1977-78, with their ranks are given in Table 2.3. Ernakulam district with a per capita income of Rs. 650 in 1970-71 tops the list, followed by Kottayam and Idukki districts. Ernakulam and Kottayam districts maintained their ranks in 1977-78 also at constant and current prices. Malappuram is the least developed district in terms of per capita income. The districts of Trivandrum, Alleppey, Trichur, Palghat, Malappuram, Kozhikode and Cannanore have per capita incomes less than the State per capita income in 1970-71 and their position remained unaltered in 1977-78 also. Further the per capita incomes of the districts of Alleppey, Trichur and Malappuram in terms of percentage of the State per capita income have come down between the years 1970-71 and 1977-78, (vide Appendix 2.12 and 2.13). This shows that the backward districts of the State remained backward during the seventies and the position of some of them has deteriorated further.

TABLE 2.3

Estimate of Per capita Income of Districts in 1970-71 and 1977-78

(Rs.)

| District | 1970-71 | | At 1970-71 Prices | | 1977-78 | | At Current Prices | |
|---------------|------------|------|-------------------|------|------------|------|-------------------|------|
| | Amount | Rank | Amount | Rank | Amount | Rank | Amount | Rank |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1. Trivandrum | 549 | 6 | 533 | 7 | 943 | 7 | | |
| 2. Quilon | 622 | 4 | 561 | 3 | 958 | 6 | | |
| 3. Alleppey | 544 | 7 | 513 | 10 | 900 | 10 | | |
| 4. Kottayam | 630 | 2 | 627 | 2 | 1099 | 2 | | |
| 5. Idukki | 623 | 3 | 545 | 5 | 1019 | 4 | | |
| 6. Ernakulam | 650 | 1 | 776 | 1 | 1285 | 1 | | |
| 7. Trichur | 532 | 9 | 520 | 9 | 915 | 9 | | |
| 8. Palghat | 587 | 8 | 556 | 4 | 952 | 8 | | |
| 9. Malappuram | 461 | 11 | 436 | 11 | 802 | 11 | | |
| 10. Kozhikode | 566 | 5 | 537 | 6 | 1020 | 5 | | |
| 11. Cannanore | 519 | 10 | 524 | 8 | 1003 | 5 | | |
| Kerala | 564 | | 557 | | 967 | | | |

Source: Bureau of Economics and Statistics, Kerala.

Population

2.10 The population of Kerala as on 1st of July 1979 is estimated at 252.5 lakhs. Until the mid 1960s the rate of growth of population in this State gradually accelerated from an annual rate below 1 per cent in the first quarter of this century to rates of 2 per cent in the 1940s and 1950s and nearly 2.6 per cent in the 1960s. Since that time the growth rates have declined steadily

both for the population as a whole and for each sex taken separately. This declining trend in the growth rate was observed in the year 1978 also.

Birth and Death Rates

2.11 Table 2.4 gives the birth and death rates estimated from the sample registration study which is conducted every year all over India.

TABLE 2.4
Birth Rates and Death Rates

| Year | Kerala | | India | |
|------|----------------------------|----------------------------|----------------------------|----------------------------|
| | Births per 1000 Population | Deaths per 1000 Population | Births per 1000 Population | Deaths per 1000 Population |
| 1970 | 31.6 | 9.2 | 36.8 | 15.7 |
| 1974 | 26.8 | 7.8 | 34.5 | 14.5 |
| 1975 | 28.0 | 8.4 | 35.2 | 15.9 |
| 1976 | 27.8 | 8.1 | 34.4 | 15.0 |
| 1977 | 25.8 | 7.3 | 34.8 | 15.2 |
| 1978 | 25.2* | 7.0 | .. | .. |

Source: Sample Registration Bulletin of the Registrar General of India.

*Provisional, Bureau of Economics & Statistics, Trivandrum.

2.12 While the birth rates at the all India level continues to remain stagnant at the level of 34 births per 1,000 population the downward trend in the Kerala's birth rates which gained momentum in the beginning of the seventies continues unabated. The year 1977 witnessed a perceptible decline of two points in the birth rate in the State. There has been a reduction of 0.3 points in the crude death rate of Kerala in 1978 and it has reached one of the lowest levels of 7 deaths per 1000 population as against 15 for the country as a whole. This shows that the general mortality rate among the population of the country as a whole is twice that of the population of the State. Appendix 2.16 gives the State-wise figures of crude birth and death rates. It can be seen that the death rates range from 7.3 per 1000 in Kerala to 19.1 in Uttar Pradesh.

increased from 25 per cent in 1972 to 32 per cent in 1976. Another measure which would have made a dent on infant and child mortality in Kerala consists of the mass immunisation programme implemented by the Government. Health consciousness of the public stimulated by the spread of general education in this State has led to a better utilisation of these programmes. A recent survey in 1977-78 shows that the literacy rate in Kerala has gone up from 60 per cent of the State's population in 1971 to 73 per cent in 1977-78.

Employment Situation

2.13 Though Kerala is one of the economically less developed States in the Indian Union with a per capita State Income estimated at Rs. 987 in 1977-78 as against a per capita national income of Rs. 1189, this State has succeeded in providing better health facilities and medical care to the population than many other States having higher levels of per capita income. According to the Sample Registration Study the percentage of births occurring in medical institutions has been on the increase in recent years. It is seen that the percentage of births under institutional attendance

2.14 Prevalence of high growth rates in the population of Kerala during the 1950s and the 1960s coupled with rapid reductions in mortality rates experienced during this period has resulted in a disproportionately inflated labour force in recent years. Also some of the factors such as heavy fragmentation of agricultural holdings, slow, if not arrested, growth of industries, inadequacy of industrial investments have all combined to worsen the employment situation in the State in recent years. In fact an explosive unemployment situation in this State was averted because of the opening of greater employment opportunities in Gulf countries during the past few years. In spite of this favourable factor, chronically unemployed among the labour force continues to increase.

2.15 An employment un-employment survey was carried out in the State by the Bureau of Economics and Statistics during the year 1977-78. Analysis of the data collected during the first quarter of the survey period showed that there were 11.74 lakhs of unemployed persons in the State consisting of 7.57 lakh males and 4.17 lakh females. Out of the total 11.74 lakh unemployed persons 9.02 lakhs were in the rural areas and 2.72 lakhs in the urban areas. The percentage of unemployed persons was higher in urban areas (7.11 per cent of the population in urban areas) than in the rural areas (4.43 per cent of the population in the rural areas). A comparison with the results of a similar survey conducted in 1965 shows that in 1965 only 9.1 per cent of the labour force were reported as unemployed as against as high as 14.2 per cent of the labour force reported as un-employed in 1977. It is

also worth noting that 43 per cent of the unemployed in 1977 belong to the category of educated (matric and above) work-seekers.

Employment Exchange Statistics

2.16 At the end of December 1979 there were 12.49 lakhs of work-seekers on the live register of the employment exchanges compared to 10.53 lakhs at the end of December 1978. The distribution of work-seekers on the live register according to educational level from 31-12-1969 is presented in Table 2.5. It is seen that during the last ten years there has been a five-fold increase in the total number of work-seekers on the live register. A more or less similar order of increase is noticed in each of the category of educated work-seekers except those having Pre degree qualifications.

TABLE 2.5

Distribution of Work-Seekers in Kerala by Educational Levels

| Period Ending | 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. & above | Percentage to total work-seekers |
|---------------|--------------------|-------------------|----------------------------------|-------------|------------|----------|---------------|---------------------|----------------------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 31-12-1969 | 2,39,586 | 96,153 | 40.13 | 1,24,469 | 6,275 | 11,002 | 1,687 | 1,43,433 | 59.87 |
| 31-12-1970 | 2,93,754 | 1,15,504 | 39.25 | 1,51,279 | 7,469 | 17,703 | 1,994 | 1,78,450 | 60.75 |
| 31-12-1971 | 3,67,381 | 1,66,305 | 45.27 | 1,67,814 | 10,168 | 20,841 | 2,223 | 2,01,076 | 54.73 |
| 31-12-1972 | 4,53,914 | 1,94,848 | 42.93 | 2,18,880 | 16,457 | 20,396 | 3,333 | 2,59,066 | 57.07 |
| 31-12-1973 | 5,23,882 | 2,39,921 | 45.80 | 2,26,783 | 18,965 | 34,327 | 4,156 | 2,83,961 | 54.20 |
| 31-12-1974 | 5,87,935 | 2,74,620 | 46.80 | 2,52,423 | 20,075 | 36,947 | 3,870 | 3,13,315 | 53.20 |
| 31-12-1975 | 6,91,242 | 3,31,628 | 47.98 | 2,81,989 | 28,329 | 44,456 | 4,840 | 3,59,614 | 52.02 |
| 31-12-1976 | 7,53,579 | 3,44,461 | 45.71 | 3,15,552 | 38,176 | 49,749 | 5,641 | 4,09,118 | 54.20 |
| 31-12-1977 | 8,49,378 | 3,91,954 | 46.15 | 3,51,211 | 46,830 | 53,037 | 6,346 | 4,57,424 | 53.85 |
| 31-12-1978 | 10,52,652 | 4,94,935 | 47.02 | 4,34,192 | 56,641 | 57,816 | 9,068 | 5,57,717 | 52.99 |
| 31-12-1979 | 12,49,372 | 6,06,513 | 48.55 | 5,12,080 | 67,892 | 54,320 | 8,567 | 6,42,859 | 51.45 |

Source: Directorate of Employment and Training, Kerala.

Professional and Technical Work-Seekers

2.17 The details regarding the distribution of professional and technical work-seekers are presented in Table 2.6. There was a spurt in the categories of

registrants as on 31-12-1979 especially medical graduates, ITI Certificate holders and engineering diploma holders. The unemployment among the technically qualified persons in general continues to be serious.

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 | Agriculture graduates | Veterinary graduates |
|---------------|-------------------|-----------------------|--------------------------------|------------------------------|-----------------------|----------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 31-12-1968 | 48 | 368 | N.A. | N.A. | 82 | N.A. |
| 31-12-1969 | 185 | 1,299 | N.A. | N.A. | 156 | N.A. |
| 31-12-1970 | 281 | 1,852 | 3,547 | 8,380 | 133 | 70 |
| 31-12-1971 | 405 | 2,068 | 3,450 | 9,894 | 128 | 116 |
| 31-12-1972 | 654 | 2,014 | 4,163 | 11,540 | 101 | 52 |
| 31-12-1973 | 902 | 2,135 | 3,836 | 10,003 | 80 | 40 |
| 31-12-1974 | 726 | 1,450 | 3,611 | 16,888 | Nā | Nā |
| 31-12-1975 | 809 | 1,850 | 3,990 | 20,163 | 32 | 117 |
| 31-12-1976 | 696 | 1,752 | 4,009 | 20,747 | 29 | 75 |
| 31-12-1977 | 490 | 1,784 | 3,585 | 21,376 | 78 | 32 |
| 31-12-1978 | 668 | 1,755 | 4,305 | 23,821 | 51 | 58 |
| 31-12-1979 | 691 | 1,395 | 5,430 | 26,519 | 62 | 56 |

Source: Directorate of Employment and Training, Kerala.

Employment in the Organised Sector

2.18 Under the Employment Market Information Programme (EMI) data regarding the level and trends of employment are collected at quarterly intervals by the employment exchanges. The programme covers only the organised sector of the economy viz.: (a) all establishments in the public sector and (b) non-agricultural establishments in the private sector employing ten or more workers. The data on employment collected under this programme in the public and private sectors in Kerala are given in Table 2.7. Even though the overall employment position showed a marginal increase (on the basis of data relating to the first nine months of 1979) an effect of the sizeable increase in employment in the public sector is more or less neutralised by the decline in the growth of employment in the private sector. As on 30-9-1979 when the employment in the public sector increased by 11,323, the private sector employment declined by 8,336 as compared to the year 1978.

TABLE 2.7

Employment in the Public and Private Sectors in Kerala

| Period Ending | Public sector | Private Sector | Total |
|---------------|---------------|----------------|----------|
| 31-12-1968 | 2,79,475 | 4,38,672 | 7,18,147 |
| 31-12-1969 | 2,91,082 | 4,27,715 | 7,18,797 |
| 31-12-1970 | 2,93,318 | 4,09,562 | 7,02,880 |
| 31-12-1971 | 3,33,257 | 4,15,105 | 7,48,352 |
| 31-12-1972 | 3,43,837 | 4,23,008 | 7,66,845 |
| 31-12-1973 | 3,65,445 | 4,13,230 | 7,78,675 |
| 31-12-1974 | 3,75,943 | 4,14,477 | 7,90,420 |
| 31-12-1975 | 4,18,151 | 4,62,712 | 8,80,863 |
| 31-12-1976 | 4,38,183 | 4,83,610 | 9,21,793 |
| 31-12-1977 | 4,56,607 | 4,96,035 | 9,52,642 |
| 31-12-1978 | 4,71,394 | 5,10,206 | 9,81,600 |
| 30-9-1979 | 4,82,717 | 5,01,870 | 9,84,587 |

Source: Directorate of Employment and Training, Kerala.

Placings through Employment Exchanges

2.19 The number of placings through Employment Exchanges from 1968 to 1969 is given in Table 2.8. The data relating to the number of placings through employment exchanges showed an increase of about 6000 during 1979 as against a sharp fall of about 3,000 during 1978. The number of employers using the employment exchanges for recruitment of staff has sharply increased in 1979 compared to the previous year.

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

2.20 Overseas Development and Employment Promotion Consultants limited (ODEPC), the first Government-owned agency in the State authorised to recruit manpower for overseas jobs, has the following main objectives:—

- (i) to find employment in foreign countries for the educated Keralities;
- (ii) to undertake independent or joint industrial ventures abroad;
- (iii) to raise financial resources from Indians abroad for projects in India; and
- (iv) to intensify exports of traditional and non-traditional items etc.

2.21 Since its inception on 27-1-1978, ODEPC sent 938 persons for jobs abroad. The country-wise deployment of personnel by the Agency is given in Table 2.9. The personnel deployed include technicians, doctors, nurses, medical assistants, helpers, etc.

TABLE 2.8
Placings Through Employment Exchanges in Kerala

| Year | Number of Placings | Monthly Average Number of Employers using Employment Exchanges |
|------|--------------------|--|
| 1968 | 15,658 | 492 |
| 1969 | 17,864 | 526 |
| 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 | 22,210 | 576 |
| 1977 | 16,272 | 501 |
| 1978 | 13,323 | 496 |
| 1979 | 19,265 | 723 |

Source: Directorate of Employment and Training, Kerala.

TABLE 2.9
Country-wise Deployment of Personnel by ODEPC as on 31-12-1979

| Country | Number of persons deployed |
|-----------------|----------------------------|
| 1. Libya | 199 |
| 2. U. A. E. | 169 |
| 3. Doha - Qatar | 213 |
| 4. Singapore | 50 |
| 5. Kuwait | 276 |
| 6. Maldives | 8 |
| 7. Mozambique | 23 |
| Total | 938 |

2.22 In attending to the welfare activities of the overseas residents, the Company has been successful in meeting some of their demands. Among them, the direct flight from Trivandrum to Dubai, Kuwait and Abudhabi, the starting of direct Air Cargo

Services from Trivandrum to Middle East, opening of the Regional Passport Office, Calicut, deserve attention. The Company also intervened when large number of Keralite nurses in West Germany faced the threat of unemployment and repatriation and succeeded in preventing their wholesale exodus to India.

The Kerala Institute of Labour and Employment

2.23 The Kerala Institute of Labour and Employment is an autonomous institution sponsored by the Government of Kerala. The Institute was registered on 4th February 1978 with the prime objective of imparting education and training, and conducting research on labour, employment and allied subjects with special reference to Kerala. 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.

2.24 During the year 1979, the Institute conducted 18 different training programmes for the officers of the Labour and National Employment Service Departments. A two-day seminar on Industrial Relations Bill was also organised in February 1979. It was attended by a large number of participants from industrial establishments, government departments educational institutions, personnel managers, trade union leaders, etc.

CHAPTER 3

PRICES AND COST OF LIVING

The year under review 1979 witnessed a high rate of price inflation. If a point to point comparison is made the price spurt was to the extent of 21 per cent by the end of December, 1979. Pressure on prices started manifesting itself even from the very beginning of the year. As the year progressed, a growing imbalance developed between supply and demand in the economy. A host of factors contributed to such an imbalance. Demand elasticities far out-stripped the supply availabilities which were characterised by extreme rigidities in various sectors. Agricultural production, in the latter half of the year suffered a serious set back owing to severe drought conditions in several parts of the country affecting the kharif harvest. Industrial production slackened considerably mainly on account of shortages of power, coal, cement and steel. In addition industry had to face difficulties of transport on account of wagon shortage and also shortage of diesel that was affecting road transport. The oil price hike was also a potent factor in the overall inflationary pull on the economy. On the demand

side, the rapid rate of increase in money supply that occurred during the year together with the rise in net bank credit to the Government sector added considerably towards building up the inflationary spiral in the economy. Some of the steep budgetary imposts levied during the year may also be said to be partly responsible for pushing up the price-level.

3.2 The index of wholesale prices which was 185.3 in January 1979 (1970-71=100) showed steady increase during the subsequent months of the year. It reached a level of 201.3 in June 1979 and increased further to 223.4 by December, 1979. The annual average index worked out to 205.2 as against the average index of 184.9 in the previous year. In percentage terms, the average annual increase in wholesale prices during 1979, as compared with the previous year, amounted to 11 per cent. However, when a point to point comparison is made, the wholesale prices at the end of the year was 21 per cent higher than that obtained a year ago. Table 3.1 sets out the factual data in this regard.

TABLE 3.1
Index Number of Wholesale Prices—All India (Base 1970-71=100)

| Average for the Month | Index | | | | Percentage Change | | |
|-----------------------|--------|--------|-------|-------|-------------------|-------------------|-------------------|
| | 1976 | 1977 | 1978 | 1979 | In 1977 over 1976 | In 1978 over 1977 | In 1979 over 1978 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| January | 166.4 | 178.4 | 184.5 | 185.3 | (+)7.2 | (+)3.4 | (+)0.4 |
| February | 164.9 | 182.4 | 181.4 | 184.6 | (+)10.6 | (-)0.5 | (+)1.8 |
| March | 162.6 | 182.9 | 182.9 | 189.0 | (+)12.5 | 0.0 | (+)3.3 |
| April | 166.2 | 184.1 | 182.4 | 195.3 | (+)10.8 | (-)0.9 | (+)7.1 |
| May | 169.3 | 187.4 | 183.1 | 196.8 | (+)10.7 | (-)2.4 | (+)7.5 |
| June | 179.5 | 187.8 | 184.7 | 201.3 | (+)9.5 | (-)1.6 | (+)9.0 |
| July | 177.6 | 188.7 | 186.8 | 209.3 | (+)6.3 | (-)1.4 | (+)12.0 |
| August | 178.5 | 188.1 | 186.9 | 215.9 | (+)5.6 | (-)0.7 | (+)15.6 |
| September | 179.5 | 188.2 | 186.6 | 219.8 | (+)4.8 | (-)0.9 | (+)18.1 |
| October | 177.7 | 185.2 | 187.5 | 220.1 | (+)4.2 | (+)1.2 | (+)17.5 |
| November | 176.8 | 184.2 | 187.5 | 219.7 | (+)4.3 | (+)1.8 | (+)17.3 |
| December | 177.4 | 185.5 | 185.4 | 223.4 | (+)4.5 | (-)0.1 | (+)20.5 |
| Annual Average | 173.03 | 185.25 | 184.9 | 205.2 | (+)7.1 | (-)0.3 | (+)11.0 |

3.3 Although the overall increase in wholesale prices during the year was of the order of 21 per cent, the price trends showed considerable variations in respect of different commodity groups. Table 3.2 gives details of the commodity group-wise changes in prices. While the manufactured products recorded the maximum increase to the extent of 24 per cent, primary articles registered an increase of 17 per cent reflecting a further shift in terms of trade against agriculture. The price increase in respect of manufactured articles was mainly due to the rising costs of various industrial inputs. Shortages of power, coal and steel and trans-

port bottlenecks have aggravated the situation. Among the manufactured products, food products registered the maximum price increase of as much as 47 per cent. Sugar price went up substantially during the year and between February and December 1979, the price increase amounted to 49 per cent. The Union Government made an upward revision in the administered price of sugar. To make matters worse, there also occurred a fall in sugar production. As against a production of 58.6 lakh tonnes in 1978-79, the current year's production is estimated around 48 lakh tonnes.

TABLE 3.2
Index Number of Wholesale Prices (All India) (Base 1970-71=100)

| Item | December 1977 | December 1978 | December 1979 | Percentage variation 1978 over 1977 | 1979 over 1978 |
|---------------------------------------|---------------|---------------|---------------|-------------------------------------|----------------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| I. Primary Articles | 183.3 | 178.9 | 209.4 | (-)-2.4 | (+)17.1 |
| i. Food Articles | 174.2 | 168.4 | 190.6 | (-)-3.3 | (+)13.2 |
| (a) Foodgrains | 176.3 | 174.2 | .. | (-)-1.2 | .. |
| (b) Cereals | 162.4 | 157.6 | 184.0 | (-)-3.0 | (+)16.8 |
| (ii) Pulses | 245.1 | 255.5 | 246.4 | (+)4.2 | (-)-3.6 |
| (b) Fruits and Vegetables | 170.9 | 144.7 | 186.8 | (-)-15.3 | (+)29.1 |
| (c) Milk and Milk Products | 156.4 | 161.4 | 168.0 | (+) 3.2 | (+)4.0 |
| (d) Non-food Articles | 174.1 | 172.2 | 198.8 | (-)- 1.1 | (+)15.5 |
| II. Fuel, Power, Light and Lubricants | 234.1 | 245.9 | 295.2 | (+) 5.0 | (+)20.1 |
| III. Manufactured Products | 179.1 | 180.4 | 223.0 | (+) 0.6 | (+)23.6 |
| (a) Food Products | 180.6 | 155.2 | 228.0 | (-)-14.1 | (+)46.9 |
| (b) Textiles | 175.9 | 180.7 | 208.4 | (+)2.7 | (+)15.3 |
| (c) Chemicals and Chemical products | 172.6 | 178.1 | 206.7 | (+)3.1 | (+)16.1 |
| (d) Basic Metals, Alloys & Products | 194.0 | 215.1 | 253.7 | (+)9.8 | (+)18.0 |
| (e) Machinery & Transport equipment | 173.1 | 183.7 | .. | (+) 6.0 | .. |
| All Commodities | 185.5 | 185.4 | 223.4 | (-)-0.1 | (+)20.5 |

Consumer Price Index—All India

3.4 The all India consumer price index of industrial workers is estimated to have gone up by 36 points

between January and November in 1979. The increase in the general index of wholesale prices during the same period was 34 points. The consumer price indices are furnished in Table 3.3.

TABLE 3.3
Consumer Price Index Numbers for Industrial Workers (All India) (Base 1960=100)

| Months | Index numbers | | | Percentage change | |
|-----------|---------------|------|------|-------------------|-------------------|
| | 1977 | 1978 | 1979 | In 1978 over 1977 | In 1979 over 1978 |
| (1) | (2) | (3) | (4) | (5) | (6) |
| January | 307 | 325 | 332 | (+)5.8 | (+)2.2 |
| February | 310 | 320 | 329 | (+)3.2 | (+)2.8 |
| March | 312 | 321 | 332 | (+)2.9 | (+)3.4 |
| April | 313 | 322 | 337 | (+)2.9 | (+)4.7 |
| May | 318 | 323 | 339 | (+)1.6 | (+)5.0 |
| June | 320 | 327 | 345 | (+)2.2 | (+)5.3 |
| July | 325 | 330 | 353 | (+)1.5 | (+)7.0 |
| August | 327 | 331 | 360 | (+)1.2 | (+)8.8 |
| September | 331 | 336 | 363 | (+)1.5 | (+)8.0 |
| October | 330 | 340 | 365 | (+)3.0 | (+)7.4 |
| November | 330 | 340 | 368 | (+)3.0 | (+)8.2 |
| December | 330 | 335 | N.A. | (+)1.5 | .. |

3.5 The increase of the consumer price index during the first ten months of 1979 over the corresponding period of 1978 worked out to an average of 5.5 per cent. A point to point comparison of the indices between the two years however indicates steeper increase in the cost of living towards the end of the year. The index in November 1979 thus reflected nearly 11 per cent increase in the cost of living over January, 1979.

Price Situation in Kerala

Wholesale Price Index of Agricultural Commodities

3.6 Contrary to the trend of general increase reflected in the wholesale price index of primary

products at the all India level (17 per cent) the wholesale price index of agricultural commodities in Kerala registered a nominal decline during the year under review. This divergence in the trend of prices with regard to primary products was manifest in 1978 also when, against a fall in the index at the all India level, the index in the State showed an upward move. Distinct from the general trend, however, commodities coming under two groups, namely, molasses and condiments and spices, which are items largely imported into the State, registered substantial increase in prices in tune with the all India trend (vide Table 3.4). The hike in the case of molasses was to the tune of 95 points (33 per cent) most of which occurred towards the end of the year.

TABLE 3.4

Wholesale Price Index of Agricultural Commodities—Kerala (Base 1952-53=100)

| Group | Index | | | | Variation | | |
|------------------------|-------|------|------|------|----------------|----------------|----------------|
| | 1976 | 1977 | 1978 | 1979 | 1977 over 1976 | 1978 over 1977 | 1979 over 1978 |
| 1. Foodgrains | 319 | 319 | 319 | 319 | Nil | Nil | Nil |
| 2. Molasses | 423 | 368 | 289 | 384 | (-)13.0 | (-)21.0 | (+)32.9 |
| 3. Condiments & Spices | 318 | 309 | 324 | 378 | (-)2.8 | (+)4.8 | (+)16.7 |
| 4. Fruits & Vegetables | 380 | 497 | 564 | 518 | (+)30.8 | (+)13.4 | (-)8.2 |
| 5. Food Crops | 332 | 349 | 360 | 364 | (+)5.1 | (+)3.2 | (+)1.1 |
| 6. Oil Seeds | 525 | 606 | 677 | 648 | (+)15.4 | (+)11.7 | (-)4.3 |
| 7. Plantation Crops | 236 | 310 | 308 | 306 | (+)31.4 | (-)0.6 | (-)0.7 |
| 8. Non-food Crops | 438 | 516 | 565 | 545 | (+)26.2 | (+)11.2 | (-)3.5 |
| All Crops | 370 | 410 | 435 | 430 | (+)10.5 | (+)6.1 | (-)1.2 |

3.7 The fall in the all crops index was really the combined impact of the decline under fruits and vegetables (8 per cent), oil seeds (4 per cent) and non-food crops (4 per cent). The fall in the price of oil-seeds, prominently of coconuts, coupled with the stagnation under the plantation crops, consisting of tea, coffee and rubber, which together form the main cash crops of the State, indicates that the farming sector of Kerala did not fare well in an year of general upsurge of prices in the country. The plantation crops have been stagnating for the past two years. Viewed against the price trend of all the other primary products during the past decade the disquieting fact is that the plantation crops, a significant portion of which is exported from the State, have been trailing behind (vide Appendix 3.5)

Retail Price of Essential Commodities

3.8 The year 1979 witnessed a general uptrend in the retail prices of most of the essential commodities of general consumption in the State. This could not be otherwise because many of the basic consumer items required in the State are being brought in from outside and in an atmosphere of scarcity and other bottlenecks, it was therefore not easy to maintain stability at the retail points ensuring a free flow from the distant points of supply. Remarkably while the price of at least a few of the primary products showed a tendency to remain stable or move erratically, all the manufactured items without exception firmed up steadily. This has been the trend in the past also. The retail prices are furnished in Table 3.5 and Appendix 3.6.

TABLE 3.5

State Average of Retail Prices of Essential Commodities

| Commodity | Unit | Price (Rs.) end of December | | Percentage variation of 1979 over 1978 |
|--|----------|-----------------------------|--------|--|
| | | 1978 | 1979 | |
| (1) | (2) | (3) | (4) | (5) |
| 1. Rice (open market) | Kg. | 2.25 | 2.31 | (+)7.44 |
| 2. Dhall | " | 5.42 | 5.28 | (-) 2.6 |
| 3. Redgram | " | 2.97 | 3.72 | (+)25.3 |
| 4. Greengram | " | 4.13 | 4.62 | (+)11.9 |
| 5. Blackgram | " | 3.70 | 3.70 | Nil |
| 6. Coconut Oil | " | 12.46 | 14.13 | (+)13.4 |
| 7. Coriander | " | 3.76 | 3.71 | (-) 1.3 |
| 8. Chillies | " | 11.60 | 9.70 | (-)16.4 |
| 9. Onion | " | 0.68 | 4.06 | +497.0 |
| 10. Tamarind | " | 7.58 | 6.31 | (-)16.8 |
| 11. Coconut (Without husk) | 100 Nos. | 107.00 | 119.20 | (+)11.4 |
| 12. Tapioca | Kg. | 0.53 | 0.68 | (+)28.3 |
| 13. Tea (Brooke Bond A1 dust) | " | 18.66 | 19.37 | (+) 3.8 |
| 14. Coffee powder (Brooke Bond Family brand) | " | 18.41 | 17.21 | (-) 7.0 |
| 15. Milk (cows) | Litre | 2.36 | 2.49 | (+) 5.5 |
| 16. Firewood (local-split) | Qtl. | 24.35 | 32.60 | (+)33.9 |
| 17. Mundu (Kora) | Each | 7.90 | 8.28 | (+) 4.8 |

3.9 Among the primary products relative stability was maintained in the open market price of rice with only a slight improvement towards the end of the year. Still the price differential between the bottom in February and peak in November was only 25 ps. per kg. Compared to the beginning of the year almost all primary items have become dearer towards the end of the year. The only significant exceptions were blackgram, coriander, chillies and tamarind. Greengram and redgram, which remained rather stable in the beginning, became dearer afterwards. In tune with the all India pattern, edible oils in general recorded staggering increases during the year. Coconut oil which showed a tendency to climb down till the middle of the year firmed up thereon reaching the peak level of Rs. 14.53 per kg. in November. The other edible oils followed suit. Due to fall in production, leading to widespread scarcity, onion became the dearest item commanding the maximum increase in price during the year. From 65 ps. per kg. at the base level the price of onion shot up to over Rs. 4 towards the end of the year. A similar phenomenal increase was noted in the case of sugar also. The price range

of sugar during the year was between Rs. 2.31 and Rs. 5.47 per kg. The price of firewood which has been going up steadily in the past reached a new high by the end of the year. Against Rs. 20 per quintal in early 1978, it was about Rs. 33 in December, 1979. Among the manufactured items, while the general tendency for prices was to move up, relatively steeper has been the increase recorded by the items like paper, washing soap, washing soda etc.

Consumer Price Index

3.10 The allround increase in the retail prices of essential commodities had been truly reflected in the consumer price indices in selected centres of the State. The yearly average increase in the different centres ranged from 9 to 14 points or from 5.6 per cent to 8.5 per cent. The increase in the indices during the course of the year (January to December) was even higher and ranged between 11 and 16 per cent. The average annual indices of consumer prices in selected centres in Kerala are furnished in Table 3.6.

TABLE 3.6

Average Annual Index of Consumer Price in Selected Centres in Kerala (Base—1970=100)

| Centre | Average Annual Index | | | Variation | |
|----------------|----------------------|------|------|-----------------------|-----------------------|
| | 1977 | 1978 | 1979 | During 1978 over 1977 | During 1979 over 1978 |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. Trivandrum | 160 | 166 | 179 | (+)3.8 | (+) 7.8 |
| 2. Quilon | 163 | 167 | 179 | (+) 2.5 | (+) 7.2 |
| 3. Punalur | 169 | 161 | 173 | (-) 4 | (+) 7.5 |
| 4. Alleppey | 159 | 161 | 173 | (+) 1.3 | (+) 7.5 |
| 5. Kottayam | 154 | 162 | 175 | (+) 5.2 | (+) 8.0 |
| 6. Mundakayam | 156 | 158 | 170 | (+) 1.3 | (+) 7.6 |
| 7. Munnar | 172 | 175 | 186 | (+) 1.7 | (+) 6.3 |
| 8. Ernakulam | 158 | 162 | 171 | (+) 2.5 | (+) 5.6 |
| 9. Chalakudy | 157 | 165 | 178 | (+) 5.1 | (+) 7.9 |
| 10. Trichur | 158 | 166 | 179 | (+) 5.1 | (+) 7.8 |
| 11. Palghat | 160 | 163 | 175 | (+) 1.9 | (+) 7.4 |
| 12. Malappuram | 161 | 164 | 178 | (+) 1.9 | (+) 8.5 |
| 13. Kozhikode | 163 | 170 | 181 | (+) 4.3 | (+) 6.5 |
| 14. Meppadi | 165 | 170 | 183 | (+) 3.0 | (+) 7.7 |
| 15. Cannanore | 157 | 164 | 175 | (+) 4.5 | (+) 6.7 |

3.11 The monthly variations in the cost of living indices in the different centres are presented in Appendix 3.7. It can be noted that the index which remained virtually stable during the first two months of the year picked up from March onwards, slowed down its onward march in October and ultimately bounced to the peak in December. The increase in the index between October and December in most of the centres was to the tune of 8 to 9 points.

Parity Index

3.12 The index number of parity between the prices received and paid by the farmer is a significant indicator of the relative gain or loss of the farming sector consequent to the price fluctuations in the economy. The trend in the parity during the past decade was of a cyclical nature marked by gains and losses of equal number of years (vide Table 3.7). Gain in one or two years in succession seems to have been offset

TABLE 3.7

Index Number of Parity between Prices Received and Paid by Farmers—Kerala (Base—1952-53=100)

| Year | Prices received by Farmers | Farm cultivation cost | Domestic expenditure | Prices Paid by Farmers | Parity |
|------|----------------------------|-----------------------|----------------------|------------------------|--------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1970 | 205 | 270 | 217 | 242 | 103 |
| 1971 | 227 | 278 | 218 | 246 | 92 |
| 1972 | 222 | 296 | 232 | 262 | 85 |
| 1973 | 308 | 336 | 280 | 307 | 100 |
| 1974 | 423 | 414 | 368 | 390 | 109 |
| 1975 | 404 | 454 | 401 | 427 | 95 |
| 1976 | 406 | 469 | 356 | 409 | 99 |
| 1977 | 421 | 488 | 347 | 411 | 102 |
| 1978 | 429 | 498 | 357 | 422 | 102 |
| 1979 | 434 | 535 | 380 | 451 | 96 |

by the loss in the following years. However this mechanism of neutralisation manifested over the years has not been working to the advantage of the farmers, as is evidenced by the average of indices for the past ten years that worked out to about 98.3. The indication is that the temporal trend in the overall movement of prices in the economy has been resulting in a net outflow of income from the agricultural sector.

3.13 The year 1979 appeared to be an year of set back to the farming sector of Kerala. The parity index during the year was only 96 which represents a fall to the tune of 6 points from the previous year. This is viewed as a reflection of the decline in the general index of primary products noticed in the State, as against the overall increase of the order of 21 per cent in the general index of wholesale prices at the all India level. While the index of prices received by the farmer recorded only a marginal increase of 5 points during the year the rise in the prices paid by the farmer was far in excess at 29 points, on account of increase in paid out cost of cultivation as well as domestic expenditure. It may be noted that the rise in the farm

cultivation cost during the year (37 points) was more than proportionate to that of domestic expenses (23 points). A comparative study of the growth trend in the indices of the farm cultivation cost in the decade with the domestic expenditure and prices received by farmers reveals that the cultivation cost in the State has been growing at a faster rate eroding into the profitability of cultivation. This is to be viewed with anxiety as the yields of most principal crops grown in the State have also stagnated in recent years, with the result that the farm incomes might have experienced a drastic fall in the State.

Food Situation

3.14 During the year 1978-79, the food situation in Kerala remained more or less comfortable. The overall position of food supply was maintained almost the same level as in the previous year. The total quantity of food-grains imported during 1978-79 is estimated at 17.4 lakh tonnes. The total availability of food-grains in the State was found to be 309 grams per capita per day as against 323 grams in the previous year (See Table 3.8)

TABLE 3.8
Per Capita Availability of Food in Kerala

| Particulars | (Grams/Day) | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|-------|
| | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979* |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1. Rice from internal production in the State | 149 | 152 | 147 | 135 | 140 | 137 | 128 | 130 | 123 |
| 2. Rice from import (estimated) | 95 | 97 | 88 | 89 | 60 | 103 | 171 | 180 | 175 |
| 3. Total rice in the State (1+2) | 244 | 249 | 235 | 224 | 200 | 240 | 299 | 310 | 298 |
| 4. Wheat from import (estimated) | 7 | 10 | 24 | 29 | 60 | 45 | 24 | 13 | 11 |
| 5. Total foodgrains (3+4) | 251 | 259 | 259 | 253 | 260 | 285 | 323 | 323 | 309 |
| 6. Rice equivalent of Tapioca within the State | 199 | 229 | 234 | 228 | 222 | 208 | 196 | 156 | 156 |
| Total (5+6) | 450 | 488 | 493 | 481 | 482 | 493 | 519 | 479 | 465 |

*Provisional

3.15 The buoyancy in the food front had its favourable impact on the open market with easy supply position and lower prices. This is evidenced by the fall in the absorption of foodgrains through public distribution system. The quantity of rice distributed through the public distribution system declined from 9.0 lakh tonnes to 5.5 lakh tonnes and that of wheat from 36,000 tonnes to 33,000 tonnes. The monthly average off-take of rice from the public distribution system declined from 75,000 tonnes to 46,000 tonnes and that of wheat from 3,000 tonnes to 2,700 tonnes (See Table 3.9)

TABLE 3.9
Distribution of Rice and Wheat through Public Distribution System

| Month | Rice Distributed (in tonnes) | | Wheat Distributed (in tonnes) | |
|----------|------------------------------|-------|-------------------------------|------|
| | 1978 | 1979 | 1978 | 1979 |
| (1) | (2) | (3) | (4) | (5) |
| January | 78431 | 44990 | 3271 | 2610 |
| February | 67142 | 35586 | 2606 | 2021 |
| March | 83658 | 34844 | 2832 | 2117 |
| April | 82178 | 40864 | 2426 | 1778 |
| May | 81324 | 41770 | 2515 | 1907 |
| June | 85910 | 38541 | 2898 | 2005 |

| | | | | |
|------------------------|---------------|---------------|--------------|--------------|
| July | 84303 | 47887 | 3556 | 3373 |
| August | 87685 | 51950 | 3906 | 3427 |
| September | 77419 | 46179 | 2988 | 2814 |
| October | 56489 | 50938 | 3020 | 3281 |
| November | 61974 | 56594 | 2996 | 3277 |
| December | 49214 | 58460 | 2777 | 3839 |
| Total | 895727 | 548603 | 35796 | 32630 |
| Monthly Average | 74644 | 45717 | 2983 | 2719 |

Source: Directorate of Civil Supplies.

3.16 The network of public distribution system registered a modest performance during 1978-79. There was a decline in the total number of wholesale shops as well as retail shops, compared to the previous year. While the wholesale shops decreased from 275 to 273, the retail shops fell from 11861 to 11753 (See Table 3.10). The decline in the number of both wholesale and retail shops was solely in the co-operative sector.

TABLE 3.10

Public Distribution System for Essential Commodities in Kerala

| Sl. No. | Particulars | Unit | 1978 | 1979 |
|---------|---|-------------|---------|---------|
| | (1) | (2) | (3) | (4) |
| 1 | No. of ration cards and permits (as on 1st April) | | | |
| | (a) Ration cards for families | Nos. | 4036717 | 4047776 |
| | (b) Ration permits for institutions | " | 4833 | 4281 |
| 2 | No. of F. C. I. Sub Depots | " | 22 | 22 |
| 3 | No. of wholesale shops | | | |
| | (a) Co-operatives | " | 62 | 50 |
| | (b) Others | " | 213 | 223 |
| | (c) Total wholesale shops | " | 275 | 273 |
| 4 | No. of retail shops | | | |
| | (a) Co-operatives | " | 2911 | 2618 |
| | (b) Others | " | 8950 | 9135 |
| | (c) Total | " | 11861 | 11753 |
| 5 | Quantity of Coarse clothes (Allotted) | Std. bales. | 9276 | 10488 |
| 6 | Wheat products distributed | " | N. A. | N. A. |
| 7 | Sugar | M. tonnes | 82308 | Nil |
| 8 | Kerosene | " | 129104 | 132204 |

Kerala State Civil Supplies Corporation

3.17 The Kerala State Civil Supplies Corporation Ltd. was constituted to function as an effective instrument of the State Government to enter into the essential

commodities market in a decisive way and thus influence the general price level.

3.18 In addition to the existing channels of public distribution, the Corporation has been able to build up its own network of wholesale and retail outlets. The Corporation has under its control nine district depots, one sub depot, thirteen retail depots (one each at eleven district headquarters, and one each at Sertalai and Wellington Island respectively), five petrol bunks and two vegetable stalls. The wholesale and retail ration dealers in the State are its commission agents for distribution of goods in trade by the Corporation.

3.19 Trade in foodgrains and wheat products accounted for nearly 90 per cent of the turnover of the Corporation till 1977. But the participation of the Corporation in this trade declined subsequently, on account of the improvements in the availability of foodgrains in the State. Therefore more emphasis has been laid recently on the distribution of other essential commodities.

Procurement of Paddy

3.20 The procurement of paddy declined from 20,973 tonnes in 1977-78 to 2507 tonnes in 1978-79. This steep decline in the procurement of paddy is the consequence of the liberalisation of the levy policy by the State Government. The percentage of paddy procured to the total production declined from 1.62 to 0.14 (see Table 3.11).

TABLE 3.11

Procurement of Paddy

| Month | Quantity in Tonnes | |
|--------------|--------------------|---------------|
| | 1977-78 | 1978-79 |
| July | 126.3 | 1255.4 |
| August | 89.3 | 107.7 |
| September | .. | 24.6 |
| October | 3670.9 | 12.1 |
| November | 4082.2 | 148.9 |
| December | 2755.6 | 222.8 |
| January | 615.0 | 173.3 |
| February | 949.9 | 204.1 |
| March | 4699.4 | 118.6 |
| April | 2575.2 | 24.4 |
| May | 270.8 | 125.6 |
| June | 1139.2 | 89.7 |
| Total | 20973.8 | 2507.2 |

Production of paddy procured to the total availability for consumption from internal production (Percentage)

1.62 0.14

CHAPTER 4
AGRICULTURE

Group Production

The year 1978-79 has been a relatively stagnant period with respect to the performance of the crop production sector. The index number of agricultural production declined by 1.8 point from 144.3 to 142.5. There has been a decline in the index of area under crops by 1.2 point over the period. While the production in the food crop sector showed marginally a better performance, the production index in the non-food crop sector presented a disquieting picture with a decline of 5.4 points, which ultimately accounted for the overall poor performance of the crop production sector. This disquieting feature has largely been due to the steep fall in the productivity of plantation crops. The poor performance is generally attributable to the unfavourable weather conditions which prevailed during the previous year.

4.2 The food crop sector could present a slightly better performance in spite of the occurrence of flood

and fall in area, because of the increase in the productivity of foodgrains. This has been made possible by the increased use of farm inputs such as fertilizers and pesticides due to a favourable price level maintained by them. The increased availability of credit, both long and short term, might have helped the farmers to resort to better farm practices.

4.3 A notable feature in the farm sector in recent years has been the gradual expansion of area by the non-foodgrains sector during the last three or four years. This expansion has been mainly at the cost of the foodgrains sector. Since most of the garden crops are less prone to natural hazards, and investment in these are considered as less risky, there is a tendency among farmers, especially small farmers, to prefer these crops. There is also some scope for higher domestic labour participation in this sector.

TABLE 4.1
Index Number of Area, Production and Productivity of Principal Crops in Kerala

(Base Year—Average of 1959-60 to 1961-62)

| Crops | Area | | | Production | | | Productivity | | |
|------------------------------|---------------------------------------|----------|---------|---------------------------------------|---------|----------|---------------------------------------|---------|----------|
| | Average of 5 years 1969-70 to 1973-74 | 1977-78* | 1978-79 | Average of 5 years 1969-70 to 1973-74 | 1977-78 | 1978-79* | Average of 5 years 1969-70 to 1973-74 | 1977-78 | 1978-79* |
| All Crops (A+B) | 128.3 | 125.4 | 124.2 | 152.1 | 144.3 | 142.5 | 118.6 | 115.1 | 114.7 |
| A. Food Crops (1+2) | 121.4 | 116.9 | 114.7 | 161.9 | 150.4 | 150.9 | 133.4 | 128.7 | 131.6 |
| 1. Food grains (a+b) | 112.5 | 107.7 | 102.3 | 124.8 | 124.1 | 121.7 | 110.9 | 115.2 | 119.0 |
| (a) Cereals | 113.9 | 109.0 | 103.7 | 125.3 | 124.4 | 122.0 | 110.0 | 114.1 | 117.6 |
| (b) Pulses | 88.6 | 83.7 | 76.4 | 76.1 | 92.4 | 86.7 | 85.9 | 110.4 | 113.5 |
| 2. Non-Food grains | 135.0 | 130.9 | 133.6 | 196.2 | 174.7 | 178.0 | 145.3 | 133.5 | 133.2 |
| B. Non-Food Crops (i+ii+iii) | 140.9 | 141.3 | 142.2 | 136.9 | 135.0 | 129.6 | 97.2 | 95.5 | 91.1 |
| (i) Oil Seeds | 143.2 | 133.2 | 134.2 | 119.0 | 93.4 | 94.1 | 83.1 | 70.1 | 70.1 |
| (ii) Plantation Crops | 144.1 | 167.9 | 168.6 | 224.7 | 329.9 | 295.1 | 155.9 | 196.5 | 175.0 |
| (iii) Other Commercial Crops | 90.4 | 101.0 | 101.1 | 97.9 | 133.2 | 133.1 | 108.3 | 131.9 | 131.7 |

* Based on Provisional estimates.

Cereals: Rice, Jowar, and Ragi

Non-Food grains: Banana, Tapioca, Sugarcane, Pepper, Ginger, Turmeric, Arecanut, Cardamom and Cashewnut

Oil Seeds: Groundnut, Sesamum, and Coconut

Plantation Crops: Tea, Coffee and Rubber

Other Commercial Crops: Lemongrass, Cotton and Tobacco.

Farm Commodity Prices

4.4 The year 1979 witnessed a rise in the prices of food crops and a fall in the prices of most of the commercial crops. The plantation crops in general enjoyed a rise in price. Though the rise in price was considerable in the case of tapioca, it was only marginal for paddy (See Table 4.2). The fixation of support price for tapioca might have prevented the price

decline. The State Government has enhanced the support price for paddy during the kharif season of 1979. Since the price factor of paddy is fairly influenced by the external supply position a reduction in cost of production can be attained only by enhancing the yield. Hence price support measures should be supplemented by other measures aimed at improving the productivity of farms.

TABLE 4.2
Average Farm Prices of Principal Commodities

| Commodity | Unit | 1978 | 1979 | Change over the previous year | |
|------------|--------------|---------|---------|-------------------------------|----------|
| | | | | Actual | Per cent |
| 1. Paddy | Rs./Quintal | 129.34 | 131.04 | + 1.70 | + 1.31 |
| 2. Tapioca | " | 31.57 | 39.33 | + 7.76 | + 24.58 |
| 3. Coconut | Rs./100 Nos. | 107.90 | 102.71 | - 5.19 | - 4.81 |
| 4. Pepper | Rs./Quintal | 1603.02 | 1422.76 | -180.26 | - 11.24 |
| 5. Ginger | " | 1028.47 | 482.05 | -546.42 | - 53.12 |
| 6. Rubber | " | 876.87 | 1009.59 | +132.72 | + 15.13 |

Note.—Figures for 1979 are provisional.

Source: Bureau of Economics and Statistics, Kerala.

4.5 After several years of consecutive rise, price of coconut showed a declining trend during the year 1979. It is this crop that generally provides the small farmers with a marketable surplus and a source for meeting their monetary needs. As in last year, the largest fall in price among farm commodities has occurred in the case of ginger. Pepper suffered an eleven per cent decline in average price while rubber had a fifteen per cent hike. The shortage in internal supply of rubber might be one of the prominent reasons for the price hike, which in turn necessitated rubber import during the year.

Farm Input Prices

4.6 There has been considerable reduction in the prices of fertilizers during the year 1978-79. In the case of urea the price could be still brought down from Rs. 1,550 to Rs. 1,450 per tonne. In respect of fertilizer complexes also the prices could be brought down considerably. The prices of insecticides and fungicides however exhibited a mixed behaviour, showing increase in some cases and reduction in others.

Climate

4.7 During 1978 the State received a total rainfall of 319.38 cm, which was 17 cm. above the normal average rainfall in the State (See table 4.3). At the same time the monthly rainfall figures show large variation from the normal values. The State experienced severe floods in November 1978. This caused damages in different parts of Kerala. Rainfall during the month of September 1978, which is the early Mundakan

crop season, was critically below normal. Sandwiched between the insufficient rains in the early stages, and floods in the later stages, the Mundakan crop season in 1978-79 was quite adverse for getting through with a successful crop of paddy. The rains received in the early periods of 1979, especially during the months of March, April and May were around or even below 50 per cent of the normal. This insufficiency in rainfall during the above crucial months is likely to produce an adverse effect on the dry land crops.

TABLE 4.3
Average Monthly Rainfall in Kerala (in m.m.)

| Month | Average Monthly Rainfall | |
|-----------|--------------------------|--------|
| | Normal | 1978 |
| (1) | (2) | (3) |
| January | 18.5 | 3.2 |
| February | 19.3 | 15.2 |
| March | 46.4 | 36.8 |
| April | 115.6 | 66.4 |
| May | 245.0 | 414.3 |
| June | 672.8 | 709.4 |
| July | 686.4 | 690.7 |
| August | 422.6 | 495.4 |
| September | 242.0 | 150.5 |
| October | 306.9 | 164.8 |
| November | 190.9 | 400.7 |
| December | 51.2 | 46.4 |
| Total | 3017.6 | 3193.8 |

Source: Bureau of Economics and Statistics, Kerala.

TABLE 4.7

Productivity of Principal Crops in Kerala

| Crop | Unit | 1977-78 | Change over the previous year | | |
|------------------------------|---------|---------|-------------------------------|---------|-----------|
| | | | 1978-79* | Actual | Per cent |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. Rice | Kg./ha. | 1540 | 1589 | (+) 49 | (+) 3.18 |
| 2. Ragi | " | 799 | NR | .. | .. |
| 3. Pulses | " | 438 | 450 | (+) 12 | (+) 2.74 |
| 4. Sugarcane (Gur) | " | 5699 | 5700 | (+) 1 | (+) 0.02 |
| 5. Pepper | " | 199 | 232 | (+) 33 | (+) 16.58 |
| 6. Ginger | " | 2534 | 2633 | (+) 99 | (+) 3.91 |
| 7. Turmeric | " | 965 | 984 | (+) 19 | (+) 1.97 |
| 8. Cardamom | " | 56 | 56 | .. | .. |
| 9. Arecanut | Nuts | 168965 | 168383 | (-) 582 | (-) 0.34 |
| 10. Coconut | " | 4533 | 4531 | (-) 2 | (-) 0.04 |
| 11. Cashew | Kg./ha. | 667 | 663 | (-) 4 | (-) 0.60 |
| 12. Banana & Other Plantains | " | 12279 | 12287 | (+) 8 | (+) 0.06 |
| 13. Tapioca | " | 14457 | 14579 | (-) 122 | (+) 0.84 |
| 14. Sweet Potato | " | 4501 | NR | .. | .. |
| 15. Groundnut | " | 1050 | 976 | (-) 74 | (-) 7.05 |
| 16. Sesamum | " | 252 | 262 | (+) 10 | (+) 3.97 |
| 17. Tea | " | 1439 | 1309 | (-) 130 | (-) 9.03 |
| 18. Coffee | " | 525 | 420 | (-) 105 | (-) 20.00 |
| 19. Rubber | " | 640 | 577 | (-) 63 | (-) 9.84 |

NR.—Not reported.

* Provisional Estimates.

Source: Bureau of Economics and Statistics, Kerala.

Productivity of Crops

4.11 Almost all the seasonal and annual crops excepting groundnut has shown improvement in productivity during the year 1978-79. Among the perennial crops pepper has registered a significant increase in productivity (16.58 per cent), while the productivity of coffee and rubber showed a substantial decline. Arecanut, Coconut and Cashew has also shown marginal decline in productivity during the year.

Rice Production

4.12 Rice production registered a decline by 1.9 per cent in the year 1978-79. The largest decline of 5.2 per cent had taken place in the case of Mundakan (Winter) crop followed by 1.4 per cent in Virippu (Autumn) crop. The Punja (Summer) crop has registered an increase by 6.5 per cent. The inter-

seasonal pattern of rice production has shown the share of Virippu season at more or less the same level as in the previous year, while the share of Mundakan season has further declined. The share of Punja season has improved considerably. However, the decline in overall production of rice in the State during 1978-79 may be due to the sharp decline in the area under rice during the year. Moreover the adverse weather conditions that prevailed during Mundakan season also affected the contribution to the total production by the Mundakan crop. It is significant to note that the shortfall in area by 41.13 thousand hectares did not lead to a proportionate shortfall in the total production of rice, but only to a lesser extent of 24.88 thousand tonnes of rice during the year. This was possible due to the increase in productivity in the Punja crop (4.2 per cent) followed by Virippu crop (3.8 per cent) and Mundakan crop (1.6 per cent).

TABLE 4.8

Area, Production and Yield of Rice in Kerala

| Season | Area (in '000 ha) | | Change in Area over the previous year (per cent) | Production (in '000 tonnes) | | Change in Production over the previous year (per cent) | Yield (kg./ha) | | Change in Yield over the previous year (per cent) |
|------------------|-------------------|------------------|--|-----------------------------|------------------|--|----------------|----------|---|
| | 1977-78 | 1978-79* | | 1977-78 | 1978-79* | | 1977-78 | 1978-79* | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Virippu (Autumn) | 365.11 (43.4) | 346.83 (43.4) | (-) 5.0 | 551.79 (42.6) | 544.17 (42.9) | (-) 1.4 | 1511 | 1569 | (+) 3.8 |

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|----------------------|-------------------|-------------------|---------|--------------------|--------------------|---------|------|------|---------|
| Mundakan (Winter) | 370.86 (44.1) | 345.78 (43.3) | (-)-6.8 | 559.19 (43.2) | 530.00 (41.7) | (-)-5.2 | 1508 | 1533 | (+) 1.6 |
| Punja (Summer) | 104.40 (12.4) | 106.68 (13.3) | (+)2.2 | 183.65 (14.2) | 195.58 (15.4) | (+)6.5 | 1759 | 1833 | (+)4.2 |
| Total | 840.37 (100.0) | 799.24 (100.0) | (-)-4.9 | 1294.63 (100.0) | 1269.75 (100.0) | (-)-1.9 | 1540 | 1569 | (+)3.2 |

*Provisional Estimates.

Note:—Figures in brackets indicate Percentage to Total
Source: Bureau of Economics and Statistics, Kerala.

High Yielding Varieties of Rice

4.13 The area under high yielding varieties of rice declined by 4.8 per cent almost reflecting the same proportion (4.9 per cent) of shortfall in the total area under rice. The proportion of the area under HYV to total area under rice, however, remained the same as in the previous year. The inter seasonal coverage of rice area under HYV is on the increase during Virippu season. The contribution from HYV to the total rice production was 43.58 per cent though the area under HYV of rice was only a little over one-third of the total area under rice. The overall productivity increase in HYV has been only marginal (0.71 per cent) due to the fact that a significant increase in productivity registered in the Punja Season (12.32 per cent) was off-set by the decline in productivity in Mundakan Season (6.61 per cent and Virippu Season 0.59 per cent). On an inter seasonal comparison, the Mundakan season during the year has registered the largest decline in area (13.01 per cent) and productivity (6.61 per cent) in HYV.

TABLE 4.9
High Yielding Varieties of Rice in Kerala

| Season | 1977-78 | 1978-79 | Proportion of HYV to Total Rice (Per cent) | |
|------------------------|---------|---------|--|---------|
| | | | 1977-78 | 1978-79 |
| Area (in hectares) | | | | |
| Virippu | 142129 | 144909 | 38.92 | 41.78 |
| Mundakan | 89565 | 77909 | 24.15 | 22.53 |
| Punja | 61599 | 56416 | 59.00 | 52.88 |
| Total | 293293 | 279234 | 34.89 | 34.93 |
| Production (in tonnes) | | | | |
| Virippu | 287710 | 291604 | 52.14 | 53.58 |
| Mundakan | 166549 | 135303 | 29.78 | 25.52 |
| Punja | 123036 | 126544 | 66.99 | 64.70 |
| Total | 577295 | 553451 | 44.59 | 43.58 |
| Average Yield (kg./ha) | | | | |
| Virippu | 2024 | 2012 | | |
| Mundakan | 1860 | 1737 | | |
| Punja | 1997 | 2243 | | |
| Total | 1968 | 1982 | | |

Note: Figures for Punja Crop (1978-79) are Provisional.

Source: Bureau of Economics and Statistics, Kerala.

4/880/MC.

Development Programmes

4.14 The major development programmes under implementation during the Fifth Five Year Plan were continued during 1978-79 also. The total number of Intensive Paddy Development (IPD) Units remained 489 with a coverage of 1.85 lakh hectares which constitute about 38 per cent of the wet land area under rice.

4.15 Even though the total number of Coconut package Units stood at the same level as in the previous year, viz. 187 with a coverage of 93.50 thousand hectares, the activities under the programme made significant progress during the year. The medium term credit distributed through co-operative societies for coconut package programme registered an increase by 187 per cent. The number of filter point tube wells has also gone up by 36 per cent in 1978-79. Considerable progress was made in the project for rejuvenation of diseased and unproductive coconut plantations. An additional area of 16,973 hectares under Coconut was brought under this programme and 70,872 hybrid coconut seedlings were distributed in this area. About 28 thousand hectares were newly brought under Cashew cultivation under the programme for bringing additional area under cashew in private sector; the achievement being 149 per cent over the previous year.

4.16 Fertilizer consumption in the State made substantial improvement by registering an increase of 22 per cent over the previous year. It is quite significant to note that the pattern of consumption of NPK remained in a healthy balanced combination as in the previous year, by retaining the off-take ratio between N. P. & K. around 2:1:1.3, while the total off-take increased considerably. The fertilizer consumption has recorded an all time high of 99,836 tonnes during the year. The largest increase has been in nitrogenous fertilizers followed by phosphatic and potassic fertilizers in that order.

4.17 Pesticide consumption in general has gone up by about 23 per cent over the previous year. The area treated with plant protection chemicals registered a decline by 9 per cent, and the area under rodent

control operation and the number of trees sprayed for control of coconut leaf disease have declined. However the area under seed treatment registered an increase by 27 per cent.

4.18 Phenomenal increase has been registered in the distribution of quality planting materials during 1978-79. The distribution of coconut seedlings increased by 7 per cent, rooted pepper cuttings by 26 per cent, cashew layers by 64 per cent, cashew seedlings

by 125 per cent, cocoa seedlings by 222 per cent, nutmeg seedlings by 56 per cent and clove seedlings by many thousand times.

4.19 Apart from the existing soil testing laboratories in six Districts in the State, two soil testing laboratories, one each in Trichur and Ernakulam Districts were started during the year. A state level Central Soil Testing Laboratory was organised in Trivandrum. One lakh soil samples were analysed in the District laboratories during 1978-79.

TABLE 4.10
Selected Indicators of Agricultural Development

| Programme | Unit | 1977-78 | 1978-79 |
|--|-----------|---------|---------|
| (1) | (2) | (3) | (4) |
| 1. Fertiliser consumption .. | Tonnes | 81560 | 99836 |
| (a) Nitrogen .. | „ | 36995 | 45690 |
| (b) Phosphorus .. | „ | 19172 | 23381 |
| (c) Potash .. | „ | 25393 | 30765 |
| 2. Plant Protection | | | |
| (a) Area under Seed Treatment .. | Lakh ha. | 1.15 | 1.46 |
| (b) Liquid Fungicides (in terms of Technical Grade) .. | Tonnes | 7 | 17 |
| (c) Liquid insecticides (in terms of Technical Grade) .. | Tonnes | 159 | 241 |
| (d) Solid Fungicides (in terms of Technical Grade) .. | Tonnes | 195 | 291 |
| (e) Solid Insecticides (in terms of Technical Grade) .. | Tonnes | 376 | 354 |
| (f) Area Treated- Area Sprayed } .. | Lakh ha. | 6.65 | 6.06 |
| (g) Rodent Control Operation | Lakh ha. | 1.15 | 0.88 |
| (h) Biological Control of Nephantis Serenopa and Salvinia—Parasites Liberated .. | Lakh Nos. | 194 | 176 |
| (i) Trees Sprayed for Control of Coconut Leaf Disease | Lakh Nos. | 40 | 36 |
| 3. High Yielding Seeds | | | |
| (a) HYV and Other Improved Seeds Distributed from Seed Farms or Government Agencies .. | Tonnes | 1379 | 1260 |
| (b) Coverage of HYV including Natural Spread .. | Lakh ha. | 2.93 | 2.79 |
| 4. Quality Planting Materials Distributed | | | |
| (a) Coconut Seedlings .. | Lakh Nos. | 10.84 | 11.59 |
| (b) Arecanut Seedlings .. | „ | Nil | .. |
| (c) Rooted Pepper Cuttings .. | „ | 11.88 | 14.95 |
| (d) Cashew Layers .. | Nos. | 15063 | 24737 |
| (e) Cashew Seedlings .. | Lakh Nos. | 24.78 | 55.86 |
| (f) Cocoa Seedlings .. | Lakh Nos. | 3.88 | 12.51 |
| (g) Nutmeg Seedlings .. | Nos. | 41027 | 63916 |
| (h) Clove Seedlings .. | Nos. | 179 | 55768 |
| 5. Farmers' Training Programme | | | |
| (a) Farmers Trained in Specialised Courses | Nos. | 80 | 79 |
| (b) Special Group Discussions held | Nos. | 15 | 20 |
| (c) Training Camps Organised .. | Nos. | 401 | 400 |
| 6. I.P.D. Programme | | | |
| (a) I.P.D. Units .. | Nos. | 489 | 489 |
| (b) Area Covered .. | Lakh ha. | 1.85 | 1.85 |

| Programme | Unit | 1977-78 | 1978-79 |
|---|-----------|---------|---------|
| (1) | (2) | (3) | (4) |
| 7. Coconut Package Programme | | | |
| (a) Coconut Package Units | Nos. | 187 | 187 |
| (b) Area Covered | '000 ha | 93.50 | 93.50 |
| (c) Demonstrations Organised | Nos. | 1864 | 1870 |
| (d) Fertilizers Distributed | | | |
| (i) Nitrogen | Tonnes | 2110 | 3451 |
| (ii) Phosphorus | " | 1480 | 2190 |
| (iii) Potash | " | 4510 | 4991 |
| (e) Medium Term Loans Distributed (through co-operative societies) | Rs. lakhs | 30.02 | 86.24 |
| (f) Filter Points Established | Nos. | 331 | 451 |
| (g) Filter Points Connected with Pumps | Nos. | 1969 | 1636 |
| (h) Wells Dug | Nos. | 1963 | 1620 |
| (i) Area Benefited | Ha. | 5950 | 7250 |
| 8. Rejuvenation of Diseased and Unproductive Coconut Plantations | | | |
| (a) Area Covered | Ha. | 8849 | 16973 |
| (b) Seedlings Distributed | Nos. | 17681 | 70872 |
| 9. Survey and Surveillance Programme | | | |
| (a) Units established | Lakh ha. | N.A. | N.A. |
| (b) Area Protected | | | |
| 10. Short Term Loans | | | |
| Amount Distributed | Rs. lakhs | 305.59 | 195.09 |
| 11. Cashew Plantation Scheme | | | |
| (a) Area Covered | Ha. | 11148 | 27810 |
| (b) Amount Disbursed as Subsidy | Rs. '000 | 1956 | 2585 |
| 12. Free Supply of Pumpsets to Panchayats | | | |
| | Nos. | N.A. | N.A. |
| 13. Tapioca Package Programme—Demonstration Plots Laid out | | | |
| (a) Pure Crops | Nos. | 698 | 611 |
| (b) Inter Crops | Nos. | 311 | 257 |
| 14. Other Items. | | | |
| (a) Student's Cultivation Programme | | | |
| (i) Institutions Participated | Nos. | 1100 | 1124 |
| (ii) Area Involved | Ha. | 230 | 290 |
| (b) Soil Samples Analysed | Lakh Nos. | N.A. | 1.0 |
| (c) Distribution of Soil Ameliorants | | | |
| (i) Calcium Carbonate | Tonnes | 4296 | 1887 |
| (ii) Full Burnt Lime | " | 11094 | 1821 |
| (iii) Dolomite | " | Nil | 2815 |
| (iv) Area Covered | Ha. | 26598 | 7449 |

NA: Not available.

Source: Directorate of Agriculture, Kerala.

Kerala Agricultural Development Project

4.20 The World Bank assisted Kerala Agricultural Development Project (KADP) involving an investment of Rs. 63 crores spread over a period of seven years from April 1977 continued its activities during 1978-79 with emphasis on improving the economic status of the small farmers. Out of the 105 Package Units (75 for coconut rehabilitation programme, 10 for coconut new planting programme and 20 for pepper rehabilitation programme) 55 units started functioning in 1978-79 besides 22 units which started

in the first year itself. Each Package Unit is provided with a team of field extension staff consisting of one Junior Agricultural Officer and 2 Agricultural Demonstrators. Inventories in the case of 37,122 farm holdings covering an area of 25,588 ha. and farm plans for 15,380 of such holdings covering an area of 11,328 ha. have been completed. Disbursement of long term loans to participant farmers continued in all the 22 units started in the first year and 39 units in the second year. The long term loan sanctioned amounted to Rs. 168.37 lakhs while the disbursement during the year amounted to Rs. 65 lakhs. Farm development

was initiated in 2004 ha. (313 ha. under coconut new planting, 537 ha. under coconut rehabilitation and 1154 ha. under pepper rehabilitation). Out of this, 196 hectares under coconut were provided with irrigation facilities [by the construction of 196 new wells, renovation of 181 existing wells and installation of 119 new pumpsets. In the irrigated coconut gardens 160 ha. were brought under cocoa and 56 ha. under fodder grass and legumes, as inter crops. To the farmers who undertook fodder cultivation, 33 cross bred cows were distributed. Quality planting materials like coconut seedlings (10 lakhs), cocoa seedlings (0.57 lakh), pepper rooted cuttings (3.87 lakhs), fodder grass slips (14.85 lakhs) and 47 kg. of fodder seeds were also distributed to the project participants for undertaking development works.

4.21 The small holder farm development programme incurred an expenditure of Rs. 42.96 lakhs and the Seed Garden Complex Project Rs. 5.37 lakhs making the total expenditure to Rs. 48.33 lakhs during the year.

Kerala State Coconut Development Corporation

4.22 The most important achievement made by the Kerala State Coconut Development Corporation in 1978-79 was the commencement of production of coconut oil and cake from the Corporation's first coconut processing complex located at Mamom in Attingal. Commercial Production of KERAGEM brand oil and cake is expected to commence from February 1980 onwards. The Corporation has acquired land for setting up the second processing complex at Chemancherry and Elathur villages in Calicut. For the purpose of procurement of raw material viz. copra the Corporation had already opened a purchase centre at Chungam in Alleppey besides the purchase centre functioning at Mamom. The Corporation plans to set up more and more processing centres in due course so that the entire copra produced in the State can be processed in the State itself. During 1978-79 the Corporation earned a sales receipt to the extent of more than Rs. 19,000. However, the Corporation incurred a net loss of Rs. 1.22 lakhs during the year.

Kerala Agro-Industries Corporation

4.23 The Kerala Agro Fruits Products, the third venture of Agro Industries Corporation, has come to limelight with the commencement of construction works for the factory complex at Punalur. The new project contemplates the processing of 450 tonnes of pineapple, 90 tonnes of mango and 20 tonnes of green pepper annually. The project involves a capital outlay of Rs. 11.3 lakhs and a working capital of Rs. 7 lakhs. The annual turnover is expected to be slightly over Rs. 32 lakhs and the gross profit Rs. 3.45 lakhs. Other ventures planned by the Corporation are a Mechanical

Compost Plant at Cochin, a Cocoa Processing unit and a Rural Industries Centre at Kadanadu in Ernakulam.

4.24 The overall performance of the Corporation during 1978-79 was not very encouraging. Sales activities recorded some modest progress though the Corporation faced a set-back in service activities during the year. The Corporation has attained considerable progress in the sale of paddy seeds. Other sales activities have also shown marginal progress. The Corporation earned considerable income from hire purchase sales while the receipts from direct sales declined to about half of that of the previous year. Sales of Kubota components have also been revived and this resulted in a receipt of Rs. 8.58 lakhs. (See Table 4.11). The Corporation incurred a loss of Rs. 20 lakhs during 1978-79.

TABLE 4.11

Activities of Kerala Agro Industries Corporation

(Rs. in lakhs)

| Activities | 1977-78 | 1978-79 |
|---|-----------|-----------|
| (1) | (2) | (3) |
| 1. Direct Sale of Agricultural Machinery and Implements | 12.97 | 6.84 |
| 2. Hire Purchase Sales | 32.59 | 65.14 |
| 3. Sale of Spare Parts | 14.39 | 14.63 |
| 4. Sale of Kubota Components and Implements | .. | 8.58 |
| 5. Sale of Fertilisers | .. | .. |
| 6. Sale of Paddy Seeds | 0.35 | 3.08 |
| 7. Sale of other Items | 0.34 | 0.58 |
| 8. Sale of Agro Chemicals | 0.60 | 0.75 |
| 9. Receipts from Hiring | 6.60 | 7.41 |
| 10. Receipt from Work Shops/Service Stations | 2.80 | 1.33 |
| 11. Repayment of Loans Issued | 28.59 | .. |
| 12. Profits before Provision for Reserves and Taxes | (-) 18.48 | (-) 20.09 |

Source: Kerala Agro-Industries Corporation.

Kerala State Warehousing Corporation:

4.25 The Kerala State Warehousing Corporation has expanded its warehousing capacity from 47,000 tonnes to 51,000 tonnes by extending its activities to one more centre during 1978-79. There has been an increase in the quantum of deposits received by 23 per cent, but the storage charges collected declined by 9 per cent. The bank advances have also declined by more than one per cent.

4.26 Having gone through a period of profitable performance for about eight years from 1970-71 the Corporation has now come to a crucial situation with a loss of about Rs. 8 lakhs. Considerable fall in receipts

from the storage charges may be one of the major reasons for the loss. (See Table 4.12). There has been some changes in the commodity pattern of the deposit received by the Corporation. During 1978-79 the share of foodgrains and sugar declined by 15 per cent and 10 per cent respectively, while that of fertilizers and cement increased by 12 per cent and 14 per cent respectively. The analysis of the commodity mix shows that the services of warehousing facility of the

Corporation were largely being utilised by the trading community rather than by the farming community. For instance, the four commodities viz., fertilizer, CARE articles, cement and sugar together accounted for more than 87 per cent, while commodities such as pepper, copra, groundnut, arecanut, cashew, cardamom, etc., accounted for only less than one per cent of the commodities received as deposits. (See Table 4.13)

TABLE 4.12

Activities of the Kerala State Warehousing Corporation

| Items | Unit | 1977-78 | 1978-79 | Actual Change | Percentage Change |
|--------------------------------|--------|-------------|-------------|---------------|-------------------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1 Deposits received | Nos. | 11,550 | 14,352 | (+)2,802 | (+)24.2 |
| 2 Deposits received (Quantity) | Tonnes | 2,21,749 | 2,83,756 | (+)62,007 | (+)27.9 |
| 3 Bank advances | Rs. | 1,82,60,700 | 1,80,22,105 | (-)2,38,595 | (-)1.3 |
| 4 Storage charges collected | Rs. | 44,22,402 | 40,09,876 | (-)4,12,526 | (-)9.3 |
| 5 Profit | Rs. | 3,51,433 | (-)8,73,177 | (-)12,24,610 | (-)348.4 |

Source: Kerala State Warehousing Corporation

TABLE 4.13

Commodity-wise deposit received by the Kerala State Warehousing Corporation

| Commodity | 1977-78 | | 1978-79 | |
|---------------------|-----------------|----------|-----------------|----------|
| | Actual (Tonnes) | Per cent | Actual (Tonnes) | Per cent |
| (1) | (2) | (3) | (4) | (5) |
| 1. Foodgrains | 43,476 | 19.59 | 14,891 | 5.25 |
| 2. Other Foodgrains | 967 | 0.44 | 138 | 0.05 |
| 3. Gram and Pulses | 2,671 | 1.20 | 4,542 | 1.60 |
| 4. Pepper | 474 | 0.21 | 809 | 0.29 |
| 5. Copra | 172 | 0.08 | 156 | 0.06 |
| 6. Groundnut | 285 | 0.13 | 134 | 0.05 |
| 7. Oil Cake | 115 | 0.05 | 1013 | 0.36 |
| 8. Arecanut | 791 | 0.44 | 611 | 0.21 |
| 9. Cashew | 7 | .. | 28 | 0.01 |
| 10. Fertilizers | 74,319 | 33.49 | 1,29,271 | 45.56 |
| 11. CARE Articles | 34,683 | 15.63 | 45,990 | 16.21 |
| 12. Cement | 11,454 | 5.16 | 55,992 | 19.73 |
| 13. Sugar | 34,576 | 15.58 | 17,471 | 6.15 |
| 14. Coffee | 1217 | 0.55 | 914 | 0.32 |
| 15. Rubber | 74 | 0.03 | 33 | 0.01 |
| 16. Cardamom | 110 | 0.05 | 16 | .. |
| 17. Miscellaneous | 16,358 | 7.37 | 11,747 | 4.14 |
| Total | 2,21,749 | 100.00 | 2,83,756 | 100.00 |

Source: Kerala State Warehousing Corporation
4/860/MC.

The Plantation Corporation of Kerala

4.27 The Plantation Corporation of Kerala Limited, fully government-owned Company was set up in 1962, with its headquarters at Kottayam. The main objectives of the Corporation are to increase the production of plantation crops and to create additional employment in the rural areas.

4.28 The Plantation Corporation at present owns seven rubber estates and three cashew estates. These states are spread over the Cannanore, Kozhikode, Trichur, Ernakulam and Quilon Districts. Total extent of the rubber plantation is 7,500 hectares and that of cashew is 4,800 hectares. Under the Kerala Agricultural Development Programme (KADP) the Corporation has taken up cashew cultivation on a large scale with World Bank assistance. In addition to this, the management of Alakode Estate (government-owned) has also been entrusted to the Corporation since 1974. There are five factories functioning under this company and the crop produced in the estates is being processed here.

4.29 The Corporation is making profit from 1973-74 onwards. The net profit for 1978-79 is Rs. 34.85 lakhs.

Small Farmer Development Programme

4.30 The SFDA/MFAL Programmes were launched to achieve a major organisational break-through in developing institutional support to help the economic emancipation of the small farmers, marginal farmers and agricultural labourers who were considered to have been left behind the mainstream of rural development. In view of the proclaimed objectives of the programme the four Small Farmers' Development Agencies functioning in Kerala have presented a modest performance during 1978-79. More than 20 thousand participants were identified and over 8 thousand members were additionally enrolled in co-operatives during 1978-79 (See Table 4.14). Compared to the previous year there has been improvement in the number of wells dug, tanks constructed and in the number of plant protection equipments distributed, while shortfalls could be noted in the installation of filter point tube wells and in the number of pumpsets distributed. The SFDA at Cannanore and Trivandrum executed a total number of 21 community soil conservation schemes while the Agencies of Trichur and Quilon covered an area of about 330 ha., under the same scheme during the year 1978-79. There was also considerable improvement in the land development works.

TABLE 4.14

Selected Indicators of the Progress of SFDA Programme

| Indicators | Unit | Achievement during 1978-79 | Cumulative till the end of December 1979 |
|--|------------------|----------------------------|--|
| (1) | (2) | (3) | (4) |
| I. General | | | |
| 1. Participants Identified | No | 20633 | 383606 |
| 2. Enrolled in the Co-operatives | .. | 8667 | 170448 |
| 3. Wells Dug/Tanks Constructed | .. | 4772 | 16406 |
| 4. Filter point Tube Wells Installed | .. | 75 | 188 |
| 5. Pumpsets Distributed | .. | 2081 | 7199 |
| 6. Petty Minor Irrigation Works | .. | 8 | 194 |
| 7. Community Irrigation Works* | ha | 82 | 386 |
| 8. Community Soil Conservation Works Executed | .. | 331 | 4332 |
| 9. Land Development Works Executed | No | 1790 | 2774 |
| 10. Bow Ploughs Distributed | .. | 3777 | 25759 |
| 11. Plant Protection Equipment Distributed | .. | 422 | 2433 |
| 12. Demonstration Plots laid | .. | 1657 | 7352 |
| 13. Milch Cattle Supplied | .. | 3128 | 12199 |
| 14. Goat Supplied | .. | 4474 | 51928 |
| 15. Bullock Carts/Bullocks Supplied | Pair | 323 | 1458 |
| 16. Calf enrolled under Calf Subsidy Programme | No | 5840 | 7540 |
| 17. Participants assisted under Rural/Village Artisan's Scheme | .. | 659 | 1249 |
| 18. Works Completed under Rural Works Programme** | .. | 2 | 2 |
| II. Strengthening of Co-operatives | | | |
| (a) * Risk Fund Contribution to Co-operatives | No. of Societies | 285 | 200 |

| | (1) | (2) | (3) | (4) |
|----------------------|-----|--------------|--------|--------|
| III. Credit | | | | |
| (a) Co-operatives | | | | |
| Short term*** | | Rs. in lakhs | 21.63 | 920.12 |
| Medium term | | „ | 106.77 | 469.64 |
| Long term | | „ | 15.04 | 141.15 |
| (b) Commercial Banks | | | | |
| Term Loans | | „ | 125.38 | 297.97 |

*Relates to SFDA, Trichur

**Relates to SFDA, Cannanore

***Relates to SFDA, Quilon

Source: SFDA Trivandrum, Quilon, Trichur and Cannanore.

4.31. Dairy and poultry enterprises are 'land saving' in nature and are complementary to the crop production sector. They help to enhance the income and reduce the level of unemployment in the farm sector. Thus it is satisfying to note that the Agencies could maintain more or less the previous year's level of achievement in the distribution of milch cattle, goats etc. The Trivandrum Agency has enrolled 5,840 farmer families under the calf subsidy programme during 1978-79. The above agency is reported to have secured first place in this programme at the national level. The SFDA's have also made some attempts to develop the local skills as is evident from the assistance extended to a large number of participants under the village/rural artisans' scheme.

4.32 Some slackening has been noted in availing institutional credit by the small farmers during 1978-79. The short term credit distributed was only Rs. 21.63 lakhs, as this scheme was operated by only one of the four SFDA agencies during the year. The commercial banks did not distribute any short term credit through these Agencies during 1978-79. But on the other hand, the term loans issued by commercial banks showed substantial improvement.

Soil Conservation

4.33 Considerable progress has been made in soil conservation programme in the State during the year 1978-79. A total area of 2,475 hectares of land was brought under effective soil conservation, of which 860 hectares belonged to Harijans and Girijans. The area so protected is inclusive of 605 hectares in the Kundah River Valley Project under a Centrally Sponsored Scheme. Compared to the previous year, the coverage of area under soil conservation has registered an increase by about 49 per cent. The investment on this programme was Rs. 62.73 lakhs, under state sector and Rs. 19.73 lakhs under central sector.

Soil Survey

4.34 Rapid Reconnaissance Soil Survey has been made in 424 thousand hectares in the command areas

and problem areas, 292 hectares in Government lands and Forest lands, and 312 hectares in other areas during 1978-79. Reconnaissance Soil Survey was conducted over 54 thousand hectares in the command areas and problem areas, 3 thousand hectares in Government lands and forest lands and 12 thousand hectares in other areas. Detailed Soil Survey was completed in 22 thousand hectares in the command areas and problem areas, 4 thousand hectares in Government lands and Forest lands and 8 thousand hectares in other areas. Compared to the previous year, the coverage of area under Reconnaissance Soil Survey and Detailed Soil Survey registered decreases of 69 per cent and 54 per cent respectively. This might be due to the substantial coverage of 1,028 thousand hectares under Rapid Reconnaissance Soil Survey. The investment on this programme was Rs. 5.08 lakhs under state sector and Rs. 2.70 lakhs under central sector.

Land Use Board

4.35 One of the significant achievements of the Land Use Board during 1978-79 is the completion of the aerial survey of the entire Idukki district. The field work in respect of Peermade taluk has also been completed, and that for Udumbanchola is in progress. The study on the possibilities of maximising returns from wet lands taken up by the Land Use Board was completed during the year and the data are being analysed. The study report on increasing land use efficiency in the command area of Periyar Valley Irrigation Project is being finalised. Other studies conducted by the Board during the year include, study on the net income from soil eroded areas of Kottarakkara and Kunnathur taluks, and study on the conversion of agricultural land for non-agricultural uses in urban areas (Corporation areas). The Board took up, also, a census of recreation facilities available in different parts of the state. Apart from these, the Board has published the following reports during the year:

- (1) Perspective Land Use Plan for Important Perennial Crops.

- (2) Report of the Reconnaissance Soil Erosion Survey in Quilon District, Volume I—Kottarakkara Taluk.
- (3) Report of the Study on Net Income in Soil Eroded Areas.

Kerala Land Development Corporation

4.36 The second phase of the Kuttanad Development Project with an outlay of Rs. 608 lakhs for construction of 600 km. of bunds, benefiting an area of about 12146 hectares was taken up by the Corporation during 1978-79. An amount of Rs. 144 lakhs was spent on the second phase for the construction of 138 km. of bunds during 1978-79. This has benefited an area of 2510 hectares.

4.37 Another major project undertaken by the Corporation is the Trichur Kole Land Development Project benefiting an area of 12505 ha. of Kole Land in Trichur, Chavakkad and Mukundapuram Taluks in Trichur District and an additional area of 3182 ha. of peripheral lands. The estimated cost of the Project is Rs. 905 lakhs of which Rs. 292 lakhs is the cost of infrastructure development to be undertaken with State Government funds. The infrastructure development includes land acquisition (Rs. 158 lakhs), construction of a major bridge (Rs. 44 lakhs) and regulators (Rs. 90 lakhs) in Trichur kole area. The balance amount of Rs. 613 lakhs to be shared by the beneficiaries, will be initially met by way of term loan from Agricultural Refinance and Development Corporation/State Bank of India. The work was started in 1978-79 and an amount of Rs. 22 lakhs was spent on it during the year. No substantial progress could be made during the year since the work could be started only towards the end of 1978-79. The preparation of a comprehensive master plan for Ponnani Kole Project to benefit 3644 ha. of kole land in Malappuram and Trichur Districts is in progress. A comprehensive project for the reclamation of about 1600 ha. of land in Kattampally in Cannanore District is under preparation.

Agricultural Marketing

4.38 Quality improvement of the consumer products through proper grading of the commodities continued to be one of the major activities of the Marketing Wing of the Department of Agriculture, during the year 1978-79. Through the four State AGMARK laboratories (one each at Trivndrum, Quilon, Alleppey and Irinjalakuda) and the three sponsored laboratories in the private sector (one each at Ernakulam, Trichur and Calicut) it has been possible to grade 6119 tonnes of articles valued at Rs. 716 lakhs during 1978-79 recording an increase of 37 per cent over the previous year. Market Surveys on pepper fruits and vegetables were also undertaken during the year.

Wynad Development

4.39 Wynad development scheme was envisaged for the integrated and overall development of Wynad area by providing electrification, minor irrigation, communication facilities and extending tribal welfare and dairy development activities etc. Efforts during the year 1978-79 were concentrated on infrastructural development like communication (roads and bridges) and minor irrigation works. During 1978-79 six minor irrigation works benefiting 191 hectares of land have been completed. Works on nine minor irrigation schemes which would provide irrigation to 381 hectares of land were in progress. About 47.1 kms. of roads and five bridges connecting important centres in the area were completed during the year. A total length of 3 kms. of the above roads has also been black-topped. Out of a total budget provision of Rs. 30 lakhs an amount of Rs. 28.95 lakhs was spent during the year.

Agricultural Credit

4.40 During the year 1978, the agricultural credit operation of the Co-operatives in the State registered modest progress. The average membership of the societies increased from 1500 in 1977 to 1642 in 1978 indicating a rise of 9.5 per cent. Correspondingly, the average share capital per society rose from Rs. 1.08 lakhs to Rs. 1.16 lakhs, registering an increase of 12.9 per cent. There has been significant improvement in the deposit mobilisation effort. The average deposit per society increased from Rs. 2.6 lakhs in 1977 to Rs. 3.4 lakhs in 1978, the percentage of increase being 32.4. Similarly, the average deposit per member showed an increase of over 20 per cent (See Table 4.15).

TABLE 4.15

Selected Indicators of the Performance of the Agricultural Credit Societies

| Indicators | As on | |
|--|-----------|-----------|
| | 30-6-1977 | 30-6-1978 |
| 1. Average membership per society (Nos.) | 1500 | 1642 |
| 2. Average share capital per society (Rs.) | 103278 | 116000 |
| 3. Average deposit per society (Rs.) | 257691 | 341000 |
| 4. Average deposit per member (Rs.) | 172 | 207 |
| 5. Average working capital per society (Rs.) | 916395 | 1000000 |
| 6. Average loan per member (Rs.) | 265 | 319 |
| 7. Percentage of borrowing member to total members | 56 | 60 |
| 8. Average loan advanced per advancing society (Rs.) | 431275 | 500000 |
| 9. Average loan advanced per borrowing member (Rs.) | 477 | 500 |
| 10. Percentage of overdue to outstanding | 30 | 29 |

Source: Registrar of Co-operative Societies, Kerala.

4.41 Loaning programme of the societies registered significant progress during 1978. It was found that the average loan per member had risen from Rs. 265 to Rs. 313 indicating an increase of 18.1 per cent. Similarly the average loan advanced per advancing society registered an increase of 22.3 per cent. As seen in Table 4.15 the average loan advanced per borrowing member increased from Rs. 477 in 1977 to Rs. 683 in 1978 indicating a significant increase of 43.2 per cent. But it was noted that there was decline in the proportion of borrowing members from 56 to 45 per cent. It was also observed that during 1978, there was a slight decline in the loans overdue, compared to the previous year.

4.42 The anticipated achievement in the issue of short term and medium term loans during 1978-79 is Rs. 85 crores and it is estimated that 70 per cent of the loans will go to the weaker sections such as small farmers and marginal farmers. The implementation of the scheme for the reorganisation of primary agricultural credit societies into 1200 fully viable societies had registered significant progress.

4.43 Selected indicators of the credit operations by agricultural credit societies are given in Table 4.16.

TABLE 4.16
Selected Indicators of the Credit Operations of the Agricultural Credit Societies

| Details | As on 30-6-1977 | As on 30-6-1978 |
|--|--------------------|--------------------|
| (1) | (2) | (3) |
| 1. Number of Societies | 1646 | 1630 |
| 2. Number of Members (In lakhs) | 24.70 | 26.76 |
| 3. Paid up Share Capital (Rs. in lakhs) | 1699.88 | 1889.84 |
| 4. Statutory Reserves (") | 213.43 | 213.57 |
| 5. Other Reserves (") | 580.49 | 691.01 |
| 6. Deposits (") | 4241.59 | 5565.37 |
| 7. Other Borrowings (") | 4703.28 | 5090.79 |
| 8. Working Capital (") | 15083.87 | 17599.23 |
| 9. Loans Advanced during the year | | |
| (a) Short Term (") | 5225.52 | 6449.80 |
| (b) Long Term (") | 1290.96 | 1944.35 |
| 10. Loans Outstanding at the End of the Year (") | 7599.20 | 8590.24 |
| 11. Loans Overdue (") | 2301.75 | 2518.75 |
| 12. Number of Societies that Worked at Profit | 912 | 905 |
| 13. Net Profit for the Year (Rs. in lakhs) | 203.95 | 242.98 |
| 14. Number of Societies that Worked at Loss | 733 | 691 |
| 15. Loss Sustained (Rs. in lakhs) | 222.07 | 307.56 |
| 16. Number of Societies Without Profit or Loss | 1 | 34 |

Source: Registrar of Co-operative Societies, Kerala.

4|860|MC.

Long Term Credit.

4.44 The Kerala Co-operative Central Land Mortgage Bank Ltd. is the apex institution for the disbursement of long term credit for agricultural development in Kerala State. At present this institution has 30 Primary Land Mortgage Banks affiliated to it and also 7 regional offices.

4.45 The disbursement of loans has increased to Rs. 979 lakhs in 1978-79 from Rs. 828 lakhs in 1977-78 (18.3 percent increase). Under ordinary loaning programme an amount of Rs. 684.73 lakhs was disbursed in 1978-79 as against Rs. 655.74 lakhs during 1977-78 registering an increase of 4.4 per cent (See Table 4.17)

TABLE 4.17
Ordinary Loaning Programmes, Kerala Co-operative Central Land Mortgage Bank

| Purpose | Disbursement of loans | |
|---------------------------------|-----------------------|---------|
| | 1977-78 | 1978-79 |
| 1. New wells | 100.72 | 90.29 |
| 2. New tanks | 29.62 | 26.79 |
| 3. Pumpsets | 27.91 | 24.58 |
| 4. Agricultural Machinery | 8.36 | 9.51 |
| 5. Repairs to wells | 32.80 | 22.34 |
| 6. Repairs to tanks | .. | 3.91 |
| 7. Persian wheels | 0.25 | 0.80 |
| 8. Field channels | 7.01 | 0.98 |
| 9. Cattle sheds and farm houses | 85.12 | 97.42 |
| 10. Pump house | .. | 3.21 |
| 11. Fencing | 49.75 | 48.69 |
| 12. Levelling and bunding | 198.03 | 198.01 |
| 13. Contour bunding | .. | 12.57 |
| 14. Terracing | 17.65 | 15.09 |
| 15. Drainage channels | 1.05 | 2.97 |
| 16. Plantations | 85.79 | 100.33 |
| 17. Prior Debts | 2.44 | 7.77 |
| 18. Others | 9.24 | 19.67 |
| Total: | 655.74 | 684.73 |

Source: Kerala Central Co-operative Land Mortgage Bank

4.46 At present the bank has 66 on-going ARDC schemes involving a financial outlay of Rs. 2724 lakhs. So far the bank has completed the implementation of 15 schemes with a total financial investment of Rs. 235.44 lakhs.

4.47 With effect from March 1979, ARDC reduced the rate of interest on its refinance assistance which resulted in a reduction on the rate of interest charged on the ultimate borrower. The prevailing rate of interest for amounts spent on minor irrigation

and land development is 9.5 per cent, and for other diversified purposes 10.5 per cent. Small farmers are charged interest at the rate of 9.5 per cent only.

4.48 The bank is entrusted with the responsibility of disbursing 50 per cent of the long term credit under the World Bank assisted Special Agricultural Development Unit programme. Out of 105 SADU package units the bank has commenced lending activities in 103 units. The bank's total share of the loaning programme in this respect works out to Rs. 20.83 crores. The development purposes served by the activities of the bank include minor irrigation, land reclamation and soil conservation, cultivation of plantations, and horticultural crops and other diversified activities such as dairying, fisheries etc.

4.49 The bank achieved remarkable progress in the recovery of loans in 1978-79. Out of 30 Primary Land Mortgage Banks, 29 have over dues below 25 per cent and are thus eligible for unrestricted lending.

Kerala Agricultural University.

4.50 The Commencement of four Departments viz. Pomology, Olericulture, Plantation Crops, and Processing Technology, under the Faculty of Agriculture in 1978-79 constitutes a major step in the research activities of the Agricultural University. The release of a semi-tall, improved rice variety "Bhadra" (M.O.4) specially suited to Kuttanad region, development of a cheap drip irrigation technique with micro tubes for economically raising vegetables and pulses in rice fallows, improvement of the technology for oil extraction from lemon grass, studies for economising the concentrate ration of dairy cows were some of the other high lights of the activities of the Kerala Agricultural University during the year.

4.51 Admissions to the under-graduate and post-graduate course in the faculties of Agriculture, Horticulture and Animal Sciences increased compared to the previous year. The details of intake of students to the various courses and the out turn of qualified personnel from the various faculties under the University are furnished in table 4.18.

TABLE 4.18

Teaching Programme of the Kerala Agricultural University

| Programme | Units | 1977-78 | 1978-79 |
|---|-------|---------|---------|
| <i>Graduate Programme</i> | | | |
| Admission to B. Sc. (Agriculture) | Nos. | 100 | 120 |
| Admission to B. Sc. (Hort.) | " | 40 | 39 |
| Admission to B. V. Sc. & A. H. | " | 54 | 61 |
| Successful Completion of B. Sc. (Ag.) | " | 77 | 78 |
| Successful Completion of B. Sc. (Hort.) | " | 20 | 19 |
| Successful Completion of B. V. Sc. | " | 20 | 38 |

| Programme | Unit | 1977-78 | 1978-79 |
|---|------|---------|---------|
| <i>Post Graduate Programme</i> | | | |
| Admission to M. Sc. (Ag.) | Nos. | 37 | 68 |
| Admission to M. V. Sc. | " | 24 | 25 |
| Admission to Ph. D (Ag. Faculty) | " | 7 | 8 |
| Admission to Ph. D (Vet. Faculty) | " | 2 | 8 |
| Successful Completion of M.Sc. (Ag.) | " | 17 | 31 |
| Successful Completion of M. V. Sc. | " | 18 | 9 |
| Successful Completion of Ph. D.(Ag.) | " | 2 | 2 |
| Admission to M. Sc. (Hort.) | " | | 14 |
| Successful Completion of M. Sc. (Hort.) | " | | 4 |
| <i>Other Special Courses</i> | | | |
| Admission to Diploma Course in Agricultural Science | | 50 | 51 |
| Successful Completion of Diploma Course | | 89 | 89* |
| Admission to Agril. Mechanical Course | | | 20 |

*Two batches admitted during the year 1976-77 came out successful only during 1978-79

Source: Kerala Agricultural University,

4.52 The milling percentage of the new rice Variety 'Bhadra' is 73.5. This variety is tolerant to brown plant hopper, blight and blast and has a duration of 145-150 days during the first crop season from April/May to August/September and 125-130 days during the main crop season of Kuttanad from August/September to February/March. Encouraging results were obtained from the breeding and selection programme for non-lodging, high yielding, semi-tall varieties of rice. Pure line selection of the local saline resistant variety "Cheruviruppu" has yielded two promising cultures (culture-74 and Culture-174) suited to deep water salinity conditions as existing in Pokkali areas. Research in water management has helped to develop cheap drip irrigation technique with micro tubes at the Agronomic Research Station Chalakudy for economically raising vegetables and pulses in rice fallows. This merits further adaptive trials under the varied agro-climatic conditions in Kerala. The improvement in the technology for oil extraction from lemongrass which is reported to increase oil recovery by 33 per cent is a significant contribution.

4.53 Research in Animal Science wing of the University found that there is scope for utilisation of unconventional feeds and agro-industrial wastes as cattle feeds. Long term study on lactation utilising 25 parts of rubber seed cake in the concentrate ration of dairy cows replacing equal parts of coconut cake has yielded encouraging results as the cost of production per kg. of milk could be reduced to Rs. 1.11 from Rs. 1.25

4.54 The Communication Centre and Central Training Institute established as part of the Directorate of Extension Education organised a

large number of training programmes for the technical personnel of the Department of Agriculture, Animal Husbandry, Dairy Development, Cardamom, Board as well as school teachers, farmers and bank officers. Workshops on (1) popular writing for farmers, (2) diseases of dairy cattle and (3) pulses production, participation in three major exhibitions, release of two hundred and ninety six news items to the press, for publication and for All India Radio for broad cast, conduct of demonstrations etc. were the highlights of the activities under Extension Education of the Kerala Agricultural University.

4.55 The Sub-project for research and training under the Special Agricultural Development Unit, entrusted with the Kerala Agricultural University came into full swing in 1978-79. During the year, 21 out of the 42 projects envisaged were started and equipment worth Rs. 28.81 lakhs were purchased. Intensive orientation training was given to 54 Junior Agricultural Officers and 96 Agricultural Demonstrators of SADU, during the year.

Central Tuber Crops Research Institute.

4.56 Under the programme for evolution of improved varieties taken up by the Central Tuber Crops Research Institute, Trivandrum, two hybrids of sweet potato H. 268 and H. 620 and two hybrids OP 1 and OP 2 raised from open pollinated progenies which were found to perform better were put under minikit trials during the year. The selections of Colocassia "Kassibugga" and "Narkatia" which were found to give high yields were put under final stages of evaluation. A study was undertaken in the Institute in collaboration with the Central Silk Board on the possibility of rearing eri silk worms on cassava leaves. The results indicated that the yield and other economic characters of the cocoons produced are comparable with those obtained from rearing on castor leaves. In-depth studies have been taken up to find out the effect of it on the yield of cassava, and the varietal reaction of cassava on the biology of silk worms. Under the Lab to Land Programme, popularisation of high yielding varieties of tuber crops and popularisation of the technology of growing groundnut as an inter crop in cassava were given accent. The Institute organised an All India Workshop on tuber crops in the Kerala Agricultural University Campus during 1979.

Central Plantation Crops Research Institute.

4.57 The Central Plantation Crops Research Institute, Kasaragode, which is entrusted with the major responsibility of research work on plantation crops like coconut, arecanut, Cashew, Cocoa and spices carried on with its research on management and control of the root (wilt) diseases of coconut, wilt of pepper and rhizome rot of ginger during the year.

4.58 The Institute has initiated and intensified research programme on the coconut root (wilt) disease and the pepper wilt disease with the assistance from the World Bank under the Kerala Agricultural Development Project. This Institute has taken up an ambitious programme to contain the coconut root (wilt) disease within the borders of the five southern districts of Kerala. A field station was established at Irinjalakuda during the year for attending to this work.

Farm Information Bureau

4.59 Farm Information Bureau continued to provide information/communication support to the Departments of Agriculture, Animal Husbandry, Dairy Development, Co-operation and other development agencies like Special Agricultural Development Unit and Kerala Land Development Corporation, Small Farmers Development Agencies, Central-Co-operative Land Mortgage Bank and Kerala State Warehousing Corporation etc.

4.60 The publication Division of the FIB has printed and distributed 1.58 lakh copies of the farm fortnightly "Kerala Karshakan", 9.55 lakh copies of information leaflets and pamphlets, and 4950 copies of the Farm Guide, during the year 1978-79.

4.61 Innovative steps of the Exhibition Division of the FIB during the year include its participation in Seminars and Kissan Melas in rural areas, establishment of a Regional Rural Exhibition Unit at Calicut and production of an instructional film on Cocoa with the help of the Kerala State Film Development Corporation. Other achievements of this division are its participation in 10 major exhibitions, 31 rural exhibitions and 10 Karshika Melas and conducting of 137 film shows.

4.62 The Field Publicity Division of the FIB continued its activities in the production of visual aids, release of display advertisements, sponsoring newspaper supplements for popularising new technology and important farm development ventures, providing programme support to Rural, Karshikarangam and Farm and Home Programmes of AIR, communication of Farm Book Corners in rural libraries and production of wall newspaper "Keralam Munnottu". During the year 1978-79 this division produced 134 display advertisements, arranged special supplement in 38 leading newspapers, organised 500 Farm Book Corners, and distributed 33000 copies of wall newspapers and 5 lakh copies of 20 different leaflets.

4.63 The Farm News over Radio, a unique programme initiated by the Farm Information Bureau to link the farmers with the various agencies working in the farm front, has caught up as a regular feature. This

programme is being broadcast from AIR Stations in Trivandrum and Alleppey from 6.45 a.m. to 6.50 a.m. every day. Evening farm news bulletins are given to AIR Stations in Trichur and Calicut daily. During 1978-79, 2011 items in the morning and 2121 items in the evening were broadcast under this programme.

Plantations

4.64 In many ways 1978-79 has not been a bright year for the plantation industry in Kerala. However the tea market began showing encouraging signs of recovery after the abolition of export duty on it. There was a shortfall in the production of rubber in the country by 8 per cent. Cardamom and coffee continued to do well, although cardamom exports appeared to be facing stiffer overseas competition. The plantation crops of Kerala accounted for 12 per cent of the total cropped area and contributed a considerable share of regional income, employment as well as foreign exchange earning of the State from the agricultural sector. In Kerala, plantation labour employed in rubber, tea, coffee and cardamom together is nearly 3 lakh workers.

Rubber

4.65 The production of natural rubber for the year 1978-79 fell short of the previous year. The output of natural rubber during 1978-79 was 1.35 lakh tonnes, i.e. 8 per cent less than the production in 1977-78. Adverse weather condition and labour unrest resulting in the loss of tapping days were the principal causes for the fall in the production. The output of all varieties rubber during 1978-79 was 1.88 lakh tonnes as against 1.96 lakh tonnes during the previous year.

4.66 Kerala accounts for 91 per cent of the total area under rubber in India. It is estimated that the area under rubber in Kerala during 1978-79 was 2.14 lakh hectares registering a marginal increase of 1 per cent over the previous year. Area and production of rubber in the State are given in Table 4.19

TABLE 4.19
Area and Production of Rubber in Kerala

| Year | Area (Hectares) | Production (Tonnes) |
|---------|-----------------|---------------------|
| 1974-75 | 202318 | 121558 |
| 1975-76 | 205389 | 128769 |
| 1976-77 | 230563 | 139343 |
| 1977-78 | 212271 | 135907 |
| 1978-79 | 214415 | 123680 * |

* Estimated

Source: Rubber Board.

4.67 The number of rubber growing units in the country recorded an increase from 140775 in 1978 to

144594 in 1979 and the corresponding area from 2.33 lakh hectares to 2.36 lakh hectares, registering an increase of 2.7 per cent in the number of units and 1.3 per cent in the area under rubber. Out of 1.44 lakh units, only 580 are large estates of 20 hectares and above in size. The remaining are small units less than 20 hectares which constitute 71 per cent of the total area under rubber in India. In Kerala also 76 per cent of the area under rubber is accounted for by holdings below 20 hectares. Large estates above 20 hectares constitute only 24 per cent. Between 1970-71 and 1978-79 the number of holdings went up steadily from 1.08 lakh to 1.40 lakh units registering 34 per cent increase but the estates above 20 hectares declined in number from 585 to 504 (14 per cent). The State-wise distribution of rubber plantation in 1978-79 is furnished in Table 4.20

TABLE 4.20
State-wise Distribution of Rubber Plantations (1978-79)

| State | Total Area (ha) | Holdings 20ha. & below. | | Estates (Above 20 ha.) | |
|-----------------------------|-----------------|-------------------------|-------------|------------------------|-------------|
| | | No. of units | Area in ha. | No. of units | Area in ha. |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Kerala | 214415 | 140306 | 161996 | 504 | 52419 |
| Tamil Nadu | 11683 | 3439 | 5166 | 45 | 6517 |
| Karnataka | 7872 | 254 | 557 | 23 | 7915 |
| Andaman and Nicobar Islands | 988 | .. | .. | 4 | 988 |
| Andhra Pradesh | 31 | 2 | 1 | 1 | 30 |
| Goa | 411 | 5 | 10 | 2 | 401 |
| Tripura | 506 | 7 | 36 | 1 | 470 |
| Maharashtra | 4 | 1 | 4 | .. | .. |
| (All India) | Total: 235910 | 144014 | 167770 | 580 | 68140 |

Source: Rubber Board

4.68 The increase in the consumption of rubber during 1978-79 was largest for any year during the last decade by 13.5 per cent over the previous year. The consumption of rubber in all India level has increased from 2.01 lakh tonnes in 1977-78 to 2.26 lakh tonnes in 1978-79. Of this, natural rubber constituted 1.60 lakh tonnes (73 per cent) Synthetic rubber 37,600 tonnes (16 per cent) and reclaimed rubber 24,330 tonnes (11 per cent). In Kerala the consumption of natural rubber has increased from 15,732 tonnes in 1977-78 to 16,990 tonnes in 1978-79 registering 7.4 per cent increase. Data on production, import, export and consumption of rubber are given in Appendix 4.6

4.69 To arrest the upward movement in price and to ensure regular supply of rubber to manufacturers the

programme is being broadcast from AIR Stations in Trivandrum and Alleppey from 6.45 a.m. to 6.50 a.m. every day. Evening farm news bulletins are given to AIR Stations in Trichur and Calicut daily. During 1978-79, 2011 items in the morning and 2121 items in the evening were broadcast under this programme.

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|-----------------------------|-----------------|-------------------------|-------------|------------------------|-------------|
| | | No. of units | Area in ha. | No. of units | Area in ha. |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Kerala | 214415 | 140306 | 161996 | 504 | 52419 |
| Tamil Nadu | 11683 | 3439 | 5166 | 45 | 6517 |
| Karnataka | 7872 | 254 | 557 | 23 | 7915 |
| Andaman and Nicobar Islands | 988 | .. | .. | 4 | 988 |
| Andhra Pradesh | 31 | 2 | 1 | 1 | 30 |
| Goa | 411 | 5 | 10 | 2 | 401 |
| Tripura | 506 | 7 | 36 | 1 | 470 |
| Maharashtra | 4 | 1 | 4 | .. | .. |
| (All India) | Total: 235910 | 144014 | 167770 | 580 | 68140 |

Source: Rubber Board

4.68 The increase in the consumption of rubber during 1978-79 was largest for any year during the last decade by 13.5 per cent over the previous year. The consumption of rubber in all India level has increased from 2.01 lakh tonnes in 1977-78 to 2.26 lakh tonnes in 1978-79. Of this, natural rubber constituted 1.60 lakh tonnes (73 per cent) Synthetic rubber 37,600 tonnes (16 per cent) and reclaimed rubber 24,330 tonnes (11 per cent). In Kerala the consumption of natural rubber has increased from 15,732 tonnes in 1977-78 to 16,990 tonnes in 1978-79 registering 7.4 per cent increase. Data on production, import, export and consumption of rubber are given in Appendix 4.6

4.69 To arrest the upward movement in price and to ensure regular supply of rubber to manufacturers the

Government of India shifted the official policy from export of rubber to import of rubber during 1978-79.

4.70 Rubber prices which were ruling at uneconomic level in 1977-78 picked up last year, following the increased demand for the commodity. Eventhough there was a fall in production, purchases of the manufacturers were increased. Government revised the minimum price of rubber with effect from 17th April 1979 and announced the floor price for RMA I-X Rs. 825 per quintal. The price in force prior to the revision was Rs. 655 per quintal. The average market price of rubber of RMA 3,4,5 at Kottayam market is given in Table 4.21.

TABLE 4.21
Average Market Price of Natural Rubber of RMA
3, 4, 5 at Kottayam

| Year | Price per Quintal (Rs.) |
|---------|----------------------------|
| 1973-74 | 515.39 |
| 1974-75 | 849.24 |
| 1975-76 | 743.62 |
| 1976-67 | 595.96 |
| 1977-78 | 632.11 |
| 1978-79 | 953.00 |

Source: Rubber Board.

4.71 In February 1979, an integrated scheme for accelerating replanting and new planting of rubber in holdings was prepared and submitted to Government of India. The Scheme provides for credit-cum-subsidy for replanting and new planting and it is under the active consideration of Government of India.

Tea

4.72 During the year 1979 tea production in South India registered an impressive increase of 8 million kg. over the previous year reaching a record level of 138 million kg. The production of tea in North India however fell by 33.21 million kg. to 407.7 million kg. and eventually there was a shortfall of 25.2 million kg. in the country's tea output in 1979 which is estimated at 545.7 million kg.

4.73 The all India production of tea in 1978 was 5.71 lakh tonnes as against 5.56 lakh tonnes in 1977 registering 2.7 per cent increase. The production of tea in Kerala is estimated at 52628 tonnes as against 51287 tonnes in 1978 accounting 2.6 per cent increase over the previous year. Even though the area under the plantation at the all India level registered an increase by 4758 hectares, in Kerala the area under the plantation registered a decrease from 36,154 hectares in 1977 to 36,150 hectares in 1978. Area and production of tea in Kerala and All India are given in Table 4.22

4/860|MC.

TABLE 4.22
Area and Production of Tea- Kerala and All India

| | Area (hectares) | | Production (Tonnes) | |
|-----------|--------------------|--------|------------------------|--------|
| | 1977 | 1978 | 1977 | 1978 |
| Kerala | 36194 | 36150 | 51663 | 51287 |
| All India | 366276 | 369033 | 556267 | 571323 |

Source: Tea Board.

4.74 Small holdings under tea upto 5 hectares comprise about 95 per cent of the total units and account for only 5 per cent of the total area under tea in the State. Large estates above 200 hectares which comprise only 0.2 per cent of the total number of holdings account for more than 70 per cent of the area under tea. Distribution of tea estates by size of holding is presented in table 4.23.

TABLE 4.23
Distribution of Tea Estates by Size of Holding
in Kerala and All India 1977-78

| Size Group | (No. of units) | |
|------------------|----------------|-------|
| | Kerala | India |
| Below 5 ha | 3889 | 10286 |
| 5 ha to 50 ha | 79 | 366 |
| 50 ha to 100 ha | 19 | 175 |
| 100 ha to 200 ha | 31 | 320 |
| 200 ha to 400 ha | 55 | 440 |
| Above 400 ha | 20 | 284 |
| Total | 4093 | 11871 |

Source: Tea Board.

4.75 The yield per hectare of tea was 1419 kg/ hectare in 1978 compared to 1427 kg/hectare in 1977 and 1319 kg/hectare in 1976. Among the South Indian States, Kerala has the lowest yield per hectare of tea. At all India level the average yield per hectare was 1548 kg. per hectare in 1978 as against 1519 kg. per hectare in 1977. Data relating to average yield of tea are given in Table 4.24

TABLE 4.24
Average Yield of Tea in Kerala and All India

| | (Yield per ha. in kg.) | | |
|-----------|------------------------|------|------|
| | 1976 | 1977 | 1978 |
| Kerala | 1319 | 1427 | 1419 |
| All India | 1405 | 1519 | 1548 |

Source: Tea Board

4.76 The tea market began showing encouraging signs of recovery after the abolition of export duty on it. Though the duty was lowered from Rs. 5 per kg. to Rs. 2 per kg. in September 1978 and subsequently abolished totally in February 1979, the residual effect of the levy was felt by the industry until the last quarter of 1979.

Coffee

4.77 The country's coffee production for 1978-79 season is estimated at 1.05 lakh tonnes comprising of 63,000 tonnes of Arabica and 42,000 tonnes of Robusta. This falls short of the last year's production by 18,000 tonnes. The coffee production for Kerala for the 1978-79 season was 21,740 tonnes as against 28465 tonnes in 1977-78, registering a decrease of 23 per cent in production. The State-wise area, production and yield of coffee during 1977-78 is given in Appendix 4.4.

4.78 The important species of coffee plantation in Kerala are Arabica and Robusta. Arabica accounted for 2,757 hectares (5.3 per cent), and Robusta 48,951 hectares (94.7 per cent) during the year 1977-78.

Arabica contributed to a production of 1,360 tonnes and Robusta 27105 tonnes, the former accounts for 4.7 per cent and the latter 95.3 per cent of the aggregate production in the State. Of the all India area and production of the crop the share of Kerala in 1977-78 in terms of area was 51,708 hectares (27.1 per cent) and in terms of production was 28,465 tonnes (22.7 per cent). The species-wise estimate of area of production of coffee in Kerala is given in Appendix 4.5.

4.79 The coffee plantations in Kerala numbered 46,424 units consisting of 17,852 registered, and 28,572 unregistered estates during 1977-78. Distribution of registered plantation by size of holdings is presented in the Table 4.25.

TABLE 4.25

Registered Coffee Plantation by Size of Holdings (1977-78)

| Size group | Kerala | | | | India | | | |
|-----------------------------|--------------|-------|-------|-------|--------------|-------|--------|-------|
| | No. of Units | % | Area | % | No. of Units | % | Area | % |
| Below 2 Ha. | 15185 | 85.1 | 15270 | 48.8 | 37637 | 73.3 | 30437 | 19.4 |
| 2-4 " | 1922 | 10.7 | 5083 | 16.3 | 7267 | 14.1 | 21049 | 13.4 |
| 4-10 " | 597 | 4.2 | 3721 | 34.7 | 4387 | 12.6 | 27808 | 67.2 |
| 10-20 " | 110 | | 1576 | | 1022 | | 15007 | |
| 20-40 " | 42 | | 1161 | | 433 | | 12708 | |
| Above 40 " | 56 | | 4496 | | 564 | | 50262 | |
| Total | 17852 | 100.0 | 31307 | 100.0 | 51310 | 100.0 | 157271 | 100.0 |
| No. of Unregistered Estates | 28572 | | 20401 | | 39462 | | 34977 | |
| Grand Total | 46424 | | 51708 | | 90772 | | 192248 | |

Source: Coffee Board

4.80 Of the registered units small holdings below 4 hectares comprised 95.8 per cent covering an area of 65.1 per cent viz., 20,701 hectares. Holdings above 40 hectares constituted only 0.3 per cent and accounted for 4,496 hectares. In India the percentage of area covered by size group below 4 hectares was 32.8% and above 40 hectare was 32 per cent.

4.81 The sale price of coffee realised from the pool auction both for internal and export markets during 1977-78 and 1978-79 are given in Table 4.26.

TABLE 4.26

Auction Sale Price of Coffee

| Grade | Price per 50 kg. | | | |
|----------------|---|---------|--|---------|
| | Internal Sales (Inclusive of excise duty) | | Export sales (Exclusive of all taxes and duties) | |
| | 1977-78 | 1978-79 | 1977-78 | 1978-79 |
| (1) | (2) | (3) | (4) | (5) |
| Plantation | 505.80 | 518.25 | 1352.50 | 1100.10 |
| Arabica Cherry | 458.00 | 440.75 | 1179.75 | 854.75 |
| Robusta Cherry | 444.75 | 394.00 | 1183.00 | 855.25 |

Source: UPASI

4.82 There has been improvement in the internal demand for coffee and the consumption within the country reached 46,028 tonnes in 1978. During the fiscal year 1978-79 a total quantity of 65,744 tonnes valued at Rs. 157.04 crores was exported from the country as against 55,827 tonnes valued at Rs. 230.46 crores during 1977-78.

Cardamom

4.83 The production of cardamom in the country during 1978-79 season is estimated at 4,000 tonnes. Kerala accounts for 60 per cent of the area and 75 per cent of the production of the crop in India. While the area at all India level remained steady at 91,476 hectares, the production of cardamom has gone up from 3,900 tonnes in 1977-78 to 4,000 tonnes in 1978-79. In Kerala there is no significant increase in area and production over the previous year. The export of cardamom was 2876 tonnes valued at Rs. 58.35 crores in 1978-79, as against 2,763 tonnes valued at Rs. 48.44 crores in 1977-78. The unit export price of cardamom realised was Rs. 202.92 per kg in 1978-79 as against Rs. 175.28 per kg in 1977-78, registering an increase of 15.4 per cent. State-wise production of cardamom is furnished in Table 4.27

TABLE 4.27
State-wise Production of Cardamom in India

| State | 1971-72 (M.T.) | % | 1977-78 (M.T.) | % | 1978-79 (M.T.) | % |
|-----------|-------------------|-------|-------------------|-------|-------------------|-------|
| Kerala | 2720 | 72 | 2900 | 74.4 | 2900 | 72.5 |
| Karnataka | 620 | 16 | 700 | 17.9 | 800 | 20.0 |
| Tamilnadu | 445 | 12 | 300 | 7.7 | 300 | 7.5 |
| Total | 3785 | 100.0 | 3900 | 100.0 | 4000 | 100.0 |

Source: Cardamom Board

4.84 Of the registered planted area under cardamom in Kerala, small holdings less than 2 hectares constituted 66.3 per cent of the total units and covered 22.5 per cent of the total area. The corresponding figures for all India level were 67.8 per cent and 20.97 per cent respectively. Holdings above 8 hectares constituting about 5 per cent of the total units accounted for 41 per cent of the area; while at all India level the corresponding percentages were 5 and 46. The distribution of registered cardamom plantations in Kerala and all India by size of holding is presented in Table 4.28

TABLE 4.28
Distribution of Registered Cardamom Estate by size of Holdings

| Size of Holdings | Kerala | | | | India | | | |
|------------------|----------------|--------|-----------|-------|----------------|--------|-----------|--------|
| | No. of estates | % | Area (ha) | % | No. of estates | % | Area (ha) | % |
| Below 2 Ha. | 12276 | 66.3 | 11980 | 22.5 | 19482 | 67.8 | 17815 | 20.9 |
| 2-4 " | 3260 | 17.6 | 9105 | 17.1 | 4977 | 17.3 | 13735 | 16.1 |
| 4-8 " | 1977 | 10.7 | 10779 | 20.2 | 2739 | 9.5 | 14792 | 17.4 |
| 8-20 " | 743 | 4.0 | 8468 | 15.9 | 1104 | 3.8 | 12833 | 15.1 |
| 20-40 " | 149 | 0.8 | 3832 | 7.2 | 255 | 0.9 | 6528 | 7.7 |
| 40-81 " | 53 | 0.3 | 2972 | 5.6 | 108 | 0.4 | 6198 | 7.3 |
| 81-202 " | 39 | 0.2 | 4810 | 9.0 | 68 | 0.2 | 8201 | 9.6 |
| 202 and above " | 5 | .. | 1315 | 2.5 | 11 | .. | 5042 | 5.9 |
| Total | 18502 | 100.00 | 53261 | 100.0 | 28744 | 100.00 | 85144 | 100.00 |

Source: Cardamom Board

4.85 The average yield of cardamom in 1978-79 stood at 52.5 kg. per hectare in Kerala as against 43.7 kg. per hectare at all India level. The higher yield in Kerala is mainly due to the result of favourable agro-climatic conditions and development programmes implemented in the State. The average price of cardamom in Kerala in 1979 was Rs. 178.71 per kg. as against Rs. 166.42 per kg. at all India level.

Land Reforms

4.86 Land reform measures introduced in Kerala mainly aimed at restructuring the land economy and achieving distributive justice to the landless rural poor. The complex tenurial relationships had undergone drastic changes with the advent of land reforms. The land legislations provided a compact legal framework which has clearly defined the tenurial rights and obligations of the landlords, conferred titles of ownership of tenanted lands to the cultivating tenants and extended social justice to all concerned, paving way for the accelerated growth of the rural economy.

4.87 As regards the implementation of tenancy reforms under the KLR Act, a total number of 36.09 lakh cases were filed till the end of November 1979 as against 35.50 lakhs till the end of November, 1978. The cases disposed by the end of November 1979 numbered 35.97 lakhs (99.6 per cent). The allowed cases comprised 24.31 lakhs, the others being either rejected or come under other disposals. The total disposed cases in the year 1978 were 35.23 lakhs, the allowed cases being 23.58 lakhs. The cases pending disposal stood at 11,653 in November 1979 as against 26,479 during the previous year. The total certificates of purchase distributed till November 1979 were 23.95 lakhs compared to 23.18 lakhs in 1978.

4.88 As far as Kudikidappukar are concerned, a total of 4.32 lakh cases were filed for Kudikidappu rights till the end of November 1979. The disposals comprised 4.29 lakhs (99.3 per cent). The corresponding positions in November 1978 were 4.21 lakh cases and 4.20 lakh cases respectively, the percentage disposal

being 99.7. The allowed cases increased from 2.60 lakhs to 2.65 lakhs over the year. The recipients of certificates of purchase numbered 2.50 lakhs in November 1979 as against 2.45 lakhs in November 1978.

4.89 The ceiling provision of the KLR Act enunciates surrender of land in excess of the ceiling limit to the State. The progress achieved in the implementation of the ceiling provision is less spectacular than that of the tenancy and Kudikidappu reforms. This is mainly attributed to legal and procedural bottlenecks. The total ceiling returns filed till the end of December 1979 numbered 64,147. The disposed cases comprised 60,313 (94.0 per cent). The position in December 1978 showed 61,851 returns filed and 56,592 returns disposed (92 per cent). Among the ceiling returns disposed, the number of cases involving surrender of surplus lands till the end of December 1979 were only 11,085. The extent of "land offered for surrender voluntarily" added up to 1.06 lakh acres in September 1979. However, the land ordered for surrender stood at 1.46 lakh acres. With the exemption of 30,386 acres of land from the purview of Government orders on the basis of stay orders from the High Court, the net area ordered for surrender was reduced to 1.16 lakh acres.

4.90 The aggregate extent of surplus land taken over till the end of December 1979 was 75,832 acres compared to 71,188 acres till the end of December, 1978. But on orders of the High Court 2,621 acres had to be reconveyed, restricting the net area taken over to 73,211 acres. Out of the remaining 42,849 acres to be taken over the actual area available for assumption is only 1,700 acres. As much as 26,115 acres are involved in cases pending with the High Court, and 15,034 acres are categorised as inaccessible on account of gifts, disputes etc.

4.91 Of the land assumed, as much as, 47,874 (65.4 per cent) acres were distributed till the end of December 1979. The total number of beneficiary families comprised 75,483. The beneficiaries consisted of 29,012 families of scheduled castes and 4,990 families of scheduled tribes. The surplus lands distributed to scheduled castes were 16,441 acres and that to scheduled tribes 4,159 acres, the two categories together accounting for 20,600 acres (43 per cent) of the total distributed area. The extent of undistributed land in December 1979 constituted 24,348 acres. This comprised 3,279 acres under stay against assignment 5,002 acres covered by gifts, disputes, etc., 14,535 acres reserved for public purposes and 1,532 acres available for redistribution.

4.92 The total extent of poramboke land available for distribution up to the end of October, 1979 was 4.33 lakh acres. Out of this 4.03 lakh acres were assigned till the end of October 1979 compared to 3.91 lakh acres till the end of November 1978. The total number

of families benefited from the distribution of poramboke lands was 4.71 lakhs. The benefited scheduled caste and scheduled tribe families numbered 83,000 (18 per cent). The total area assigned to the scheduled castes and scheduled tribes together was 59,100 acres (15 per cent). The poramboke land available for further distribution is estimated at 30,082 acres. These lands are mostly in the districts of Idukki, Cannanore, Trichur and Quilon.

4.93 The preparation of Records of Rights and updating of land records have a vital role in the context of the land reforms under implementation in Kerala, as many of the existing tenures are of oral type. Till the end of December 1979, a total extent of 13,479 sq.km. of land have been resurveyed.

4.94 The implementation of the Kerala Agricultural Worker's Act 1974 has benefited considerable number of agricultural workers. This Act envisages security of employment, fixity of working hours and payment of minimum wages to workers.

4.95 The other agrarian legislations like the Kannan Devan Hills (Resumption of Lands) Act, 1971, and the Kerala Private Forests (V & A) Act 1971 have benefited the agrarian sector significantly towards improving the agricultural economy of the State.

Livestock Development

4.96 Livestock wealth has crucial significance in the agricultural economy of the State. It helps to supplement the income and employment opportunities of the farmer, besides providing valuable organic manure for the crops. The livestock husbandry sector and the crop production activities are closely integrated and mutually beneficial. Development of animal husbandry and dairying provide rich nutritious diet to the population and draught power for agricultural operations.

4.97 As per the 1977 Livestock Census (final figures) the State had a total number of 13.65 lakh breeding cows. The improved stock comprised 6.85 lakhs (50.2 per cent). The cows in milk numbered 7.05 lakhs, (52 per cent) compared to 47 per cent in 1972 and 40 per cent in 1966 and 1961. The fairly large number of improved breeds of dairy cattle and the increasing proportion of dairy cows in milk in the State are the results of long years of systematic and careful selective breeding through artificial insemination and livestock development.

4.98 The milk production in the State in 1977-78 was estimated to be 7.38 lakh tonnes. In 1978-79 it reached the level of 7.80 lakh tonnes, registering an increase of 5.7 per cent. The estimate for 1977-78 is based on a sample survey, conducted by the State Animal Husbandry Department. The per capita

availability of milk in the State was 86 gms./day in 1970-79.

4.99 Based on the final estimates of the Livestock Census (1977), the livestock population in the State between the years 1972 and 1977 has increased from 49.36 lakhs to 53.19 lakhs, registering an increase of 7.8 per cent over the years. The poultry population has also gone up from 122.1 lakhs to 133.9 lakhs (9.7 per cent increase) over the years (The Livestock Census data from 1951 to 1977 are given in Appendix 4.11).

4.100 With a view to improving the quality of the dairy cows in the State, cross breeding programme is being implemented by the Departments of Animal Husbandry and Dairy Development and the Kerala Livestock Development and Milk Marketing Board. In 1978-79, altogether 1352 artificial insemination units were functioning in the State (663 under the Animal Husbandry Department and 689 under the Dairy Development Department). During 1978-79, the Animal Husbandry Department carried out 5.65 lakh artificial inseminations as against 4.96 lakhs in the previous year through Key Village Blocks and Intensive Cattle Development Projects. The Dairy Development Department conducted 3.15 lakh artificial inseminations through the breeding centres manned by the Cattle Improvement Assistants during 1978-79. The KLD and MM Board conducted 49,612 artificial inseminations in Idukki district during 1978-79. The calves born as a result of the inseminations in Idukki district numbered 12,111 (24.42 per cent of the total number of artificial inseminations). Altogether 9.30 lakh artificial inseminations were conducted through the three agencies in 1978-79 as against 8.37 lakh artificial inseminations in the previous year.

4.101 The KLD and MM Board is a company, fully owned by the Government of Kerala registered under the Companies Act on 14-11-1975. It has an authorised share capital of Rs. 5.0 crores. The major functions of this Board are:

- (i) providing efficient milk marketing facilities to the milk producers
- (ii) production and distribution of necessary technical inputs for milk production like semen from good quality bulls, seeds and planting materials of fodder crops and production and distribution of concentrated feed to the Dairy farmers.
- (iii) programming and monitoring the technical aspects of cattle breeding and fodder development in the State as an agency of the Government.
- (iv) carrying out operational research on cattle breeding and fodder production.

- (v) imparting training to specialists, technicians and farmers involved in livestock development.

4.102 The Board is managing the following institutions to achieve the above objectives:

- (i) dairy plants at Trivandrum (20,000 litres per day), Alleppey (3,000 litres per day) Ernakulam (10,000 litres per day), Palghat (6,000 litres per day), and Cannanore (10,000 litres per day)
- (ii) milk chilling plants at Quilon, Yeroor, Mavelikkara, Pathanamthitta, Peermade, Kattappana, Vellathuval, Munnar, Muvattupuzha, Thodupuzha, Angamali, Patticad and Chelakkara.
- (iii) cattle breeding farms at Mattupatti, Peermade, Kulathupuzha and Dhoqi.
- (iv) fodder seed farm, Chundale, (in Wynad)
- (v) L and P feed factory, Malampuzha.
- (vi) regional semen banks, cattle breeding and fodder production activities in Trivandrum, Quilon, Alleppey, Idukki and Palghat districts including the distribution of frozen semen and liquid nitrogen (L N 2)
- (vii) supply of CME processed semen to the rest of the districts in the State.

4.103 The dairies at Trivandrum, Alleppey, Ernakulam, Palghat and Cannanore and the Cattle feed plant at Malampuzha are run by the KLD and MM Board as Commercial Units. The input generating units, ie, the breeding farms, fodder seed farm and the infrastructure in the field are managed by the Board to provide insemination to the cattle and planting materials of fodder crops to the farmers.

4.104 Before the Commissioning of the dairy plants at Cannanore and Palghat, the milk marketing activities of three centres viz., Trivandrum, Ernakulam and Alleppey were under the control of the KLD and MM Board. The quantity of milk procured and distributed by the various dairies of the Board during 1977-78 and 1978-79 are given in Table 4.29

TABLE 4.29

Procurement and Distribution of Milk by KLD and MM Board

| Dairies | Procurement (*000 litres) | | Distribution (*000 litres) | |
|------------|------------------------------|---------|-------------------------------|---------|
| | 1977-78 | 1978-79 | 1977-78 | 1978-79 |
| Trivandrum | 6153 | 8211 | 6418 | 9025 |
| Alleppey | 1426 | 2213 | 1451 | 1617 |
| Ernakulam | 6721 | 6680 | 4582 | 4632 |
| Total | 14300 | 17104 | 12451 | 15174 |

4.105 The Board is producing and supplying the semen required for the cattle breeding programme in the State. During 1978-'79 the Board has produced 5.80 lakh dozes of frozen semen and 2.88 lakh dozes of CME semen. About 1.99 lakh litres of liquid nitrogen required for preserving the semen in the Cattle breeding units were also produced and supplied by the Board.

4.106 The veterinary institutions in the State in April 1979, comprised 5 veterinary poly clinics, 531 veterinary hospitals/dispensaries and 2 mobile farm aid units. In 1978-79 nearly 27 lakh animals and poultry were treated in various veterinary institutions. The vaccinations and inoculations conducted on livestock and poultry to check and control diseases were of the order of 44 lakhs. The animals slaughtered for meat purposes numbered over 6 lakhs, comprising mainly sheep and goats. In order to support and strengthen the animal health care system of the State, a veterinary biological production complex has already been established at Palode in Trivandrum district. More over, 2.47 lakh doses of vaccine against cattle diseases and 67.82 lakh doses of vaccine against poultry diseases were produced during 1978-'79.

4.107 Fodder development programmes are being implemented jointly by the KLD and MM Board and the Dairy Development Department. In 1978-'79, the rooted fodder slips produced in the farms numbered 130 lakhs and a total quantity of 4,425 kg. of fodder seeds were also produced. The production of fodder tree seedlings numbered 19,525. In order to encourage the farmers to take up fodder cultivation, subsidy is given in the form of fertilisers for the fodder plots upto 50 cents in extent set up by farmers, at the rate of Rs. 350 per acre for the first year and Rs. 100 per acre each for the second and third years. The planting materials of high yielding varieties of fodder are also distributed free of cost to the farmers. The dairy farm instructors help the farmers in setting up the fodder plots. During 1978-79, 5,805 fodder plots covering a total area of 987.28 acres have been set up.

4.108 The procurement of milk for the dairy plants and chilling plants is organised mainly on co-operative basis. The functions of organisation, supervision, control and the developmental activities relating to milk co-operatives are vested with the Dairy Development Department. Ninety-eight new primary milk co-operative societies were registered during 1978-79, bringing the total number of primary milk co-operatives in the State to 846. The 'Anand' pattern of byelaws has been accepted in the State to be adopted by Milk Co-operative Societies. The milk Co-operatives are to be reorganised in the 'Anand' model to suit the [proposed Operation Flood II Programme. Under the scheme for assistance to milk co-operatives, 100 sets of milk testing equipments have been purchased and distributed

to as many milk co-operative societies. Besides 28 milk co-operative societies have been given assistance for the construction of office building-cum-milk collection room during 1978-79. Assistance was also given to 48 societies for the appointment of paid secretaries. During 1978-79 there were 846 primary milk supply societies having a membership of 1,63,622. The co-operative milk supply unions numbering 9, comprising 392 societies, had a total membership of 5,318.

4.109 The estimate of total egg production stood at 965 million in 1978-79 as against 943 million in 1977-78. With a view to developing poultry, 5-08 lakh chicks were hatched in the departmental farms. The chicks distributed were 3.55 lakhs during 1978-79. The egg production in the departmental farms during the year reached 33.79 lakhs as against 22.70 lakhs in 1977-78.

Fisheries

4.110 The fisheries sector which supports 2.7 per cent of the total population of the State in 1977 provides a unique source of cheap protein food and valuable export earnings. In 1978--79 the State witnessed a marginal increase in production, while the export earnings from fish and fish products registered a phenomenal growth. The aggregate fish production of the State has been showing a declining trend from 1973-74. But in 1978-79 the total fish production of the State stood at 3.98 lakh tonnes as against 3.69 lakh tonnes in 1977-78 registering an increase of 7.9 per cent. However, the level of production in 1978-79. was 15 per cent less than that in 1973-74. The per capita consumption of fish during 1978-79 was estimated at 11.6 kg. per annum as against 10.9 kg. per annum in the previous year. The contribution of fisheries to State income at current prices in 1977-78 was estimated at Rs. 80 crores. In 1976-77 it was Rs. 88.4 crores. Between the years 1977-78 and 1978-79 the export earnings of the State through fish products have gone up from Rs. 77.45 crores to Rs. 94.00 crores. The State's share to the national level of marine fish production in 1978-79 was estimated at 27 per cent.

Marine Fish Production

4.111 The total marine fish landings in Kerala in 1978 were estimated at 3.73 lakh tonnes as against 3.45 lakh tonnes in the previous year. The increase over the year was 28,000 tonnes (8.1 per cent). For the country as a whole, the total marine fish production went up from 12.60 lakh tonnes to 14.04 lakh tonnes registering an increase of 11.4 per cent over the year. Kerala continued to be the leading State in the country accounting for 27 percent of the all India sea fish production, followed by Maharashtra (20 per cent). The data on the total marine fish landings in Kerala and India are given in Table 4.30

TABLE 4.30
Marine Fish Landings

(Quantity in '000 tonnes)

| Year | Kerala | India | Percentage of Kerala to India |
|------|--------|-------|-------------------------------|
| (1) | (2) | (3) | (4) |
| 1965 | 339 | 833 | 41 |
| 1970 | 393 | 1077 | 37 |
| 1973 | 448 | 1220 | 37 |
| 1974 | 420 | 1218 | 35 |
| 1975 | 421 | 1423 | 30 |
| 1976 | 331 | 1353 | 25 |
| 1977 | 345 | 1260 | 27 |
| 1978 | 373 | 1404 | 27 |

4.112 The principal marine fish species in Kerala during 1978 consisted of oil sardine, followed by prawns, mackerel and perches. Oil sardine accounted for 1.20 lakh tonnes (32 per cent of the total marine fish production) in 1978, compared to 1.17 lakhs tonnes in 1977. The increase over the year was 2.6 per cent. The average annual landings of oil sardine for the period 1969-73 was estimated at 1,50,000 tonnes. However, the average landings per annum declined to 1,12,000 tonnes during the period 1974-78, and the percentage of decrease was 25.7. The decline in oil sardines over the years could be attributed mainly to reasons of short and long term seasonal fluctuations in the occurrence of this species. As oil sardine is one of the principal species which occurs in the catches of the traditional canoes, the significant fall in the landings of this species has presumably affected adversely the economy of the canoe fishermen.

4.113. Prawns accounted for 45,000 tonnes in 1978 as against 40,000 tonnes in 1977. The percentage of

increase over the year is 12.5. Prawns represent 12.1 per cent of the total marine fish production of the State. For the period 1969-73 the average annual landings of prawns stood at 45,000 tonnes. The corresponding figure for the period 1974-78 was 51,000 tonnes, registering a percentage increases of 13.2 over the period

4.114 The landings of mackerel were estimated at 26,000 tonnes in 1978 as against 20,000 tonnes in 1977, the percentage increase being 30. Mackerel contributed to 6.9 per cent of the total marine fish landings of the State. The average annual landings of this species for 1969-73 and 1974-78 were 46,000 tonnes and 18,000 tonnes respectively, reflecting a decrease of 61.1 per cent over the two periods. However, the average annual marine fish landings of the State increased from 3,75,000 tonnes to 3,78,000 tonnes over the period. The data on annual landings of principal marine species are presented in Table 4.31

TABLE 4.31
Annual Landings of Marine Fishes in Kerala

(quantity in '000 tonnes)

| Species | 1974 | 1975 | 1976 | 1977 | 1978 |
|---------------|-------|-------|-------|-------|-------|
| Oil Sardine | 102.1 | 97.2 | 123.9 | 117.4 | 119.9 |
| Mackerel | 10.3 | 14.9 | 20.0 | 20.0 | 25.9 |
| Prawns | 60.8 | 78.0 | 34.5 | 40.3 | 45.4 |
| Other Species | 247.1 | 230.7 | 152.6 | 167.3 | 182.1 |
| Total | 420.3 | 420.8 | 331.0 | 345.0 | 373.3 |

4.115 The statistics relating to average annual sea fish production during the periods 1969-73 and 1974-78 duly eliminating the seasonal variations are given in Table 4.32

TABLE 4.32
Average Annual Sea Fish Production Compared

('000 tonnes)

| Species | Average annual production for 1969-73 | | Average annual production for 1974-78 | | Variations | |
|-------------|---------------------------------------|------------|---------------------------------------|------------|------------|------------|
| | Actuals | Percentage | Actuals | Percentage | Actuals | Percentage |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Oil sardine | 150.8 | 40.3 | 112.1 | 29.7 | (-)88.7 | (-)25.7 |
| Mackerel | 46.8 | 12.4 | 18.2 | 4.8 | (-)28.6 | (-)61.1 |
| Prawns | 45.3 | 12.0 | 51.3 | 13.6 | 6.0 | 13.2 |
| Others | 132.5 | 35.3 | 196.5 | 51.9 | 64.0 | 48.3 |
| Total | 375.4 | 100.0 | 378.1 | 100.0 | 2.7 | 0.7 |

Inland Fisheries

4.116 The inland fish production in the State in 1978-79 showed only a nominal increase. During the year it stood at 24,512 tonnes as against 24,129 tonnes in the previous year. The composition of inland fish production is shown in Table 4.33

TABLE 4.33
Species-wise Composition of Inland Fish Production

| Species | 1977-78 | | 1978-79 | |
|-------------|---------|--------|---------|--------|
| | Tonnes | % | Tonnes | % |
| (1) | (2) | (3) | (4) | (5) |
| 1. Prawns | 5106 | 21.16 | 5204 | 21.23 |
| 2. Etroplus | 2402 | 9.95 | 2638 | 10.76 |
| 3. Murrels | 2810 | 11.65 | 2752 | 11.23 |
| 4. Tilapia | 3590 | 14.88 | 3720 | 15.18 |
| 5. Catfish | 2320 | 9.61 | 2385 | 9.73 |
| 6. Jewfish | 1435 | 5.95 | 1272 | 5.19 |
| 7. Others | 6466 | 26.80 | 6541 | 26.68 |
| Total | 24,129 | 100.00 | 24,512 | 100.00 |

4.117 Usually the adult species of penaeid prawns migrate from brackish waters to the sea. Hence it is difficult to obtain fully ripe spawners of the desired species as and when required for culture operations. To overcome this constraint, countries like Indonesia and Philippines, have undertaken research activities to induce maturation of penaeid prawns in laboratories under controlled conditions and to domesticate them. The Narakkal Prawn Culture Laboratory of the CMFRI, Cochin, has disseminated the technical knowhow in this direction, and the result has been proved successful. The laboratory conducted the experiments in 1978-79 under their LAB to LAND scheme. The number of eggs spawned varied from 10,620 to 1,66,950 per spawner. The interval between the two successful spawnings was about 20 days.

Exports

4.118 The value of fish products exported from Kerala has increased from Rs. 77.44 crores in 1977-78 to Rs. 94.00 crores in 1978-79, registering an increase of 21.58 per cent. The products exported went up from 29,819 tonnes in 1977-78 to 32,301 tonnes in 1978-79, the percentage of increase being 8.32. At the all India level the sea-food export trade moved up from 65,967 tonnes valued at Rs. 180.95 crores to 86,894 tonnes valued at Rs. 234.62 crores over the year. In terms of quantity the increase was 31.72 per cent and in terms of value 29.66 per cent. Almost all the major items have registered an increase in their exports. High demand and attractive prices which prevailed

in the foreign markets, especially in Japan, contributed to the phenomenal growth of exports of fish products like frozen shrimp, frozen squids, and fresh/frozen fish from India.

4.119 Among the fish products exported from Kerala in 1978-79, frozen shrimps constitute the major item. The quantity of frozen shrimps exported during the year was, 25,816 tonnes for Rs. 81.04 crores. In 1977-78 it was 26,932 tonnes for Rs. 70.48 crores. During the year, even though there was a decline in export of this item by 1,116 tonnes, its value increased by Rs. 10.56 crores. This phenomenon was mainly because of the increase in the average price of export of frozen shrimp from Rs. 26.17 per kg. to Rs. 31.39 per kg. during the year, the increase being nearly 20 per cent. At the national level also, the average price of export of frozen shrimp has increased from Rs. 31.61 per kg. in 1977-78 to Rs. 38.07 per kg. in 1978-79, registering a 20.43 per cent increase over the year.

Kerala Fisheries Corporation.

4.120 Kerala Fisheries Corporation owns a fleet of four trawlers imported from Mexico. Two of these trawlers are of 72 ft. size and the others are of 76 ft. size. During 1978-79 each of these vessels operated on an average 108 days. The total catches of the vessels in 1978-79 amounted to 101 tonnes of fish and 84 tonnes of prawns as against the catches of 8 tonnes of fish and 38 tonnes of prawns in 1977-78. The aggregate value of fish and prawns landed by the vessels during the year accounted for Rs. 42.58 lakhs compared to Rs. 16.61 lakhs in the previous year. Both the quantity and value of fish landed by the vessels showed considerable improvement in the year. In order to expand the fishing activities of the Corporation it is proposed to introduce 8 purse-seiners. In this regard two boats have already started the fishing operations. The boats are expected to be operated from Cochin and Calicut fishing harbours.

4.121 In 1978-79, the Corporation has exported 340 tonnes of frozen shrimps valued at Rs. 155.69 lakhs whereas the exports for 1977-78 was 257 tonnes for Rs. 99.59 lakhs. The exports of the Corporation registered significant increase during the year, 32.3 per cent in quantity and 56.3 per cent in value. The distribution of fish and prawn products in the domestic market by the Corporation too showed considerable progress during the year. About 116 tonnes of fish and fish products were marketed for Rs. 6.65 lakhs in 1978-79 as against the marketing of 24 tonnes of fish and fish products for Rs. 1.30 lakhs in 1977-78. Steps are being taken to popularise the marketing of fish and fish products under the 'Cold Chain Scheme'. It is proposed to start 1,000 retail sales booths and 100 snack bars by the Corporation in a phased manner.

4.122 The sales transactions of the nylon net factory owned by the Corporation comprised 3395 kg. of nylon twines, 8141 kg. of nylon webbings, 1634 kg of polyester webbings and 5 numbers of trawl nets for Rs. 15.62 lakhs. Among the products manufactured by the factory, nylon twines constitute the only item which has less demand. A scheme for the purpose of expansion of the nylon net factory with the target of additional production of 2 tonnes of webbings per month is under implementation. Two net making machines and two bobbin winding machines have already been imported from Japan for installation in the factory.

4.123 The production and distribution of fish meal and fish oil, decreased from 57 tonnes in 1977-78 to 39 tonnes in 1978-79. The sale proceeds declined from Rs. 91,000 to Rs. 73,000 over the year. The overall performance of the Corporation during the year 1978-79 was commendable compared to the earlier years.

Refrigeration Facilities

4.124 In 1978-79 there was 220 ice plants in the State with the total production capacity of 2,283 tonnes per day, of which 201 plants with the capacity of 2,103 tonnes (92 per cent) were owned by the private sector. Out of the 91 plants with freezing facilities of 506 tonnes per day, 82 plants with the freezing capacity of 450 tonnes (89 per cent) were also controlled by the private sector. The number of plants having cold storage facilities were 119 with the storage capacity of 11,351 tonnes. Among these 95 plants with the capacity of 9,236 tonnes (81 per cent) were in the private sector. The ice storage and fresh fish storage capacity of the plants were 3,889 tonnes and 677 tonnes respectively. The refrigeration facilities available in Kerala during 1978-79 are indicated in Table 4.34

TABLE 4.34
Refrigeration Facilities in Kerala (1978-79)

| Items | Unit | Public | Private | Coopera- tive | Total |
|--------------------|--------|--------|---------|------------------|-------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| Ice Plants | No. | 17 | 201 | 2 | 220 |
| Capacity | Tonnes | 170 | 2103 | 10 | 2283 |
| Freezing Plants | No. | 8 | 82 | 1 | 91 |
| Capacity | Tonnes | 52 | 450 | 4 | 506 |
| Cold Storage | No. | 22 | 95 | 2 | 119 |
| Capacity | Tonnes | 2054 | 9236 | 61 | 11351 |
| Ice Storage | | | | | |
| Capacity | " | 705 | 3184 | .. | 3889 |
| Fresh Fish Storage | | | | | |
| Capacity | " | 584 | 93 | .. | 677 |

4/800/MC.

Fishermen Co-operatives.

4.125 The performance of the fisheries Cooperative sector in the State in 1978-79 presented a dismal picture. Compared to 1977-78, the total number of fishermen co-operatives declined from 720 to 605 in 1978-79. In 1978-79 the number of credit societies decreased from 127 to 96 and the membership fell from 24,245 to 19,876. During the year, the number of Malsya Ulpadaka Co-operative Societies declined from 575 to 492 registering a decrease in membership from 48,937 to 43,434. The number of Regional Marketing Societies stood at 17 (including the Marketing Federation) as against 18 in the previous year. But the membership has increased from 1,682 to 1,957

4.126 The paid up share capital of co-operatives as a whole showed an upward trend. In 1978-79 the total amount of paid up share capital of fishermen co-operatives was Rs. 64.32 lakhs compared to Rs. 53.08 lakhs in 1977-78. Two of the societies received a total financial assistance of Rs. 32.25 lakhs during 1978-79. The paid up share capital of MUCS increased from Rs. 8.70 lakhs in 1977-78 to Rs. 17.39 lakhs in 1978-79, registering an increase of cent per cent. Among the producer co-operatives, only 154, societies were engaged in actual fishing during the year 1978-79. They together operated 253 mechanised boats and 204 country crafts.

4.127. The fishermen producer co-operatives have proved to be ineffective to promote the socio-economic welfare of the fishermen in the State. This points out the imperative need for providing a new organisational set up for the fishermen at the village level with focus on their integrated development.

Fishermen Population and Fishing Craft

4.128 The Livestock Census 1977 shows that the fishermen population of Kerala including their dependents reached 6.62 lakhs in 1977 as against 5.51 lakhs in 1972, registering an increase of 20 per cent over the years. About 1.72 lakhs persons are engaged in actual fishing compared to 1.10 lakhs in 1972. The fishing equipment comprised 2988 mechanised boats, 32,377 traditional fishing crafts and 1,08,400 fishing gear. The increase over 1972 is 13 per cent in the case of mechanised boats and 6 per cent in respect of non-mechanised crafts. The Department of Fisheries in collaboration with the Kerala Fishermen's Welfare Corporation has conducted a socio-economic Census of fishermen in Kerala in 1979. The report of the Census is yet to be ready.

Kerala Fishermen's Welfare Corporation

4.129 The Kerala Fishermen's Welfare Corporation was formed in 1978 with an ambitious programme to

provide planned habitats to the traditional fishermen who constitute 90 per cent of the total fishermen in the State. During the year 1978-79 the Corporation has launched a housing programme with a target of 10,000 houses in the first phase costing Rs. 4,000 per house. The scheme which is to benefit the indigent fishermen envisages 50 per cent of the cost as grant from the Corporation and 50 per cent as loan at 5½ percent interest rate, from HUDCO. The amount of loan is repayable in monthly instalments over a period of 15 years. The Corporation, for the implementation of the Scheme, has availed till 1978-79 Rs. 66.50 lakhs from HUDCO as loan and Rs. 50 lakhs from State Government towards grant contribution. The scheme was launched simultaneously in all the 8 coastal districts and in Kottayam district.

4.130 It is also proposed by the Corporation to issue fishing craft and gear to the traditional fishermen on joint ownership basis. The scheme would be implemented in Trivandrum district on the basis of 15 per cent grant, 75 per cent bank loan at the DIR of 4 per cent and the balance being the equity participation by the beneficiaries. An amount of Rs. 40 lakhs has been received by the Corporation from banks for the scheme. Towards relief measures to the fishermen, like financial assistance in the case of death or accident while fishing and loss of fishing implements and houses, the Corporation spent about Rs. 2.5 lakhs in 1978-79. The Corporation also distributed a sum of Rs. 7 lakhs received from the Centre in 1978-79 towards extending relief measures to fishermen who were victims of natural calamities in 1978.

Forests

4.131 The forests in Kerala occupy an area of about 9,345 sq.km. This area constitutes nearly 24 per cent of the geographical area of the State. Kerala contributes approximately 1.4 per cent to the total area under forests in India.

4.132 The forest area in Kerala has been declining over the years. The same trend holds good for the rest of the country as well. A number of factors like diversion of forest land for agriculture, irrigation and power projects, industrial establishments, roads, tribal colonies, settlement of evicted persons, besides the indiscriminate private encroachments account for the depletion of the forests.

4.133 Forests, as a productive unit form a major source of revenue in many Indian States, Kerala providing the most striking example in this field. The forests of Kerala have enormous potential for promoting the economic development of the State, which has

already a good concentration of forest-based industries to its credit. Besides providing raw materials for industrial development, the forests contribute fuel for domestic consumption, prevent soil erosion in hilly tracts and exercise control over the ecological system, influencing the flora and fauna of the land.

4.134 Proper development and utilisation of forest resources also helps to create new avenues of employment. Forestry operations are generally labour-intensive, and hence they generate direct as well as indirect employment to a large number of people. It is roughly estimated that about 2 lakhs of persons are engaged in forestry and logging operations, and timber based industrial activities.

4.135 The contribution of forests to the State Income (at current prices) was Rs. 42.11 crores in 1977-78 as against Rs. 25.73 crores in 1976-77, the increase over the year being 64 per cent.

4.136 At the end of March 1978, the extent of forest plantations, according to the revised estimates stood at 1.32 lakh hectares. This increased to 1.36 lakh hectares by the end of March 1979, registering a rise of 3 per cent over the year. The area under principal species of forest plantations are shown in Table 4.35

TABLE 4.35
Area under Principal Species of Forest Plantations

| Species | Area in hectares | | Increase/Decrease over the year |
|----------------------------|------------------|-----------------|---------------------------------|
| | As on 31-3-1978 | As on 31-3-1979 | |
| (1) | (2) | (3) | (4) |
| 1. Teak | 68511 | 71075 | 2564 |
| 2. Softwood | 21634 | 22362 | 728 |
| 3. Jungle wood (Hard wood) | 1592 | 1738 | 146 |
| 4. Cashew | 3795 | 3859 | 64 |
| 5. Rosewood | 79 | 93 | 14 |
| 6. Eucalyptus | 31051 | 31791* | 740 |
| 7. Mahagony | 242 | 242 | .. |
| 8. Bamboo | 955 | 955 | .. |
| 9. Wattle | 652 | 652 | .. |
| 10. Sandal Wood | 3 | 3 | .. |
| 11. Kongu | 20 | 20 | .. |
| 12. Balsa | 93 | 113 | 20 |
| 13. Cardamom | 41 | 41 | .. |
| 14. Pine | 429 | 429 | .. |
| 15. Pepper | 98 | 98 | .. |
| 16. Mixed Plantations | 1290 | 1290 | .. |
| 17. Chinnamon -Zylonicum | 4 | 4 | .. |
| 18. Others | 1321 | 1456 | 135 |
| Total | 131821 | 136231 | 4410 |

* Includes Eucalyptus, planted under fuel wood scheme also.

4.137 The forest plantations are found to occupy 14.5 per cent of the total area under forests in the State. Of the total area under forest plantations 52.2 per cent

was covered by teak. This was followed by eucalyptus (23.3 per cent) and softwood (16.4 per cent). All other species together shared the remaining area (8.1 per cent).

4.138 The sales value of timber for the year 1978-79 indicated an increase of 9.2 per cent, compared to the previous year. But there was fall in the sale proceeds of firewood and charcoal (3.7 per cent), livestock (82.9 per cent) and other items (1.0 per cent). However, the total sale proceeds for the year 1978-79 registered an increase of 7.7 per cent compared to the previous year. Table 4.36 shows the sale proceeds of timber and other forest produce.

TABLE 4.36

Sale Proceeds of Timber and Other Produce (Rs. '000)

| Item | 1977-78 | 1978-79 | Increase/Decrease over the year | |
|------------------------|---------|---------|---------------------------------|------------|
| | | | Actual | Percentage |
| (1) | (2) | (3) | (4) | (5) |
| 1. Timber | 258344 | 282206 | 23862 | 9.2 |
| 2. Firewood & charcoal | 15764 | 15185 | (579) | (3.7) |
| 3. Livestock | 333 | [57 | (276) | (82.9) |
| Other Items | 21112 | 20399 | (213) | (1.0) |
| Total | 293553 | 318347 | 22794 | 7.7 |

Note: Figures in brackets indicate decreases.

4.139 For the development of infrastructure in the forest areas, new roads were formed over a distance of 15 km, and remetalling was done over the roads to a distance of 16 km. Moreover, one bridge, 22 culverts and 44 buildings (including 21 buildings for officers' quarters) were constructed during the year under report.

4.140 In view of the gradual depletion of forests over the past years, the present forest policy of the State emphasizes more on production forestry, than conservation forestry. It is against this background, the Kerala

Forest Development Corporation and the Kerala Forest Research Institute have come into existence.

4.141 The Forest Development Corporation was set up in January 1975, with an authorised capital of Rs. 10 crores. The paid up capital of the Corporation, at the end of 1978-79 was Rs. 2.30 crores. It has so far received financial assistance of Rs. 3.21 crores from the Government of Kerala and Rs. 0.93 crore from the Government of India. Long-term loan to the tune of Rs. 4 crores is expected to be received from the Agricultural Refinance and Development Corporation and State Bank of Travancore. The main objectives of the Corporation include the enhancement of timber and pulpwood production to meet the requirements of pulp and paper industry, enhancement of production of raw materials for wood based industries, promotion of integrated development of forest plantations, better development and utilisation of forest resources like 'minor forest produce', and provision of more benefits and better services to the socially backward.

4.142 The on-going projects of the Corporation are: (1) Pulpwood project (2) Matchwood project (3) Cardamom project and (4) Firewood distribution scheme.

4.143 The projects proposed to be taken up for implementation are: (1) Kanni Elam Project (2) Nelliampathy Cardamom Project (3) Tea Project and (4) Wood Industries Complex. Till the end of 1978-79 the Corporation has planted 5,588 hectares of pulpwood and 557 hectares of matchwood.

4.144 The Kerala Forest Research Institute, set up during the year 1975-76, is engaged in studies on timber and timber based industries, besides doing applied research on subjects closely related to the forestry of this State. The studies are aided by the State Government and other agencies like the Food and Agricultural Organisation. Two sub centres of this Institute for conducting research on Teak Plantations, and Wild Life are functioning at Nilambur and Thekkady respectively.

CHAPTER 5

IRRIGATION AND POWER

Irrigation

In consonance with the national objective Kerala also lays greater emphasis on agricultural production. The total cultivated area in the State is 29.50 lakh hectares as of March 1979. The Second Irrigation Commission has assessed the irrigation potential of the State at 16 lakh hectares (net) or 27 lakh hectares (gross). Till the end of March 1979 the total area brought under irrigation in Kerala is hardly 4.2 lakh hectares (gross) which is less than 16 per cent of the total potential. In 1978-79 only 2 per cent could be added to the gross irrigated area in the State.

5.2 During 1978-79 it was possible to extend irrigation facilities to 19,778 hectares (net) or 37,601 hectares (gross) as against 14,674 hectares (net) or 28,930 hectares (gross) during the previous year. The physical target for the year 1978-79 was 42,515 hectares (gross). In the year 1978-79 the plan outlay for irrigation is Rs. 41 crores and the expenditure has been Rs. 39.21 crores. For an expenditure of 94 per cent of the Plan outlay the physical achievement was 88 per cent of the target.

Major and Medium Irrigation Projects

5.3 It is estimated that 5.8 lakh hectares (net) or roughly 14 lakh hectares (gross) can be brought under irrigation through major and medium irrigation projects. During 1978-79, 13,656 hectares (net) or

31,041 hectares (gross) has been added to the irrigated area as against the target of 35,000 hectares (gross). With this the cumulated gross area under irrigation as of March 1979 is 2.87 lakh hectares, which is less than 21 per cent of the total irrigable area through such schemes. The share of ten completed projects is 1.47 lakh hectares (gross). Pamba (9493 ha.), Periyar Valley (5447 ha.), Chitturpuzha (2969 ha.), Kanjirapuzha (4608 ha.), Kuttiadi (4824 ha.) and Pazhassi (3770ha.) irrigation schemes contributed to the additional gross ayacut brought under irrigation during 1978-79. It is expected that the on-going schemes would add about 3.34 lakh hectares to the gross irrigated area in the coming years.

5.4 Upto March 1978 the investments on major and medium irrigation projects was Rs. 141 crores. During 1978-79 Rs. 34.79 crores has been further invested as against a plan outlay of Rs. 35.35 crores. During the year out of the total expenditure, Rs. 29.24 lakhs was spent on investigation and research and Rs. 49.35 lakhs was spent on completed projects. The total investment, on major and medium irrigation schemes till March 1979 was 12 per cent of the plan expenditures.

5.5 The physical achievement during the year was 89 per cent of the target and the expenditure incurred was 98 per cent of the outlay. The details of the physical and financial achievements of the major and medium irrigation projects are given in Table 5.1.

TABLE 5.1

Major Irrigation Projects—Achievement during 1978-79

| Name of Project | Command area (in hectares) | | Physical achievement during 1978-79 (in hectares) | | Cumulative total at the end of 1978-79 (in hectares) | | Expenditure during 1978-79 (Rs. in lakhs) |
|-------------------------------|-------------------------------|---------------|---|-----------|--|---------------|--|
| | Net | Gross | Net | Gross | Net | Gross | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| A. Completed Projects: | | | | | | | |
| 1. Chalakudy | 27680 | 39380 | Nil | Nil | .. | 27258 | 0.682 |
| 2. Peechi | 25500 | 23168 | " | " | .. | 23918 | 0.113 |
| 3. Malampuzha | 29463 | 42090 | " | " | .. | 40208 | 15.227 |
| 4. Neyyar | 16042 | 17952 | " | " | .. | 15966 | 12.79 |
| 5. Pothundy | 8792 | 10930 | " | " | .. | 10046 | 8.33 |
| 6. Cayathri | 7651 | 10930 | " | " | .. | 10114 | 11.183 |
| 7. Walayar | 4536 | 6470 | " | " | .. | 6500 | .. |
| 8. Vazhani | 7668 | 7130 | " | " | .. | 4226 | .. |
| 9. Mangalam | 4816 | 6880 | " | " | .. | 6608 | .. |
| 10. Cheerakuzhy | 2268 | 2828 | " | " | .. | 1746 | 1.008 |
| Total | 134416 | 167758 | .. | .. | .. | 146596 | 49.333 |

TABLE No. 5.1—Contd.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | Expenditure during 78-79 upto end of 31-3-1979 (Rs. in lakhs) (8) | Expenditure from 4/79 upto end of 12/79 (Rs. in lakhs) (9) |
|--------------------------------------|----------|----------|-------|-------|-------|----------|---|--|
| B. On-going Projects : | | | | | | | | |
| 1. Kallada | 88087 | 105200 | Nil | Nil | Nil | Nil | 798.77 | 424.53 (upto end of 11/79) |
| 2. Pamba | 17806 | 41683 | 4057 | 9493 | 9781 | 22887 | 405.85 | 248.20 |
| 3. Periyar | 36500 | 85600 | 2095 | 5447 | 21611 | 26188 | 415.93 | 264.66 |
| 4. Chitturpuzha | 17287 | 32550 | 1596 | 2969 | 16656 | 30980 | 142.34 | 101.06 |
| 5. Kanjirapuzha | 9713 | 21863 | 2048 | 4608 | 2048 | 4608 | 373.95 | 248.57 |
| 6. Kuttiadi | 25495 | 31161 | 2010 | 4824 | 9070 | 21768 | 425.38 | 236.50 |
| 7. Pazhasi | 22255 | 32374 | 1850 | 3700 | 1850 | 3700 | 483.62 | 263.17 |
| 8. Muvattupzha | 20880 | 52200 | .. | .. | .. | .. | 122.98 | 116.91 |
| 9. Chimony | 13000 | 26200 | .. | .. | .. | .. | 101.62 | 74.68 |
| 10. Attappady | 5187 | 6200 | .. | .. | .. | .. | 59.49 | 65.25 |
| 11. Karapuzha | 5580 | 9300 | .. | .. | .. | .. | 61.37 | 53.17 |
| 12. Meenachil | .. | 10000 | .. | .. | .. | .. | 0.099 | 0.44 |
| 13. Idamalayar | 13659 | 20200 | .. | .. | .. | .. | 9.103 | 2.01 |
| Total B. | 273449 | 474531 | 13656 | 31041 | 61016 | 140131 | 3400.502 | 2099.15 |
| C. Research and Investigation | | | | | | | 29.24 | 20.90 |
| Total | 4,07,865 | 6,42,289 | 13656 | 31041 | .. | 2,86,727 | 3479.09 | 2120.05 |

Source: Office of the Chief Engineer, Projects, Public Works Department, Kerala.

Minor Irrigation

5.6 The uneven distribution in rainfall, unreliability of monsoons and the undulating topography of the State restricts the irrigation potential through major and medium irrigation schemes. To correct these mal-adjustments it has been estimated that the potential area that can be brought under irrigation through minor irrigation schemes is 10.2 lakh hectares (net) or 13 lakh hectares (gross). Of this by March 1978, 1.07 lakh hectares (net) or 1.26 lakh hectares (gross) has been brought under irrigation. During the year 1978-79 an additional net area of 6,122 hectares corresponding to 6,560 hectares (gross) could be brought under irriga-

tion. The gross area under minor irrigation as of March 1979 is 1.33 lakh hectares which is about 10 per cent of the potential. In the year 1978-79 more than 50 per cent of the developed irrigation potential is through M.I. Class II works (66,479 hectares). The lift irrigation schemes cover 35,474 hectares which is about 27 per cent of the total irrigated area. The total investment till March 1978 on M.I works was Rs. 29.71 crores. During 1978-79 Rs. 4.42 crores has been invested. The investments till the end of March 1979 was 2.3 per cent of the total plan expenditure. The physical achievement is about 87 per cent of the target and expenditure is 78 per cent of the outlay. The details of physical and financial achievements are given in Table 5.2.

TABLE 5.2

Physical Achievements in Minor Irrigation

| Type of Minor Irrigation Scheme | Achievement in hectares during 1978-79 | | Total at the end of 1978-79 | | Amount invested (Rs. in lakhs) |
|---------------------------------|--|-------|-----------------------------|--------|--------------------------------|
| | Net | Gross | Net | Gross | |
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. Minor Irrigation Class I | 265 | 398 | 14489 | 21884 | 441.6831 |
| 2. Do. II | 3952 | 3952 | 66479 | 66479 | |
| 3. Lift Irrigation | 610 | 915 | 23649 | 35474 | |
| 4. Others (I. P. D. DFG etc.) | 1295 | 1295 | 8895 | 8895 | |
| Total | 6122 | 6560 | 113512 | 132732 | 441.6831 |

Source: Chief Engineer, Minor Irrigation, Public Works Department, Kerala.

Flood Control and Anti-Sea Erosion

5.7 The special characteristics of the State in respect of its undulating topography, high density of population and high incidence of rainfall call for special attention in the matter of flood control. The damages caused by the floods in 1961, 1962, 1974 and 1978 were particularly severe causing heavy losses to agricultural lands and public properties and human lives. For finding a permanent solution to the flood problem, flood control works are being carried out. Till March 1978 the amount invested for flood control works is Rs. 518.45 lakhs. About 57 km. of embankments and 6 km. of drainage channels were constructed to protect about 14,000 hectares of land.

5.8 During 1978-79, 5.6 km of embankments were constructed to benefit an area of 1686 hectares. The investment during the year was Rs. 77.36 lakhs as against an outlay of Rs. 66 lakhs. The physical achievement during the year was beyond the target but lower than the achievement during the previous year. Up to March

1979, the investment has been 0.4 per cent of the total plan expenditures.

5.9 Kerala has a coast line of 562 km of which about 320 km. is subject to severe erosion and requires protection. Till March 1978 an amount of Rs. 28 crores has been invested to protect 190.46 km. of coast line. During 1978-79 an additional 17.77 km of coast line has been protected with an investment of Rs. 547 lakhs. The State investment on Anti-sea erosion works till March 1979, is 2 per cent of the total plan expenditure. The physical achievement is above the target and the expenditure is less than 90 per cent of the outlay (Rs. 634 lakhs). The total length of coast line protected by March 1979 is 208.23 km, which is 65 per cent of the total coast line requiring protection.

5.10 The physical and financial achievements for the year 1978-79 in respect of flood control and Anti-sea erosion works are given in Table 5.3.

TABLE 5.3

Flood Control and Anti-Sea Erosion

| Classification of the Scheme | Benefits during 1978-79 | Amount invested (Rs. in lakhs) |
|---|-------------------------|-----------------------------------|
| A. Flood Control: | | |
| 1. Construction of embankment (Km.) | 5.622 | 77.359 |
| 2. Length of drainage channel constructed (Km.) | Nil | |
| 3. Village protected (Nos.) | Nil | |
| 4. Town protected (Nos.) | Nil | |
| 5. Area benefited (Ha.) | 1686 | |
| B. Anti-Sea Erosion: | | |
| 6. Coast line protected (Km.) | 17.77 | 547.201 |

Power

5.11 Power is one of the few sectors where considerable investments have been made during the past plan periods. As of March 1979, out of the State plan expenditure of Rs. 1478 crores, the investment in the power sector was Rs. 419 crores or 28 per cent of the total plan investments to date. As a result of the sizeable investments in the power sector during the successive plan periods the installed power generation capacity has recorded an impressive growth from 132.5 MW in 1960-61 to 1011.5 MW in 1978-79. Power generation has moved from 591 MKwh to 5190 MKwh during this period. The per capita consumption of power has increased from 30 Kwh to 96 Kwh in this period.

5.12 The main source of electric power in the state is hydro and it is estimated that Kerala has 3000 MW of hydel potential at 60 per cent load factor which can be economically developed. So far the State has harnessed only one third (1011.5 MW) of this potential through eleven completed projects. As of March 1979 the State has eight power projects at various stages of implementation which when completed will add 600 MW to the power generation capability of the State, (excluding Idukki Stage II which adds peaking power potential) and 2350 MKwh to the energy generation capability. The details of investment on power generation, transmission, distribution and rural electrification during the successive plan periods are given in Table 5.4.

TABLE 5.4
Plan 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 part 1957-58 to 1960-61 | 883.82 | 798.68 | 258.18 | .. | 1940.68 |
| III Plan | 4750.01 | 1084.47 | 232.87 | 2.13 | 6069.48 |
| Annual Plans (1966-67 to 1968-69) | 2857.07 | 1280.64 | 49.98 | .. | 4187.69 |
| IV Plan (1969-70 to 1973-74) | 6676.33 | 4667.20 | 138.86 | 361.33 | 11843.72 |
| V Plan (1974-75 to 1977-78) | 6162.26 | 4757.31 | 1135.56 | .. | 12055.13 |
| 1978-79 | 964.74 | 2061.00 | 263.72 | .. | 3289.46 |
| Total till March 1979 | 24631.54 | 14759.25 | 2124.64 | 363.46 | 41878.89 |

** Under this column the investment on inter state transmission lines under centrally sponsored schemes and REC works are included.

5.13 It is found that nearly two-thirds of the investment on power was spent on generation schemes. However, it is obvious that the internal utilisation of power has not risen to match the power generation capability, and in 1978-79 it is hardly 50 per cent of the energy potential created. Since the investments on transmission and distribution has been less than what is required for fuller utilisation of the power generation capability of the State, from the annual Plan for 1978-79, onwards higher emphasis has been placed

on investments in these areas. Of the total investment of Rs. 3289.46 lakhs on power development during 1978-79, Rs. 2324.72 lakhs (nearly 71%) has been invested on transmission, distribution and rural electrification.

Generation

5.14 The power generation capability of the various completed power projects in the State and the actual generation of power in 1978-79 are shown in Table 5.5.

TABLE 5.5
Power Projects in Kerala

| Project | Installed capacity | | Energy potential MKwh | Units generated MKwh |
|------------------|--------------------|---------|--------------------------|-------------------------|
| | in M.W. | in MKwh | | |
| (1) | (2) | (3) | (4) | (5) |
| 1. Pallivasal | 37.5 | 328.50 | 284.7 | 226 |
| 2. Sengulam | 48 | 420.48 | 182.2 | 166 |
| 3. Neriamangalam | 45 | 394.20 | 236.6 | 291 |
| 4. Panniar | 30 | 262.80 | 148.9 | 73 |
| 5. Peringalkuthu | 32 | 280.32 | 171.7 | 247 |
| 6. Sholayar | 54 | 473.04 | 233.0 | 232 |
| 7. Sabarigiri | 300 | 2190.00 | 1213.3 | 1337 |
| 8. Kuttiyadi | 75 | 657.00 | 245.2 | 251 |
| 9. Idukki | 390 | 3416.40 | 2015.0 | 2367 |
| | 1011.5 | 8422.74 | 4730.4 | 5190 |

Source: Kerala State Electricity Board

5.15 During 1978-79 the power generated in the State was 5190 MKwh as against 4471 MKwh during 1977-78. Of this the power consumption within the State was 2331 MKwh in 1977-78 and 2410 MKwh during 1978-79, an increase of hardly 3.5 per cent. The State sold 1605 MKwh in 1977-78 and 2097 MKwh during 1978-79 to neighbouring states, an increase of over 30 per cent. The balance is mainly accounted by losses which is 19 per cent in 1977-78 and 28.5 per cent in 1978-79 with internal consumption as base.

5.16 The following power generation schemes are in various stages of development;

(i) *Idamalayar Hydro-electric Scheme.*

5.17 The 75 MW Idamalayar project is a low head hydro-electric scheme with multipurpose utility for irrigation, industrial and domestic water requirements, salinity control in the lower reaches of Periyar and generation of power. The project was commenced in 1969, and it is expected that the first unit can be commissioned by March 1982 and the second unit will be ready by August 1982. This would add 20 MKwh firm power per annum to the generation capacity in the State.

5.18 The works on the Dam which were stopped from 9-6-1979 for the monsoon break could not be resumed for want of settlement of various issues and long term agreement between the contractors and the labourers. As of December 1979, the total quantity of concrete poured in the dam, is 67945 m³ against the total quantity of 9 lakhs m³. The up-to-date progress in power tunnel driving is 1061 m. as against the total of 1730 m. Out of the total 28500 m³ of excavation for the surge shaft, quantity done till December 1979 is 7450 m³. Civil works in respect of Power House and approach roads are in progress.

5.19 During 1978-79 the actual expenditure on the project was Rs. 399 lakhs as against a plan provision of Rs. 500 lakhs. The cumulative expenditure on the project till March 1979 was Rs. 1739.37 lakhs and the revised total cost of the project is Rs. 5000 lakhs.

(ii) *Idukki Stage III.*

5.20 This is an augmentation scheme aiming at diversion of Kallar and Erattayar waters to Idukki reservoir for increasing the power generation capability of Idukki hydro-electric scheme by 376 MKwh of energy per annum. The scheme was started in 1975-76 and the project is to be commissioned by August 1980.

5.21 In respect of the Erattayar-Idukki tunnel the progress of work as on December 1979 is 3760m as against the total length of 3803m. This work would have been completed but for the labour problems. So far 10942 m³ of earth work excavation and 8061 m³

of rock excavation in Erattayar Dam were done. In Kallar-Erattayar tunnel only 488 m length were driven, out of the total length of 2965 m. The land required for the Kallar dam works has also been taken possession of. The work has to be arranged afresh as the earlier contract has been terminated.

5.22 The latest revised cost of the project is Rs. 996 lakhs of which Rs. 359 lakhs has been invested till 1977-78. The expenditure during 1978-79 was Rs. 226 lakhs as against a provision of Rs. 350 lakhs.

(iii) *Sabarigiri Augmentation*

5.23 This is a diversion scheme to install a generation capacity of 14.5 MW corresponding to 130 MKwh per annum, to the energy availability in the power system in Kerala. The scheme was started in 1974 and it is proposed to complete the scheme by January, 1981.

5.24 As of December 1979, 453 m³ of masonry and 700 m³ of concrete have been completed in Gavi Dam. 17100 m³ of earth work and 750 m³ of rock for foundation excavation in Kullar Dam have been completed. In respect of Gaviar-Meenar I tunnel, the up-to-date progress achieved is 330 m as against the total length of 2104 m. Also the diversion of waters to Kakki reservoir commenced from May 1979 onwards.

5.25 Up to 1977-78 the investment made on the scheme was Rs. 186 lakhs against a revised cost of Rs. 323 lakhs. During the year 1978-79 the expenditure on the scheme was Rs. 70 lakhs against a provision of Rs. 100 lakhs.

(iv) *Silent Valley Hydro-electric Scheme*

5.26 The Silent Valley Hydro-electric Scheme is located in Palghat District and it contemplates the utilisation of the waters of Kunthipuzha, a tributary of Bharathapuzha. This scheme would add 120 MW during the first stage and raise the total installed capacity of power generation in the state by the second stage through 240 MW. The energy potential will be 522 MKwh per annum when the scheme is completed. The scheme was commenced in 1973, but was slowed down due to paucity of funds in the initial stages and later due to objections raised regarding the disturbance of the ecology of the area. The scheme is scheduled to be completed by 1985-86.

5.27 The estimated cost of the project is Rs. 5800 lakhs and the investments made till March 1979 is Rs. 204.43 lakhs. During 1978-79 the expenditure on the project has been Rs. 81 lakhs as against a plan provision of Rs. 25 lakhs. The additional investment was mainly by diverting funds from the other power generation schemes.

(v) *Kakkad Hydro-electric Scheme*

5.28 This scheme is a tail race development of existing Sabarigiri Power Station in Pamba basin. The scheme would add 30 MW of firm power to the existing power system in the State and the plant capacity will be 70 MW. It can generate 260 MKwh of energy through two generating sets. The project was taken up for implementation in 1978-79 and scheduled for completion by March 1984. The capital cost of the scheme is Rs. 1860 lakhs. During 1978-79 an amount of Rs. 51 lakhs was spent on the scheme as against a plan provision of Rs. 78 lakhs.

(vi) *Idukki Stage II*

5.29 The Idukki Stage II Scheme envisages the installation of three additional generating units of 130 MW each in the Idukki underground power station to meet the peaking needs of the power system in the State. During the first stage of Idukki most of the civil works for the second stage were also completed. As of December 1979, preconstruction survey, construction of access roads, buildings etc., are in progress. Contracts for the inter connecting tunnel and power tunnel has been awarded. Preliminary works on Moozhayar diversion dam have been started. The project is estimated to cost Rs. 2418 lakhs. During 1978-79 there was no specific plan provision for the scheme.

(vii) *Lower Periyar Hydro-Electric Scheme*

5.30 This scheme in Periyar basin will utilise the tail race waters of the upper power stations to produce 70 MW of firm and plant capacity will be 130 MW power. This would add 615 MKwh of energy to the power system in Kerala. The scheme was started in 1978-79. The estimated cost of the scheme is Rs. 5862 lakhs and during 1978-79 the expenditure on the scheme has been Rs. 20 lakhs.

(viii) *Kuriarkutty—Karappara Hydro-Electric Scheme*

5.31 This scheme comprises of three power stations utilising the waters of Karappara, Pulikalar and Kuriarkutty rivers - all tributaries of Chalakudy river. The firm power potential of the scheme is 37 MW and the plant capacity will be 100 MW. On completion of the scheme the energy availability in the State will be raised by 325 MKwh. The scheme is estimated to cost Rs. 4855 lakhs. The preliminary works were started during 1978-79. In addition to above schemes, during 1978-79, further works on the completion of the replacement of the sixth unit in Sabarigiri were implemented.

Survey and Investigation

5.32 During 1978-79 investigations were continued on seventeen new schemes which are likely to be undertaken in future. In addition, collection of data with regard to hydrological and meteorological aspects of all river basins was also continued during 1978-79.

Transmission

5.33 To give a spurt to satisfying internal demand the Sixth Plan (1978-83) lays higher emphasis on transmission. In the first year of this plan period, viz., 1978-79, the investment on transmission was Rs. 1155 lakhs against an outlay of Rs. 1400 lakhs, while the expenditure during 1977-78 was Rs. 1096 lakhs. During 1978-79 the proposed targets were addition of 2 Nos. of 220 K.V. Substations, 5 Nos. of 110 K.V. Substations, 11 Nos. of 66 K. V. Substations and extension of 110 K.V. lines by 181 ct. km. and 66 K.V. lines by 137 ct. km. Achievements during 1978-79 were completion of 122 ct. km. of 110 K. V. lines and 37 ct. km. of 66 K.V. lines. The shortfall was mainly due to acute shortage in the supply of steel required for the transmission towers and the substation structures.

TABLE 5.6
Progress of Achievements on Transmission

| Particulars | End of 4th Plan as on 31-3-1974 | 5th Plan as on 31-3-1978 | Position as on 31-12-1979 |
|----------------------|------------------------------------|-----------------------------|------------------------------|
| (1) | (2) | (3) | (4) |
| 1. 220 K. V. Lines | Ct. Km. 316.4 | 853.77 | 853.77 |
| 2. 110 K. V. Lines | Ct. Km. 1350.0 | 1403.45 | 1525.00 |
| 3. 11/66 K. V. Lines | Ct. Km. 1711.0 | 1840.89 | 1972.51 |
| 4. 11 K. V. Lines | Km. 9447.0 | 12176.00 | 12893.43 |
| 5. L. T. Lines | Km. 20968.0 | 37190.00 | 41973.53 |

| | (1) | (2) | (3) | (4) |
|---------------------------------------|-----|--------|---------|---------|
| 5. Step up Transformer Capacity MVA | | 717.5 | 1149.6 | 1149.6 |
| 6. No. of E. H. T. Sub-Stations | | 59 | 75 | 85 |
| 7. Step down Transformer Capacity MVA | | 1269.0 | 1753.5 | 2429.5 |
| 8. Distribution Transformers | | | | |
| (a) Nos. | | 8285 | 8650 | 9296 |
| (b) Capacity — K.V.A. | | 566260 | 823744 | 884738 |
| 9. No. of Villages electrified | | 1173 | 1224 | 1268 |
| 10. No. of Consumers | | 77030 | 1072123 | 1270922 |
| 11. No. of Street lights | | 273587 | 284483 | 317492 |
| 12. No. of Irrigation Pumpsets | | 37611 | 58922 | 71761 |

Source: Kerala State Electricity Board

Distribution and Rural Electrification

5.34 The Sixth Plan (1978-83) lays emphasis on distribution and rural electrification also. During 1978-79 the expenditure was Rs. 785 lakhs as against an outlay of Rs. 1025 lakhs. The targets for 1978-79 were giving one lakh service connections, putting up 18,000 street lights and energising 15,000 agricultural pumpsets. The achievement during the period were connecting 99,625 consumers, raising 17,717 street lights and energising 7318 irrigation pumpsets. The shortfall was due to shortages in supply of steel and aluminium conductors.

5.35 The number of domestic consumers as of March 1979 is 8.3 lakhs, which is hardly 19 per cent of the total number of households in the State. The total number of electrical connections as of March 1979 is 11.7 lakhs. The number of applications pending for connection as of March 1979 is over one lakh and as of June 1979 it is 1,22,177.

5.36 The district wise distribution of pumpsets energised in the state as on March 1979 are given in Table 5.7. There had been net addition of 7318 pumpsets energised during 1978-79, and the total number of pumpsets energised by March 1979 was 66,240.

TABLE 5.7
Pumpsets Energised—District-wise

| District | No. of Pumpsets Energised | |
|------------|---------------------------|-----------------|
| | as on 31-3-1978 | as on 31-3-1979 |
| (1) | (2) | (3) |
| Trivandrum | 548 | 733 |
| Quilon | 493 | 639 |
| Kottayam | 1312 | 1692 |
| Idukki | 600 | 829 |
| Alleppey | 2627 | 2625 |
| Ernakulam | 16841 | 17869 |
| Trichur | 24894 | 28270 |
| Malappuram | 2820 | 3160 |
| Palghat | 6513 | 7627 |
| Kozhikode | 478 | 579 |
| Cannanore | 1736 | 2187 |
| Total | 58922 | 66240 |

Source: Kerala State Electricity Board

5.37 As of March 1979 out of 1268 revenue villages in the State, 1248 were electrified. But it is seen that more than 10 per cent of the inhabited Karas/Desoms are yet to be electrified in the sense that at least one electric line touches the village.

Power Consumption and Revenue Realised

5.38 The energy consumption within the State during 1978-79 was 2410 Mkwh (53 per cent of the energy sold) or 46.4 per cent of the total energy generated during the year. Eventhough industrial consumers account for about 72 per cent of the total energy con-

sumed internally, the revenue collected is only 53 per cent of the total internal revenue. The per unit revenue realisation from high voltage and extra high voltage consumers was 12.2 Ps. and medium and low voltage consumers was 19.7 Ps. from this class of consumers. At the same time domestic consumers form 70 per cent of the total internal consumers and account for 11.6 per cent of the total energy consumed internally. The revenue collected from domestic consumers comes to more than 20 per cent of the total internal revenue, the per unit realisation being as high as 31.1 Ps. The composition of consumer consumption of electricity and the revenue collected are given in Table 5.8.

TABLE 5.8

Electrical Energy Consumed and Revenue Realised (1978-79)

| Category | No. of consumers | % to total | Energy Consumed | | Revenue Collected | |
|---|------------------|------------|-----------------|------------|-------------------|------------|
| | | | MKwh | % to total | Rs. lakhs | % to total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. Industrial High Voltage and EHT and Low and Medium Voltage | 30578 | 2.61 | 1739.0 | 72.17 | 2266.6 | 53.26 |
| 2. Domestic Lights and Fans, Heat and small power | 829818 | 70.77 | 280.2 | 11.63 | 871.8 | 20.48 |
| 3. Commercial Lights and Fans, Heat and Small Power | 243820 | 20.81 | 142.9 | 5.93 | 592.7 | 13.92 |
| 4. Others (Excluding Export) | 68112 | 5.81 | 247.4 | 10.27 | 525.0 | 12.34 |
| Total | 1171728 | 100.00 | 2409.5 | 100.00 | 4256.1 | 100.00 |

Source: Kerala State Electricity Board

5.39 The energy sold to the neighbouring states is 40.4 per cent of the total energy generated (about 47 per cent of the energy sold) and the per unit revenue realisation is 14 Ps. More than 13 per cent of the energy generated has not subscribed to the revenue, a large part of it being losses in transmission and distribution.

Financial Position of the Kerala State Electricity Board

5.40 The gross revenue of the State Electricity Board increased from Rs. 57.09 crores in 1977-78 to Rs. 84.22 crores in 1978-79, while the net operating surplus went up from Rs. 15.40 crores to Rs. 36.25 crores during the same period. During 1978-79 increase in revenue was 47.5 per cent and the increase in net operating surplus was 135 per cent over the previous year. The receipts by sale of electricity increased from Rs. 51.76 crores in 1977-78 to Rs. 72.01 crores in 1978-79, an increase of 39 per cent only. As for

receipts from internal sales the increase was from Rs. 31.64 crores in 1977-78 to Rs. 42.55 crores, an increase of 34.5 per cent. The expenditure of the Board (excluding interests) was Rs. 41.69 crores in 1977-78 and Rs. 47.97 crores in 1978-79 an increase of 15 per cent for a 3.5 per cent increase in internal consumption of power.

5.41 The total capital investment stood at Rs. 388 crores in 1978-79 (a net increase of Rs. 28 crores over the previous year) and the total loans outstanding at Rs. 311 crores (a net increase of Rs. 20 crores). Loan repaid during the year 1978-79 amounted to Rs. 2.38 crores. The total interest payable during the year was Rs. 19.46 crores and the amount available for repayment of interest during the year was Rs. 41.62 crores. (See Appendix 5.3). The return on investment before interest was 9.3 per cent during the year 1978-79. This was mainly made possible by larger sales of electricity to the neighbouring states.

CHAPTER 6

INDUSTRY

An Overview

The industrial production in India recorded a rate of growth of 6.9 per cent in 1978 compared to 5.2 per cent in 1977. This growth in industrial output was shortlived and it slackened in the first half of 1979. The deceleration in industrial production was derived from infrastructural inadequacies which were evident for some time. A significant deterioration in the availability of power and in regard to transport and the overall labour situation appear as the principal reasons for the decline in the growth of industrial output in 1979. The incidence of industrial sickness was particularly high in the case of cotton and jute textiles and sugar and engineering industries. This calls for suitable measures by the Government and financial institutions to tackle the problem.

6.2 The programme of setting up district industries centres envisaged in the Industrial Policy Statement of December 1977 of the Government of India made significant progress during 1978-79. By the end of 1978-79, 346 district industries centres had been sanctioned as against 180 envisaged originally for 1978-79. The total industrial finance sanctioned and disbursed by the term-lending institutions stood at Rs. 1,255 crores and Rs. 879 crores respectively. The assistance disbursed during the year was 36 per cent more than that in 1977-78.

6.3 In Kerala, the State Government accepted a proposal in 1979 for introducing a new package of assistance to large and medium scale units in the State and announced a set of measures comprising (i) developed lands (ii) State investment subsidy (iii) contribution to the cost of preparation of feasibility reports/project reports, (iv) interest free sales tax loan, and (v) exemption from payment of electricity duty. Government also constituted an Inter Agency Co-ordination Group to assist entrepreneurs for the speedy implementation of their projects. During the year 1978-79 many companies in which Government either hold the entire equity or a majority of the equity registered progress either by making profits as against losses in the previous years or reduced substantially the losses. The overall performance of the Corporations such as Kerala State Industrial Development Corporation, Kerala State Textile Corporation, Kerala State Electronics Development Corporation was encouraging and units assisted by them showed improvement in 1978-79. The subsidiary companies of the Kerala State Industrial Enterprises also showed improvement

during the year. The loss incurred by the six subsidiary companies together declined from Rs. 179.30 lakhs in 1977-78 to Rs. 145.64 lakhs in 1978-79. Value of production of these companies rose from Rs. 855.68 lakhs in 1977-78 to Rs. 1214.38 lakhs in 1978-79. The value of production and sales of the Kerala Minerals and Metals Limited, which is outside the management of the Kerala State Industrial Enterprises, increased significantly and the unit earned a net profit of Rs. 10.70 lakhs during 1978-79. The expansion of the mineral separation plant and the establishment of the Rs. 65 crore titanium dioxide pigment plant by the Company are progressing fast. The working of the Traco Cable Company, Transformers and Electricals Kerala and Forest Industries (Travancore) Limited under the group of Government majority companies during 1978-79 was also quite encouraging. Each one of them made profit. The net loss of Travancore Cochin Chemicals alone came down to Rs. 134.24 lakhs in 1978-79 from Rs. 258.68 lakhs in the previous year. Consequently the total net loss incurred by the companies in this group (Government Majority Concerns) declined significantly from a level of Rs. 139.82 lakhs in 1977-78 to Rs. 5.94 lakhs during 1978-79. Production and sales of this group of companies together stood at a level higher than that of the previous year. The performance of the Government of India companies in the State was also gratifying during 1978-79. Fertilizers and Chemicals, Travancore, Indian Rare Earths and Cochin Refineries attained record levels of production during the year. The Fertilisers and Chemicals, Travancore, Hindustan Insecticides and Indian Telephone Industries, Palghat unit were running on loss. The loss of the Fertilizers and Chemicals Travancore came down to Rs. 554 lakhs in 1978-79 from a level of Rs. 886 lakhs in 1977-78.

6.4 A large segment (about 16 per cent) of the State's workforce is dependent on traditional industries like coir, cashew, and handloom. These industries are confronted with a number of continuing problems. In the cashew industry a major problem is the inadequate availability of raw cashewnuts for the processing units in the State. This industry alone employs 1.2 lakh factory workers in the State. While the State is making efforts at bringing more area under cashew cultivation, it is important that the Cashew Corporation of India should assist by procuring larger quantities of raw nuts from East African countries. In the case of coir industry also, which employs around 5 lakh workers, there is the problem of shortage of raw material viz. raw husk. Both these industries suffer from lower wages in the

neighbouring States and the consequent shift of production units and transfer of raw materials correspondingly to such States. Renewed efforts have to be made at providing adequate supplies of raw materials for these industries. In the case of handloom industry, it is expected that the setting up of two intensive development projects at Cannanore and Trivandrum and an Export Production Project at Cannanore will have a beneficial effect. The industry has for a long time been facing annual accumulation of unsold stocks and unstable price of cotton yarn. A review of the strategies adopted in these three traditional industries viz. coir, cashew and handloom is urgently called for.

6.5 The State Khadi and Village Industries Board has initiated a programme for provision of employment to about one lakh persons in selected village industries with financial assistance from Khadi and Village Industries Commission, the State Government and nationalised banks.

6.6 The State is yet to achieve the desired rate of growth in the sphere of modern small scale industries. A number of institutional agencies like the Kerala Financial Corporation, the Kerala Small Industries Development and Employment Corporation, the Kerala Industrial and Technical Consultancy Organisation and the Small Industries Service Institute are rendering services to the intending entrepreneurs. The State has also offered a package of incentives to promote rapid industrialisation. A recent addition to the promotional agencies is the District Industries Centres. These centres are expected to serve as focal points for the development of small and village industries and arrange to supply all the services required for their development.

Joint Stock Companies

6.7 There were 1,573 Joint Stock Companies in the State as on 31-1-1978, comprising 466 Public Limited Companies and 1,107 Private Limited Companies. During 1978-79, seventy-four joint stock companies were newly registered with the Registrar of Companies. Of this six were public limited companies. Eleven private limited companies were wound up during the year. With the registration of two more Government companies in 1978-79, the total number of Government companies in the State rose to 71 of which 34 were public limited companies and 37 were private limited companies. Among the two newly registered Government companies, one is a public limited company, (Malabar Cements Limited) and the other a private limited company (Foam Mattings India Limited). The total number of joint stock companies as on 31-3-1979 stood at 1,622, composed of 472 public limited companies and 1,150 private limited companies. The details relating to joint stock companies at the end of 1978-79 are given below:—

4/860]MC.

| | Public | Private | Total |
|---|--------|---------|-------|
| 1. Total number of joint stock companies in Kerala as on 31-3-1978 | 466 | 1107 | 1573 |
| 31-3-1979 | 472 | 1164 | 1636 |
| 2. No. of companies newly registered during the year ended 31-3-1979 | 6 | 68 | 74 |
| 3. No. of companies gone into liquidation during the year ended 31-3-1979 | 2 | 11 | 13 |
| 4. No. of companies actually dissolved during the year | .. | 11 | 11 |
| 5. No. of Government companies registered up to end of 31-3-1979 | 34 | 37 | 71 |
| 6. No. of Government companies registered during the year ended 31-3-1979 | 1 | 1 | 2 |

Working Factories

6.8 The increasing trend in the number of working factories in the State was maintained during the year 1978 also. As on 31st December, 1978 there were 7,784 registered working factories in the State, employing 2,72,397 workers. During the year the total number of factories increased by 159 over that of 1977. In percentage terms this increase was about 2 per cent. The district-wise distribution of registered working factories as at the end of 1977 and 1978 is furnished in Table 6.1.

TABLE 6.1

Registered Working Factories in Kerala

| District | Number of Working Factories as at the end of | | Variation |
|---------------|--|---------------|-----------|
| | December 1977 | December 1978 | |
| (1) | (2) | (3) | (4) |
| 1. Trivandrum | 295 | 303 | (+) 8 |
| 2. Quilon | 800 | 787 | (-) 13 |
| 3. Alleppey | 561 | 580 | (+) 19 |
| 4. Kottayam | 616 | 619 | (+) 3 |
| 5. Idukki | 123 | 114 | (-) 9 |
| 6. Ernakulam | 1059 | 1249 | (+) 190 |
| 7. Trichur | 884 | 876 | (+) 8 |
| 8. Palghat | 746 | 816 | (+) 70 |
| 9. Malappuram | 149 | 169 | (+) 20 |
| 10. Kozhikode | 1189 | 1172 | (-) 12 |
| 11. Cannanore | 1208 | 1099 | (-) 109 |
| Total | 7625 | 7784 | (+) 159 |

Source:—Bureau of Economics and Statistics, Kerala.

6.9 Significant increase in total number of factories has been recorded in Ernakulam and Palghat Districts. In Cannanore, however, there was notable decrease in the number of factories. It is found that at the end of 1978 the average daily employment in all the registered working factories decreased by 13,189 over that of the previous year, mainly due to the fall in employment in cashew industry. The fall in employment was of the order of 4.6 per cent. Noticeable fall in employment was recorded in the Districts of Quilon, Trivandrum, Cannanore and Alleppey. (See Appendix 6.1). Among these districts, in Quilon the decrease in employment was in the order of 10,457 compared to the previous year. This decrease could be attributed to the reduction of employment in cashew industry during 1978. At the end of 1977 there were 113,544 workers engaged in the cashew industry in Quilon district alone. But at the end of 1978, there were only 1,03,519 cashew workers in Quilon district.

Large and Medium Industries.

6.10 The public sector manufacturing concerns in Kerala can be divided into two categories, viz., (i) the Government owned companies, all the shares of which are fully owned by the State Government and (ii) the Government majority companies in which the State Government held more than fifty per cent of the shares.

Government Owned Companies

6.11 The major Government owned industrial concerns are:

1. Kerala Ceramics, Kundara
2. Kerala Electrical and Allied Engineering Company, Mamala.
3. Kerala Minerals and Metals, Chavara.
4. Kerala Premo Pipe Factory, Chavara.
5. Kerala Soaps and Oils, Kozhikode.
6. Kerala State Drugs and Pharmaceuticals, Kalavoor, Alleppey.
7. Sitaram Textiles, Ponkunnam, Trichur.
8. Travancore Plywood Industries, Punalur.
9. Trivandrum Rubber Works, Chackai, Trivandrum
10. Trivandrum Spinning Mills, Balaramapuram.

6.12 Among the ten companies listed above, Kerala Ceramics, Kerala Electrical and Allied Engineering Company, Kerala Soaps and Oils, Kerala State Drugs and Pharmaceuticals, Travancore Plywood Industries and Trivandrum Rubber Works are being managed by the holding company, the Kerala State Industrial Enterprises Limited, set up by the State Government in 1973. The Holding Company is taking active steps towards revitalisation of its subsidiary companies. Its efforts during 1978-79 have helped to bring about an overall improvement of the operations of the subsidiaries.

6.13 The value of production of the six subsidiaries under the holding company has shown improvement. From a level of Rs. 855.68 lakhs in 1977-78 the value of production has gone up to Rs. 1214.38 lakhs in 1978-79. The sales turnover has also increased from Rs. 908.11 lakhs in 1977-78 to Rs. 1210.12 lakhs in 1978-79. The overall loss of the subsidiary companies has come down to Rs. 145.64 lakhs in 1978-79 from Rs. 179.30 lakhs in 1977-78. The Kerala State Drugs and Pharmaceuticals Limited could maintain its profit earning capacity during 1978-79 also, eventhough the net profit of the Company was only Rs. 2.26 lakhs compared to Rs. 4.45 lakhs in 1977-78. The Kerala Soaps and Oils Limited, till now a losing concern, has turned the corner with a marginal net profit of Rs. 0.36 lakhs in 1978-79. The net loss of the Company in 1977-78 was Rs. 16.25 lakhs. The other four subsidiary companies under the holding company were incurring losses during 1978-79. However there is a decline in their losses. The loss incurred by the Trivandrum Rubber Works Limited was Rs. 49.35 lakhs in 1978-79 compared to Rs. 59.19 lakhs in 1977-78. In the case of Kerala Ceramics Limited the loss declined from Rs. 53.51 lakhs to Rs. 46.53 lakhs. The loss of Travancore Plywood Industries marginally declined from Rs. 10.69 lakhs to Rs. 9.70 lakhs. The Kerala Electrical and Allied Engineering Company Limited incurred a loss of Rs. 42.68 lakhs compared to Rs. 44.11 lakhs in 1977-78. Some of the salient features of the six subsidiary companies under the Kerala State Industrial Enterprises Limited are furnished in Table 6.2.

TABLE 6.2
Statistics Relating to the Operations of the Six Subsidiary Companies of the Kerala State Industrial Enterprises Limited

| Company | Paid up capital 1978-79 | No. of employees as on 31st March 1979 | 1977-78 | | 1978-79 | | Management fees received in 1978-79 |
|---|-------------------------|--|---------|-----------------|---------|-----------------|-------------------------------------|
| | | | Sales | Net Profit/Loss | Sales | Net Profit/Loss | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 1. Kerala Ceramics Ltd. | 107.95 | 611 | 86.93 | 53.51 | 100.47 | (-)46.53 | 24,000 |
| 2. Kerala Electrical and Allied Engineering Co., Ltd. | 105.82 | 554* | 215.63 | (-)44.11 | 253.63 | (-)42.68 | 24,000 |

(Rs. in lakhs)

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|---|-----|--------|------|--------|------------|---------|------------|---------|
| 3. Kerala Soaps and Oil: Ltd. | | 149.97 | 420 | 165.56 | (-)-16.25 | 268.82 | (+)0.36 | 24,000 |
| 4. Kerala State Drugs and Pharmaceuticals Limited | | 95.00 | 282 | 170.01 | (+)4.45 | 273.52 | (+)2.26 | 24,000 |
| 5. Travancore Plywood Industries | | 13.58 | 499 | 162.93 | (-)-10.69 | 111.81 | (-)-9.70 | 24,000 |
| 6. Trivandrum Rubber Works Limited | | 168.69 | 204 | 107.00 | (-)-59.19 | 168.77 | (-)-49.35 | 24,000 |
| Total | | 666.01 | 2768 | 908.11 | (-)-179.30 | 1210.12 | (-)-145.64 | 144,000 |

* Last year's figure retained

6.14 The Kerala State Detergents and Chemicals, Limited and Super Clays and Minerals Mining Company Limited are two companies which are managed by the holding company. The Kerala State Detergents and Chemicals has completed work relating to the first phase. Trial production was started in May 1979. The Company's products are well received in the market. The Super Clays and Minerals Mining Company is a private company managed by the Kerala State Industrial Enterprises Limited. This unit has made a net profit of Rs. 0.57 lakh in 1978 as against Rs. 0.12 lakh in 1977.

6.15 The general progress achieved by the subsidiary companies of the Kerala State Industrial Enterprises Limited, in the implementation of their development projects is detailed below:—

(i) Steps have been taken for the implementation of the second phase of the detergent plant of the Kerala State Detergents and Chemicals Limited. Civil construction has commenced and imported plant and machinery are expected shortly.

(ii) The Mazzoni plant of Kerala Soaps and Oils Limited has started production giving 100 per cent production of rated capacity during 1978-79. The Rs. 28 lakh Glycerine Project which was under trial run has gone into commercial production.

(iii) Work has already commenced for the implementation of Rs. 500 lakh Vitamin "A" project of the Kerala State Drugs and Pharmaceuticals Limited.

(iv) Arrangements are being made to implement a journal lubricating pad project costing Rs. 21 lakhs in Trivandrum Rubber Works for the manufacture of 250,000 numbers of journal lubricating pads for the Indian Railways.

(v) The project for the manufacture of 250,000 sq. metres of decorative veneer plywood is being implemented in Travancore Plywood Industries Limited at a capital cost of Rs. 24 lakhs.

(vi) A comprehensive development scheme for the Kerala Ceramics Limited has been prepared for

enhancing the kiln capacity of the porcelain division, providing balancing equipment for kaolin plant and development of new mines which will enable the company to utilise its full capacity of both kaolin and porcelain divisions.

(vii) The galvanising plant of the Kerala Electrical and Allied Engineering Company has been commissioned in September 1978.

(viii) It is proposed to establish a clay complex with a total cost of Rs. 400 lakhs at Cannanore for the manufacture of glazed wall/floor tiles and stoneware pipes.

6.16 The authorised share capital of the holding company has been enhanced from Rs. 5 crores to Rs. 8 crores during 1978-79. At the end of 1978-79 the entire amount of Rs. 537.11 lakhs allotted to the holding company by the State Government as share capital had been released to its subsidiaries as interest free loan and share capital. The State Government has been requested to provide additional funds in order to enable the companies improve their production. The holding company has been nominated by the Government of India as the agency for operating the Air Cargo Complex at Trivandrum and designated as the agency for canalising export of vegetables. The Government of India has also conferred on it the status of a certified export house. The export sales by the Company has however decreased from Rs. 64.83 lakhs in 1977-78 to Rs. 52.18 lakhs in 1978-79. The amount received by the Company from its subsidiaries as management fees was of the order of Rs. 1.68 lakhs in 1978-79 as against Rs. 2.92 lakhs in 1977-78. The Company however could earn a net profit of Rs. 0.11 lakh during 1978-79 as against Rs. 0.09 lakh in the previous year.

6.17 Among the remaining Government owned companies which are outside the management of the holding company, the Kerala Mineral and Metals Limited had a better performance in 1978-79. Production of minerals in this unit in 1978-79 was 26,775 tonnes valued Rs. 69.68 lakhs as against 25,024 tonnes in 1977-78. Sale of all minerals except

ilmenite was also high. Sales of zircon alone went up from 419 tonnes to 1146 tonnes. Though there were increases in the cost of raw materials and stores and spares and fall in the sale of ilmenite, the company could earn a net profit of Rs. 10.70 lakhs during 1978-79 as against Rs. 9.16 lakhs in 1977-78. The company is now engaged in the expansion of the Mineral Separation Unit, for which acquisition of certain plants is being considered. Acquisition of land for the Rs. 65 crores titanium dioxide pigment plant at Sankaramangalam in Quilon district has already been completed. Agreement has also been entered into with Railways for railway siding and action is being taken for the acquisition of the land required for this purpose. Tenders have been floated for major indigenous equipments with long delivery periods and contracts have been awarded for most of the major items.

6.18 Value of cotton yarn produced by the Trivandrum Spinning Mills Limited in 1978-79 amounted to Rs. 179.58 lakhs as against Rs. 112.84 lakhs in 1977-78. Yarn produced by the unit was of the order of 6.75 lakh kilograms in 1978-79 as against 4.86 lakh kilograms in 1977-78. The sales proceeds of Rs. 178.61 lakhs received in 1978-79 was nearly twice that of the previous year. Nearly 90 per cent of the sales proceeds was obtained through export to other States, particularly Tamil Nadu, West Bengal and Maharashtra. Now the company is engaged in a modernisation programme costing Rs. 112 lakhs.

6.19 Data relating to paid up capital, number of persons employed, sales, production etc. of Government owned Companies are presented in Appendices 6.2 and 6.3.

Steel Industrials Kerala Limited

6.20 The objective of Steel Industrials Kerala Limited is the setting up of certain steel based industrial units in the State. The company now holds letters of intent/DGTD registrations for establishing the following six iron and steel units in the State.

- (i) Steel structurals and Fabrication Unit
- (ii) Steel Forgings and Spring Manufacturing Unit
- (iii) Ship Breaking Unit
- (iv) Steel Castings Foundry
- (v) Roller Bearing Unit; and
- (vi) Automotive Castings Unit.

6.21 The company has taken up the establishment of the Steel Structural and Fabrication Unit at Shertallai in the industrially backward district of Alleppey. The site preparation work relating to this unit is in progress. Commercial production by the

unit with an installed capacity of 6,250 tonnes of structurals and fabrications is expected to commence at an early date.

6.22 Government have approved a revised proposal for the establishment of the Steel Forgings Project at a total cost of Rs. 412.93 lakhs to be implemented in two stages. A rated capacity of 2500 tonnes is planned in the first stage. Under the first stage, the unit is expected to commence production in the second half of 1980. The company has decided to enter into a technical and marketing collaboration agreement with M/s. India Forge and Drop Stamping Limited, Madras. The company has been registered with Metal Scrap Trade Corporation, Calcutta, for setting up a ship breaking unit at an estimated cost of Rs. 146.20 lakhs with a capacity to break four ships of 5,000 tonnes each. The project report on the Ship Breaking Unit has been approved by the Government. The project report prepared by M/s Mukund Iron & Steel Limited for the Steel Casting Foundry has been accepted by the Company and the technical collaboration agreement for project implementation finalised. The project will cost Rs. 560 lakhs.

Malabar Cements Limited

6.23 Malabar Cements Limited was registered in April 1978 as a Public Limited Company for implementing a letter of intent obtained by the Kerala State Industrial Development Corporation for setting up and running a cement plant of a capacity of 1,200 tonnes per day at Walayar in Palghat District. The Company has taken a number of steps for the establishment of the Project. The Indian Bureau of Mines has prepared a detailed mining plan for this Rs. 33.5 crore project and it is estimated that the minable limestone reserves located so far would be sufficient for running the plant for a minimum period of 35 years. The Detailed Project Report has also been got prepared by M/s. Holtec Engineers (Pvt.) Ltd., the reputed consultants for establishments of cement plants. The project is to be financed by a share capital contribution of Rs. 7.5 crores and a long term loan of Rs. 26 crores. The national financing institutions have indicated their agreement to provide this loan capital.

6.24 The works for the development of the quarry has already commenced and works connected with railway siding and certain non-plan structures have also started. The contracts for civil and structural works are being finalised. Orders for a major portion of machinery have already been placed and supplies are expected to commence soon. The Plant is scheduled to be commissioned by early 1982.

Government Majority Concerns

6.25 The following are the companies in which the State Government holds majority shares:

- (i) Chalakudy Refractories, Chalakudy
- (ii) Forest Industries (Travancore), Alwaye
- (iii) Pallathra Bricks and Tiles, Sherthallai
- (iv) Traco Cable Company, Cochin
- (v) Transformers & Electricals Kerala, Angamally
- (vi) Travancore Cements, Nattakom
- (vii) Travancore Cochin Chemicals, Udyogamandal
- (viii) Travancore Titanium Products, Kochuveli
- (ix) United Electrical Industries, Pallimukku.

6.26 During 1978-79, all the companies in this group except three (Chalakudy Refractories, Pallathra Bricks and Tiles and Travancore Cochin Chemicals) were working on profit. The profit margin of Forest Industries (Travancore), Traco Cable Company and Transformers and Electricals Kerala increased during the year. The net profit earned by Transformers and Electricals Kerala increased from Rs. 60.54 lakhs in 1977-78 to Rs. 62.56 lakhs in 1978-79. This Company was able to absorb satisfactorily the 400 KV Technology. The first batch of 15 numbers of 400 KV transformers having a total capacity of 1453 MVA were supplied to the BEAS Construction Board during 1978-79. Substantial orders have been received by the Company for 400 MV Power Transformers and Current Transformers. Production during 1978-79 registered an increase of 27 per cent and the capacity utilisation was nearly full. The company took effective steps to implement the letters of intent received for the expansion of manufacturing capacity of power transformers from 3,000 KVA to 6,000 MVA and to manufacture gas circuit breakers up to 400 KV.

6.27 The value of production of AAC/ACSR, Power Cables and Telephone Cables by the Traco Cable Company during 1978-79 amounted to Rs. 476.33 lakhs compared to Rs. 313.59 lakhs in the previous year. The sales turnover also recorded an all time high of Rs. 465.11 lakhs as against Rs. 395.51 lakhs in the previous year. The working results of the Company during 1978-79 showed a net profit of Rs. 22.46 lakhs compared to Rs. 18.28 lakhs in 1977-78. The company also took steps to set up a factory at Thiruvella at an approximate cost of Rs. 11 crores for the manufacture of 5000 LKM jelly-filled telephone tables.

6.28 The production of titanium dioxide by Travancore Titanium Products increased marginally from 9888 tonnes in 1977 to 9916 tonnes in 1978.

The value of production, however, declined from Rs. 985.62 lakhs to Rs. 697.70 lakhs. Sales proceeds increased from Rs. 976.01 lakhs to Rs. 989.25 lakhs in 1978. The value of foreign exchange earnings of the Company during 1978 stood at Rs. 23.59 lakhs compared to Rs. 22.99 lakhs in the previous year. The activities of the company during 1978 resulted in a net profit of Rs. 30.62 lakhs in the place of Rs. 43 lakhs in the previous year.

6.29 Travancore Cements produced 34,057 tonnes of white cement and 267 tonnes of cement paint during 1978, the total value of which amounted to Rs. 464.22 lakhs. The value of production in 1977 was Rs. 246.32 lakhs. Sales value increased from Rs. 247.24 lakhs in 1977 to Rs. 268.04 lakhs in 1978. The profit margin of the Company however declined from Rs. 26.44 lakhs in 1977 to Rs. 17.74 lakhs in 1978. The Company is engaged in the implementation of a project of 15,000 tonnes per annum capacity for the production of calcium carbide.

6.30 Another Company which had a better showing during 1978-79 was Forest Industries (Travancore). The net profit of this company increased to Rs. 2.50 lakhs from a marginal net profit of Rs. 0.28 lakh in the previous year. The Company could achieve this position against a lower value of production of Rs. 50.86 lakhs compared to 52.60 lakhs in the previous year. This is attributable to the appreciable increase in sales proceeds realised by the Company during the year inspite of the severe competition from private parties. This amounted to Rs. 59.76 lakhs compared to Rs. 46.93 lakhs in the previous year. An Ascu Timber Treatment Plant is being commissioned by the Company. The project report for the Parquet Flooring Unit is under consideration of the Company.

6.31 The overall operating results of the Travancore Cochin Chemicals improved considerably in 1978-79 although the unit still incurred a loss. The year 1978-79 started with low level of production owing to various production and raw material constraints. However, with the corrective action taken, the production showed an upward trend, particularly in the second half of the year. Production of sodium sulphide and sodium hydrosulphite was maintained at a level economical to the company. The value of production in the unit was Rs. 673.91 lakhs in 1978-79 compared to Rs. 588 lakhs in 1977-78. Sales realisation also increased from Rs. 585 lakhs to Rs. 674.24 lakhs in the previous year. The entire production could be marketed. It is gratifying to note that the company could bring down the loss to Rs. 134.24 lakhs in 1978-79 from the level of Rs. 258.68 lakhs of 1977-78. The old age of Plant I and shortage of raw materials and certain other problems relating to Plant II have affected production considerably.

Plant I has been taken up for modernisation. A new plant for the manufacture of sulphur dioxide with an installed capacity of 4500 tonnes per annum is being set up. Projects for the manufacture of mercury-free hydrochloric acid and the 900 tonnes per day capacity thionyl chloride, are also under consideration of the company.

6.32 The activities of the United Electrical Industries during 1978 were quite encouraging. It could earn a net profit of Rs. 2.21 lakhs in 1978 in the place of a net loss of Rs. 17.25 lakhs during 1977. The value of goods produced by the company rose from Rs. 155.38 lakhs in 1977 to Rs. 174.11 lakhs in 1978. Income from sales increased to Rs. 173.42 lakhs as against Rs. 154.05 lakhs in 1977. The paid up capital of the company was raised from Rs. 58.90 lakhs in 1977 to Rs. 83.90 lakhs in 1978. It is gratifying to find that capacity utilisation in terms of all the items also increased significantly. The company diversified its activities by taking up expansion of the production of carbon film resistors and plastic film capacitors. Consequently production of carbon film resistors increased from 6.6 million numbers to 13.3 million numbers in 1978 and that of plastic film capacitors from 7.08 million numbers to 7.15 million numbers.

6.33 The Chalakudy Refractories sustained a loss during 1978-79 also. However, the net loss came down to Rs. 6.17 lakhs as against Rs. 8.22 lakhs in the previous year. The value of production was Rs. 13.12 lakhs in 1978-79 compared to Rs. 6.06 lakhs in 1977-78. Sales turnover also increased from Rs. 6.30 lakhs to Rs. 9.41 lakhs, during this period. The company started production of high value refractory items such as sillimanite, zircon etc. on a trial basis. It is hoped that once the expansion programme is over, the company would be able to manufacture these high value refractory items on a commercial basis and make profits.

6.34 The performance of the Pallathra Bricks and Tiles during the year 1978-79 was not satisfactory. The value of production of the company came down to Rs. 9.56 lakhs during the year from a level of Rs. 18.13 lakhs in 1977-78, the production of sandlime bricks being 55.48 lakh numbers compared to 70.43 lakh numbers in the previous year. The sales turnover also registered a decline to Rs. 11.35 lakhs from Rs. 17.78 lakhs. Net loss sustained by the company during 1978-79 was of the order of Rs. 4.5 lakhs compared to Rs. 4.2 lakhs in the previous year.

6.35 The salient features of government majority companies are presented in Appendices 6.4 and 6.5.

Kerala State Industrial Development Corporation.

6.36 The Kerala State Industrial Development Corporation, set up with an authorised share capital of Rs. 5 crores, is the major institution in the State for the promotion of large and medium scale industrial units. Since its inception the Corporation undertook various functions on the promotional side including obtaining letters of intent and industrial licence, identification of projects, arranging technical collaboration, securing institutional finance, land and other infrastructure facilities, participation in management, selection and training of personnel and exploration of minerals. The Corporation provides financial assistance in the form of direct participation in share capital, underwriting of shares, granting of term loans, furnishing of guarantees etc. It also undertakes techno-economic studies and surveys on natural resources in collaboration with other institutions engaged in the field.

6.37 The Corporation submitted in 1979, a proposal to the State Government for introducing a new package of assistance to large and medium industries in the State. Accepting the suggestions of the Corporation, the State Government have announced a new package of measures comprising (i) developed land, (ii) State investment subsidy, (iii) contribution to the cost of preparation of feasibility reports/project reports (iv) interest free sales tax loan and (v) exemption from payment of electricity duty. On the initiative of the Corporation the State Government have also constituted an Inter-Agency Co-ordination Group to assist entrepreneurs for speedy implementation of their projects. Active steps were taken by the Corporation for the establishment of a Centre for Management Development intended to improve the management and to train the managerial personnel of the industrial units, on the basis of the recommendations of the Committee on Management Development appointed by the Kerala Government.

6.38 As at the end of March 1979, the Corporation had promoted 18 projects of its own, extended promotional and financial assistance to 34 companies to set up new units and rendered financial assistance to 14 existing units to undertake expansion, diversification or modernisation programmes. The cumulative net financial assistance sanctioned by the Corporation as on March, 31st 1979 to these 66 industrial units amounted to Rs. 27.86 crores, of which an amount of Rs. 24.59 crores was disbursed or cleared. The financial activities of the Corporation during 1978-79 also were encouraging. It received applications for financial assistance amounting Rs. 204.07 lakhs during the year. Out of this, assistance worth Rs. 177.07 lakhs was sanctioned and Rs. 167.60 lakhs disbursed. Table 6.3 furnishes a comparative

statement showing financial assistance sanctioned and disbursed by the Corporation during the last three years.

TABLE 6.3
(Rs. lakhs)

| Item | 1977-77 | 1977-78 | 1978-79 |
|------------------------|---------|---------|---------|
| Applications received | 186.60 | 314.74 | 204.07 |
| Application sanctioned | 169.60 | 302.74 | 177.07 |
| Amount disbursed | 81.61 | 195.29 | 167.60 |

Source: Kerala State Industrial Development Corporation

6.39 In 1978-79, the Corporation sanctioned share capital contribution of Rs. 10.57 lakhs to three units as against Rs. 91.24 lakhs in 1977-78. Loan assistance amounted to Rs. 141.50 lakhs to seven units as against Rs. 111.50 lakhs to ten units in the preceding year. Guarantee assistance sanctioned was to the tune of Rs. 25 lakhs, that being Rs. 100 lakhs in 1977-78. As on 31st March 1979, the Corporation sanctioned loan assistance of the order of Rs. 1382.22 lakhs. The total share capital and loan investments in aided companies thus increased to Rs. 1973.82 lakhs. Table 6.4 indicates the nature and extent of financial assistance sanctioned and disbursed by the Corporation during the period 1976-77 to 1978-79.

TABLE 6.4
(Rs. lakhs)

| Item | 1976-77 | | 1977-78 | | 1978-79 | |
|---------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|
| | Sanc- tioned | disbur- sed | sanc- tioned | disbur- sed | sanc- tioned | disbur- sed |
| Share Capital | 28.55 | 18.06 | 91.24 | 72.65 | 10.57 | 54.65 |
| Loans | 86.00 | 63.95 | 111.50 | 122.31 | 141.50 | 111.98 |
| Guarantee | 55.00 | 2.60 | 100.00 | 0.33 | 25.00 | 0.69 |
| Total | 169.55 | 84.61 | 302.74 | 195.29 | 177.07 | 167.27 |

Source: Kerala State Industrial Development Corporation.

6.40 The paid up share capital of the Corporation was enhanced from Rs. 464 lakhs in 1977-78 to Rs. 494 lakhs in 1978-79. With a view to augmenting its resources the Corporation issued bonds worth Rs. 110 lakhs during the year. The aggregate market borrowing of the Corporation stood at Rs. 901 lakhs, as on 31st March 1979. The gross income of the Corporation in 1978-79 was Rs. 96.83 lakhs as against Rs. 104.24 lakhs in the previous year. The major component of income was interest on loans which amounted to Rs. 67.54 lakhs during the year. The working of the Corporation resulted in a net profit of Rs. 16.19 lakhs after providing for tax Rs. 10.75 lakhs against Rs. 32.92 lakhs in 1977-78. This reduction in profit is mainly due to the reduced dividend receipt from the aided companies.

Kerala State Electronics Development Corporation

6.41 The Kerala State Electronics Development Corporation came into existence on 29-9-1972 as a fully

owned government company with an authorised capital of Rs. 3 crores. The main object of the Company is to set up electronic units in different parts of Kerala. Another objective is to provide technical, financial and marketing assistance to new entrepreneurs in electronic industries, besides building up a technical cadre which could be the backbone of the electronic industry in the State.

6.42 The Corporation started its activities with two units in 1973-74, but by the end of 1978-79, the total number of units in the Keltron group went up to twelve. Six of these units are subsidiaries of the corporation while six others are its associates. Besides these manufacturing units, two other units viz. Research and Development Unit and Testing and Developing Unit, mainly intended for research, were also established. A central marketing organisation was also formed for handling the marketing of the products of all the companies in the Keltron group.

6.43 The particulars of the manufacturing units in the Keltron group, their project cost, equity investment etc. are given in Table 6.5.

TABLE 6.5
(Rs. lakhs)

| Name of Company | Total Project cost. | Equity capital (1978-79). |
|------------------------------------|-----------------------|---------------------------|
| I. Subsidiaries. | | |
| (i) Keltron Counters | (old unit taken over) | 50.00 |
| (ii) Keltron Crystals | 64.00 | 24.00 |
| (iii) Keltron Magnetics | 61.00 | 15.00 |
| (iv) Keltron Di-electro magnetics | 60.00 | 16.33 |
| (v) Keltron Rectifiers | 111.00 | 2.00 |
| (vi) Keltron Power Devices | 225.00 | .. |
| II. Associates. | | |
| (i) Keltron Component complex | 542.00 | 160.80 |
| (ii) Keltron Resistors | (old unit taken over) | .. |
| (iii) Keltron Projectors | 30.00 | 2.06 |
| (iv) Keltron Ferrites | 15.00 | 4.90 |
| (v) Keltron Varistors | 10.00 | 1.84 |
| (vi) Keltron Entertainment Systems | 30.00 | .. |

6.44 Of the twelve subsidiary and associate companies commercial production has been started in all except Keltron Power Devices, Keltron Resistors, Keltron Rectifiers and Keltron Dielectro Magnetics. The Kerala State Electronics Development Corporation and its units manufacture electronic goods of different types. The associates and subsidiaries are engaged in the production of cine projectors, capacitors, quartz crystals, electro magnetic components, power transistors, speedo meters, voltage stabilisers, impulse clocks, counting devices, radio receivers, resistors etc. The Corporation is mainly producing T. V. receivers, calculators, electronic printers etc. The capacity utilisation in all associate and subsidiary units is generally low. In respect of a few products only, more than 50 per cent capacity is

utilised. The production details of the main items manufactured by the Kerala State Electronics Development Corporation are given in Table 6.6.

TABLE 6.6

| Product | Installed Capacity (Nos.) | Production (nos.) | | |
|----------------------------------|---------------------------|-------------------|---------|---------|
| | | 1976-77 | 1977-78 | 1978-79 |
| Electronic Printers | 5,000 | 24 | 42 | 131 |
| Static Investor Systems | 5,000 | 552 | 1703 | 1095 |
| T. V. Receivers | 5,000 | 4059 | 5033 | 4142 |
| Electronic Calculators | 5,000 | 1970 | 2463 | 3510 |
| Variable Speed Drives (licensed) | 2,000 | 32 | 92 | 60 |

6.45 The value of production in respect of Kerala State Electronics Development Corporation during 1978-79 amounted to Rs. 210 lakhs as against Rs. 217 lakhs in the previous year, while the turnover during 1978-79 was Rs. 275 lakhs as against Rs. 250 lakhs during the previous year. There was significant increase in the turnover of all the units in the Keltron Group taken together, which rose from Rs. 404 lakhs in 1977-78 to Rs. 550 lakhs during 1978-79, ie an increase of about 36 per cent over the previous year.

6.46 The working of the Corporation during the year resulted in a net profit of Rs. 4.30 lakhs as against Rs. 5.12 lakhs in the previous year. However the other units in the Keltron Group sustained losses and the total loss of all the units together amounted to Rs. 97.84 lakhs during 1978-79. Many of the units have not stabilised the production and this is stated to be the main reason for the losses.

6.47 The paid up capital of the Corporation was Rs. 489.86 lakhs as at the end of 1978-79, the whole of which had been contributed by the State Government. The Corporation had also availed of loans amounting to Rs. 103.35 lakhs and fixed deposits from public amounting to Rs. 96.78 lakhs. An amount of Rs. 385 lakhs, was also raised from the sale of debentures. The lion's share of the financial resources of the Company, viz. Rs. 669.03 lakhs had been provided to the other unit in the group by way of share capital and as loan. The total equity capital investment of the Corporation in its associates and subsidiaries was Rs. 152.62 lakhs at the end of 1978-79. It also provided loans to the units at 15 per cent interest. As none of the units are making profits, the equity investment in these units could not bring in any resource by way of dividends.

6.48 The Corporation has in hand orders worth more than Rs. 5 crores from Gujarat State Electricity Board for supply of control equipments to two of its thermal power stations. Therefore it is expected that the Company could make more profit during the current

year viz. 1979-80. The new project for the manufacture of Electronic Process Control Instrumentation and System in collaboration with M/s. Controle Bailey SA of France is expected to be commissioned by the end of 1980. The unit is estimated to cost Rs. 740 lakhs. The factory is being set up for this at Aroor in Alleppey District.

6.49 The Keltron Group of companies have on its rolls more than 2,000 workers in its 13 units. Keltron could also provide indirect employment to significant number of workers.

6.50 A statement showing the production of electronic goods in Kerala compared to the national electronic production is given in Table. 6.7.

TABLE 6.7

Comparative Share of Kerala in All India Electronic Production

(Rs. in crores)

| Year | Total production in India | Production in Kerala | Percentage share of Kerala |
|---------|---------------------------|----------------------|----------------------------|
| 1971-72 | 185.50 | 0.50 | 0.25 |
| 1975-76 | 364.00 | 4.90 | 1.35 |
| 1976-77 | 407.00 | 6.98 | 1.72 |
| 1977-78 | 504.50 | 10.30 | 2.05 |
| 1978-79 | 590.50 | 13.00 | 2.20 |

6.51 It can be seen from the Table that electronics production in Kerala is steadily increasing. The share of Kerala was only 0.25 per cent in the all India production during 1971-72. This has at present reached a level of 2.2. per cent. A number of the units in the Keltron Group are yet to stabilise production, while a few more new units are being set up in the State. Hence electronic production in the State is bound to go up when all these units start commercial production.

Kerala State Textile Corporation

6.52 The Government of India announced its integrated textile policy in August 1978. The objectives of this Policy are production and availability of adequate supplies of cloth of acceptable quality and at low prices for the masses and improved arrangements for its distribution, rapid development of decentralised sector and harmonious balance between the use of cotton and synthetic fibres. The total number of textile mills in India increased from 636 in January 1978 to 648 in December 1978. Out of this 357 were in the spinning sector. The installed spindleage in India during this period rose from 7.40 million to 7.68 million. In the Southern region the total number of mills at the end of 1978 was 273 comprising 225 spinning mills and 48. composite mills.

6.53 In Kerala there has not been any change in the total number of mills in 1978. It stood at 26, composed of 21 spinning and 5 composite mills. However, the installed spindleage increased from 4,94 460 to 5,03,860

during 1978. Number of employees rose from 16743 to 17504 during this period. The position of State's textile industry compared to the Southern region and the country as a whole can be seen from Table 6.8.

TABLE 6.8
Position of Textile Industry in Kerala as on 31st December 1978

| Item | All India | | | | Southern Region | | | | Kerala | | | |
|-----------|--------------|------------------------------|----------------------------|----------------------|-----------------|------------------------------|----------------------------|--------------------|--------------|-------------------------------|----------------------------|------------------|
| | No. of Mills | Spindles Installed (million) | Looms Installed (thousand) | Employment | No. of Mills | Spindles Installed (million) | Looms Installed (thousand) | Employment | No. of Mills | Spindles Installed (thousand) | Looms Installed (thousand) | Employment |
| Spinning | 357 (347) | 7.68 (7.40) | | | 225 (225) | 4.892 (4.830) | | | 21 (21) | 417.16 (409.44) | | |
| Composite | 291 (291) | 12.40 (12.30) | 207.1 (207.1) | | 48 (47) | 2.058 (1.963) | 20802 (20770) | | 5 (5) | 86.70 (85.02) | 1160 (1136) | |
| Total | 648 (637) | 20.08 (19.70) | 207.1 (207.1) | 1073108 (1027994) | 273 (272) | 6.950 (6.794) | 20802 (20770) | 229611 (226195) | 26 (26) | 503.86 (494.46) | 1160 (1136) | 17504 (16743) |

Source: The Southern India Mills Association, Coimbatore.
Figures in brackets indicate the position as on 31st December, 1977.

6.54 The Kerala State Textile Corporation which is entrusted with the promotion of textile industry in the State aims at ensuring rapid modernisation of the sick textile undertakings and adequate financial assistance to them for the purchase of machinery and working capital. The Corporation has taken over the management of three closed textile mills viz. Malabar Spinning and Weaving Company, Ltd., Calicut, Prabhuram Mills, Chenganoor and Kottayam Textiles, Kottayam and recommissioned them in 1978. The working of the Bleaching and Calendering Plant at Pappanmcode, which is being managed by the Corporation on behalf of the State Government, was restarted during 1978-79. The Corporation has drawn up detailed modernisation schemes for the mills under its management. It has also taken up the establishment of a knitting complex in the State. The paid up capital of the Corporation has been increased to Rs. 94 lakhs. Though the working of the mills has been started only in August 1978, their performance during the period of operation is encouraging. During 1978-79, the three mills under the Corporation's management employed 1346 persons and produced yarn and cloth worth Rs. 2.68 crores. The working of the Corporation during 1978-79, resulted in a net profit of Rs. 1.81 lakhs.

Kerala State Industrial Products Trading Corporation

6.55 The Kerala State Industrial Products Trading Corporation was incorporated in August 1976 with an authorised share capital of Rs. 50 lakhs for organising the sale of some products of Government companies. The paid up capital of the Corporation has been raised to Rs. 8 lakhs in March 1979. The Corporation

has been able to overcome some of the initial difficulties experienced by it in obtaining contract from the producing companies. On 17-2-1979 the Corporation signed the trade agreement with the Travancore Titanium Products Ltd. for selling their products. The sale of titanium dioxide commenced on 1-3-1979. It sold 835 tonnes of titanium dioxide pigment valued Rs. 95.96 lakhs in March 1979. The total sales turnover is expected to be approximately Rs. 10 crores during 1979-80. The Corporation sold 174 tonnes of white cement worth Rs. 2.05 lakhs and seven tonnes of cement paint worth Rs. 0.35 lakhs during 1978-79. The total sales turnover of these two items is estimated to reach Rs. 25 lakhs in 1979-80. The Corporation is also exploring the possibilities of taking up the sales of other products, both industrial and agricultural, in the coming years. Owing to the delay in the commencement of sales operations the Corporation sustained an aggregate small loss of Rs. 1.41 lakhs during the period 1977-79.

Government of India Concerns.

6.56 The following are the Government of India companies functioning in the State:

1. Cochin Refineries Limited, Ambalamugal.
2. Fertilisers and Chemicals Travancore Limited, Alwaye.
3. Hindustan Insecticides Limited, Alwaye.
4. Hindustan Latex Limited, Trivandrum.
5. H M T Limited, Kalamassery.
6. Indian Rare Earths Limited, Alwaye and Chavara.

7. Indian Telephone Industries Limited, Palghat.
8. Instrumentation Limited, Palghat.
9. Modern Bakeries (India) Limited, Edappally.
10. Cochin Shipyard, Cochin.
11. Kerala Newsprint Project, Velloor, Kottayam.

6.57 During 1978-79 the Udyogamandal Division of the Fertilisers and Chemicals, Travancore Limited attained the highest level of production ever recorded by it since its inception. In terms of nutrients, the production of nitrogen and phosphorous pentoxide was 50,593 tonnes and 27,793 tonnes respectively which was 108 per cent of the target. Production of superphosphate was 33,701 tonnes and well above target. New production records were established in the production of ammonia and urea in the Cochin Phase I plants. The output of 1,00,082 tonnes of ammonia achieved during the year was the highest attained so far. Against the target of 2,00,000 tonnes the production of urea was 1,86,043 tonnes. In the case of nutrient nitrogen this works out to 85,580 tonnes against the target of 92,000 tonnes.

6.58 The 1,000 tonnes per day sulphuric acid and 360 tonnes per day phosphoric acid plants were commissioned successfully and operated whenever required at rated capacity. The production of 23,296 tonnes of sulphuric acid in January 1979 was a new record in monthly production. Similarly production of 7,335 tonnes of phosphorous pentoxide in the same period from the phosphoric acid plant was also a new record. Against the targeted production of 1,55,000 tonnes of NPK plant the production attained was 10,390 tonnes. Although there was some improvement on the performance of the plant, the targets could not be achieved due to problems in granulation, screening, dust control and product movement, acid storage particularly in the case of NPK 17:17:17 production.

6.59 Total value of goods produced by the Company during 1978-79 was Rs. 7514.27 lakhs as against Rs. 6714.45 lakhs in 1977-78. The sales during the period once again registered an all time high of Rs. 8735 lakhs as against Rs. 8333 lakhs in 1977-78. The paid up share capital of the company at the end of 31st March 1979 stood at Rs. 11881.20 lakhs as in the previous year. The working of the Company resulted in a surplus of Rs. 207 lakhs. But after providing for depreciation and other items, the net loss for the year 1978-79 stood at Rs. 554 lakhs as against Rs. 886 lakhs in 1977-78.

6.60 The Hindustan Insecticides, Always Unit, had a better performance during 1978-79 compared to the previous year. The value of production increased from Rs. 433.09 lakhs in 1977-78 to Rs. 684.81 lakhs in 1978-79 while the sale proceeds stood at

Rs. 535.49 lakhs in 1978-79 against Rs. 345.68 lakhs in 1977-78. Figures relating to capacity utilisation are also encouraging. In the case of technical DDT, the Unit could utilise the installed capacity to the maximum. In the case of other products the capacity utilisation was higher compared to that of the previous year. The Company is now engaged in a diversification programme for the manufacture of pesticides. Another plant with 1,600 tonnes per annum capacity for the production of technical endo-sulphan is being implemented and expected to be commissioned shortly. The working results of the unit during 1978-79 show a net profit of Rs. 16.06 lakhs in the place of a nominal profit of Rs. 0.29 lakhs in 1977-78.

6.61 The Cochin Refineries Limited processed 28.62 lakh tonnes of crude oil during 1978-79 and resumed production of bulk asphalt from April 1978. Production of aviation turbine fuel by the Refinery also commenced for the first time in April 1978. Supply of crude oil to the Company is being made by the Government of India under agreement with some of the oil producing countries of the Middle East. The indigenous crude from Bombay High received during the year for processing was to the tune of 1.88 lakh tonnes. The total value of goods produced by the Company was Rs. 25565 lakhs in 1978-79, while the sales proceeds amounted to Rs. 25446 lakhs. The net profit earned by the Refinery during 1978-79 stood at Rs. 184.07 lakhs.

6.62 The Hindustan Latex Limited produced 182.53 million pieces of saleable condoms. This production figure is the highest since the inception of the Company. It also produced 4750 numbers of saleable 875 gram meteorological balloons from its balloon plant. Owing to certain bottlenecks in the sale chain, activities in the balloon plant were suspended from 16-12-1978 and this stoppage continued through the rest of the financial year. The total value of the Company's products in 1978-79 was Rs. 261 lakhs. The sale proceeds amounted to Rs. 258.11 lakhs. Out of the sales of 180 million pieces of nirodh during 1978-79, 123 million pieces were distributed under the free distribution scheme, 50 million pieces under commercial distribution scheme and 7 million pieces were exported to Russia through an export agency firm. About 660 meteorological balloons were supplied to the Indian Meteorological Department. The operation of the Company for the year ended in a net loss of Rs. 12.30 lakhs after providing for depreciation and interest on term loans etc.

6.63 Indian Rare Earths Limited produced goods worth Rs. 910.45 lakhs in 1978-79 as against Rs. 800.38 lakhs in 1977-78. The sales turnover of the Minerals Division increased by about 10 per cent over that of the

previous year as a result of the increased export of garnet and better price realisation on exports of ilmenite. On the other hand, the sales of the Rare Earths Division decreased by about 10 per cent compared to that of the previous year. This fall is mainly due to the decline in export of rare earths chloride, production of which was hampered by lack of adequate supply of monazite. However, the Company could earn foreign exchange through export worth Rs. 464.40 lakhs during the year 1978-79. The performance during the year resulted in a net profit of Rs. 96.50 lakhs compared to Rs. 93.70 lakhs in 1977-78.

6.64 The operations of the Palghat Unit of the Indian Telephone Industries Limited during 1978-79 resulted in a net loss of Rs. 9.68 lakhs. This loss is in spite of a substantial increase in the production value which was Rs. 23.12 lakhs in 1978-79 compared to Rs. 16.92 lakhs in 1977-78. The income from sales, however, was much lower than that in the previous year. The unit could market goods worth only Rs. 9.79 lakhs in 1978-79.

6.65 The Palghat Unit of the Instrumentation Limited had a better showing during 1978-79 and its operation resulted in a gross profit of Rs. 103.81 lakhs, as against Rs. 70.90 lakhs in 1977-78. The value of complementary outfits to instruments produced by this unit amounted to Rs. 352.68 lakhs as compared to Rs. 225.05 lakhs in 1977-78 while sale value realised was Rs. 490.68 lakhs in 1978-79 (Rs. 313.25 lakhs in 1977-78). 1978-79 was a successful year for the Edappally unit of the Modern Bakeries (India) Limited. It produced modern bread and bun worth Rs. 151.83 lakhs in 1978-79 as against Rs. 97.00 lakhs in 1977-78. The sale proceeds of the unit was Rs. 163.25 lakhs in 1978-79 (Rs. 97 lakhs in 1977-78). The working of this unit resulted in a net profit of Rs. 15.74 lakhs as against Rs. 3.45 lakhs in 1977-78.

6.66 The main features, capacity utilisation etc of Government of India companies are furnished in Appendices 6.6. and 6.7.

6.67 The Kerala Newsprint Project at Velloor, with an installed production capacity of 82,000 tonnes, was to have been commissioned in October 1978. However owing to several problems relating to the construction of factory sheds, machinery installation etc, this project has been delayed. The Project cost has escalated from the initial estimate of Rs. 82 crores to Rs. 106 crores. If every thing runs smoothly, the production in the unit may start from October 1980.

6.68 The Cochin Shipyard completed all works relating to its first ship named 'Rani Padmini' during 1978-79. On 28th January 1980 this ship, the largest built in the country, was launched. The cost of this 75,000 tonne bulk carrier at the time of completion was

Rs. 30 crores as against its original contract price of Rs. 19 crores. It is expected to be delivered to its buyer, the Shipping Corporation of India by December 1980, after all the outfittings are made. The keel for the second ship which is of the same class and design for the use of Ratnakar Shipping Company has also been laid. The ship which is expected to be completed within a year will be in the building quay for about eight months for furnishing and outfittings. By the time the shipyard is able to launch its fourth ship, it is expected that the rated capacity of two ships a year would be attained. Realising the fact that the ship repairing activity is rather profitable than ship building, the Company is constructing a ship repairing dock, much bigger than the building dock, the work on which is expected to be completed by June 1980.

6.69 Total investment by the Central Government in the industrial undertakings of the State amounted to Rs. 325.5 as on 31st March 1978 as against Rs. 274.1 crores in 1977. Though it shows an increase of Rs. 51.4 crores, the percentage share of the State compared to the total investment in all the States, remained around 2.38 per cent. The value of property under Central Government concerns in different States during 1976-77 and 1977-78 is presented in Table 6.9.

TABLE 6.9
State-wise Value of Property (Gross Block) Under
Central Public Sector Units
(Rs. in crores)

| Sl. No. | State | As on 31st March 1977 | | As on 31st March 1978 | |
|---------|-------------------------------------|-----------------------|------------|-----------------------|------------|
| | | Value of Property | Percentage | Value of Property | Percentage |
| 1. | Andhra Pradesh | 390.7 | 3.41 | 489.7 | 3.57 |
| 2. | Assam | 312.9 | 2.73 | 370.7 | 2.71 |
| 3. | Bihar | 2509.1 | 21.91 | 2815.3 | 20.54 |
| 4. | Delhi | 400.7 | 3.50 | 356.3 | 2.60 |
| 5. | Gujarat | 523.4 | 4.57 | 626.9 | 4.57 |
| 6. | Haryana | 142.7 | 1.25 | 144.7 | 1.06 |
| 7. | Himachal Pradesh | 11.8 | 0.10 | 87.5 | 0.64 |
| 8. | Karnataka | 268.2 | 2.34 | 414.7 | 1.06 |
| 9. | Kerala | 274.1 | 2.39 | 325.5 | 2.38 |
| 10. | Madhya Pradesh | 1492.7 | 13.04 | 1793.6 | 13.09 |
| 11. | Maharashtra | 630.3 | 5.51 | 909.2 | 6.63 |
| 12. | Orissa | 646.5 | 5.65 | 654.4 | 4.77 |
| 13. | Punjab | 197.8 | 1.73 | 225.7 | 1.65 |
| 14. | Rajasthan | 227.1 | 1.98 | 277.1 | 2.02 |
| 15. | Tamil Nadu | 466.9 | 4.08 | 563.4 | 4.11 |
| 16. | Uttar Pradesh | 376.2 | 3.28 | 487.0 | 3.55 |
| 17. | West Bengal | 768.2 | 6.71 | 1058.8 | 7.73 |
| 18. | Jammu & Kashmir | 5.7 | 0.05 | 5.8 | 0.04 |
| 19. | Goa | 3.3 | 0.03 | 4.9 | 0.04 |
| 20. | Union Territories (excluding Delhi) | 67.9 | 0.59 | 107.5 | 0.78 |
| 21. | Unallocated and others | 1734.9 | 15.15 | 1986.9 | 14.50 |
| | Total | 11451.2 | 100.00 | 13705.3 | 100.00 |

Source: Bureau of Public Enterprises, Ministry of Finance, Government of India.

Traditional Industries

(a) Coir Industry

6.70 The Coir Development Scheme pursued by the State aims at bringing more and more coir workers into the co-operative fold so as to ensure reasonable wages to them. Reorganisation of production and marketing is also envisaged under this scheme. The coir societies set up till recently were service type organisations which enabled the members to get the raw materials and acted as commission agents for marketing the products. This system was not entirely successful in raising the status of the workers and hence the benefits which accrued to them were also not commendable. This necessitates a restructuring of the societies. With this aim in view comprehensive programmes have been chalked out to organise coir co-operatives into production-cum-sale societies. The societies are being reorganised in a phased programme so that its members are predominantly workers themselves. The number of coir societies which was 354 as on 1-7-1978 rose to

422 as on 1-3-1979. The different types of coir societies working in the State at the end of March 1979 are given in Table 6.10.

TABLE 6.10
Coir Societies in the State

| Society Type | Viable | Potentially viable | Total |
|--|------------|--------------------|------------|
| 1. Primary Societies in the Spinning Sector | 102 | 299 | 401 |
| 2. Mats and Mattings Societies | 5 | 9 | 14 |
| 3. Central Coir Marketing Societies | 3 | 1 | 4 |
| 4. Husk Procurement and Distribution Societies | .. | 3 | 3 |
| Total | 110 | 312 | 422 |

Source: Directorate of Coir, Kerala.

TABLE 6.10
Primary Societies

| Year | No. of societies | No. of members | Husk purchased | | Yarn purchased | | Wages paid | |
|-------------------------|------------------|----------------|----------------|-------------------|----------------|-------------------|----------------|---------------------|
| | | | No. in lakhs | Value (Rs. lakhs) | Quintals | Value (Rs. lakhs) | No. of workers | Amount paid (lakhs) |
| 1974-75 | 196 | 80593 | 1123.40 | 76.03 | 55160 | 101.26 | 22673 | 65.65 |
| 1975-76 | 211 | 106096 | 1878.70 | 110.52 | 127291 | 331.30 | 32590 | 222.02 |
| 1976-77 | 243 | 124835 | 1541.98 | 106.18 | 147434 | 379.94 | 58587 | 236.69 |
| 1977-78 | 354 | 156268 | 1264.60 | 86.43 | 134613 | 341.11 | 61518 | 212.46 |
| 1978-79 | 401 | 157584 | 929.79 | 80.51 | 81489 | 194.65 | 53863 | 135.17 |
| (1-7-1978 to 31-3-1979) | | | | | | | | |

Source: Directorate of Coir, Kerala

TABLE 6.11
Manufacturing Societies

| Year | No. of societies | No. of Members | Production value (Rs. lakhs) | Workers benefited | Wages paid (Rs. lakhs) | Export (Rs. lakhs) |
|-------------------------|------------------|----------------|------------------------------|-------------------|------------------------|--------------------|
| 1974-75 | 11 | 1510 | 95.88 | 1010 | 23.23 | 59.19 |
| 1975-76 | 11 | 1655 | 99.79 | 1055 | 24.20 | 55.08 |
| 1976-77 | 11 | 1620 | 141.65 | 1146 | 28.82 | 43.55 |
| 1977-78 | 13 | 1754 | 148.95 | 1148 | 27.16 | 66.07 |
| 1978-79 | 14 | 1755 | 99.34 | 1296 | 20.53 | 23.16 |
| (1-7-1978 to 31-3-1979) | | | | | | |

Source: Directorate of Coir, Kerala.

TABLE 6.12
Central Marketing Societies

| Year | No. of societies | No. of Members | Purchase value (Rs. lakh) | Sales (Rs. lakh) | | |
|-------------------------|------------------|----------------|---------------------------|------------------|--------|--------|
| | | | | Inland | Export | Total |
| 1974-75 | 4 | 435 | 296.72 | 232.16 | 31.11 | 263.27 |
| 1975-76 | 4 | 448 | 426.49 | 298.72 | 78.55 | 377.27 |
| 1976-77 | 4 | 456 | 514.23 | 497.04 | 29.41 | 526.45 |
| 1977-78 | 4 | 483 | 399.52 | 468.83 | 28.66 | 497.49 |
| 1978-79 | 4 | 507 | 322.60 | 372.65 | 31.77 | 404.42 |
| (1-7-1978 to 31-3-1979) | | | | | | |

Source: Directorate of Coir, Kerala.

6.71 As on 31-3-1979, the primary coir societies in the spinning sector covered 157,584 members, the manufacturing societies 1,755 and the central marketing societies 507 workers. In spite of efforts made in the past, a considerable number of coir workers are still outside the co-operative fold. This calls for expansion of the co-operative sector in a big way in the coming years. In the co-operative sector the workers are getting reasonable wages and the profits are shared by the members. In the private sector of the industry the wages of the workers are low. Owing to the prevalence of higher wages in the co-operative sector, the private sector is forced to increase the wages of the workers.

6.72 Non-availability of raw husks at reasonable prices is the main obstacle hindering the rapid expansion of the co-operative sector. To augment husk and fibre supply various controls are being enforced by the Coir Directorate. These controls are aimed at better distribution of husks and fibre to the co-operatives. The regulations now in force include the Coconut Husk Control Order 1973, the Kerala Coconut Husks and Fibre (Regulation of Movement) Order 1975, Coconut Husks and Coir Fibre (Export Control) Order 1974 and the Kerala Coir Products (Price Fixation) Order 1975.

6.73 Even with all these measures coir co-operatives are not getting adequate quantity of raw husks for uninterrupted production throughout the year. The availability of raw husk at the retting centres has fallen sharply owing to the uneconomic price for husks existing at certain centres. Hence in order to make available adequate quantity of raw husk at the retting site, it may be necessary to revise the price of husks. Further only about 50 per cent of husks produced in the State is put to industrial use in the State. There are many competing rural demands for husk. A systematic

approach at procurement and distribution of raw material should be adopted for the successful functioning of the industry. The existing loopholes in the implementation of the Husk and Fibre (Regulation of Movement) Order have also to be plugged for making available raw husks.

6.74 The State's Coir Development Programme also contemplates a progressive change-over to institutional finance from the present dependence on budgetary finance. From 1974-75 onwards Reserve Bank of India started financing coir co-operatives on the basis of the Government guarantee. This financial assistance is routed through the concerned District Co-operative Banks at a concessional rate of interest for the working capital needs of the coir co-operatives which has satisfied the norms prescribed by Reserve Bank of India. During the year 1979-80 a total credit limit of Rs. 346.02 lakhs has been sanctioned to 120 societies.

6.75 Coir has traditionally been an export oriented commodity of Kerala and even now the mainstay for coir and coir goods is foreign markets. India and Sree Lanka are the major producers and exporters of coir and coir goods. Export of coir from Sree Lanka is mainly bristle and mattress varieties of fibre. Apart from coir fibre, Sree Lanka also exports small quantities of machine-spun yarn to some of the selected markets. India has a virtual monopoly in the supply of spun yarn and manufactured products to the world markets. The export of coir and coir goods has however been steadily going down during the last decade. It has been declining in terms of quantity though in terms of money value realised it has been on the increase on account of the higher unit value of the products. This declining trend in coir exports was reversed in 1978-79. Table 6.13 gives the data relating to the export of coir and coir products from India during the last three years

TABLE 6.13
Export of Coir and Coir Products

| Item | 1976-77 | | 1977-78 | | 1978-79 | |
|-----------------------------------|----------|---------|----------|---------|----------|---------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Coir Fibre | 134 | 2.88 | 55 | 1.48 | 35 | 1.17 |
| Coir Yarn | 26567 | 1052.32 | 22639 | 910.89 | 23536 | 1012.75 |
| Coir Mats | 9582 | 735.18 | 10748 | 829.13 | 10954 | 904.79 |
| Coir Mattings, Rugs, Carpets etc. | 7020 | 462.00 | 8045 | 627.75 | 8049 | 648.71 |
| Coir Rope | 185 | 5.42 | 160 | 4.75 | 72 | 2.65 |
| Curled Coir | 868 | 19.48 | 789 | 16.67 | 412 | 8.35 |
| Rubberised Coir goods | 1 | 0.27 | 8 | 1.67 | 7 | 0.90 |
| Total | 44357 | 2277.55 | 42444 | 2392.34 | 43065 | 2579.32 |

6.76 Item-wise export of coir and coir goods reveals that export of coir yarn, coir mats and mattings during the year 1978-79 recorded an increase over the export of these items during the previous year. Increase in the export of coir yarn is specially significant as export of coir yarn had been consistently declining over the past several years. Export of items like coir fibre, coir rope, curled coir and rubberised coir goods registered a decline during the year.

Cashew Industry

6.77 The factory sector of Kerala is dominated by cashew industry. More than 1.2 lakh workers are dependent on this industry. The major problems facing the industry is the inadequacy of raw nuts for processing in the cashew factories. This has rendered round-the-year operations in cashew factories impossible. The average daily employment in cashew factories which was only around 0.67 lakhs in 1958 increased gradually to 1 lakh in 1970. Though the number of workers has increased steadily, they do not get full employment throughout the year. The Cashew Development Corporation, the governmental agency in the field, manages 34 cashew factories having 34,575 workers. The Corporation could provide employment to the workers for only 113 days in 1979. The industry today is facing the twin problems of competition in the kernel trade, and dwindling supply of raw nuts from East African Countries. The East African cashew producing countries have themselves developed processing facilities and have emerged as India's chief competitor in the world market. This has contributed to the steady decline of import of raw nuts. Consequent on the fixation of minimum wages and enactment of certain ameliorative labour laws, the labour in Kerala has become dearer compared to neighbouring states. Therefore there is a tendency

for cashew industry to shift to neighbouring States like Tamil Nadu. Fluctuations in the international market for raw cashew and kernels on one hand, severe competition among the home manufactures and their non-co-operative attitude towards state intervention in the industry on the other have threatened the very stability of the industry.

6.78 The industry is heavily dependent on raw nuts imported from East African countries like Tanzania, Mosambique and Kenya. Raw nut imports which were of the order of 1.7 lakh tonnes in 1970-71 have been reduced to a mere trickle in 1978-79 when only less than 21,000 tonnes were imported into India. (See Table 6.14) of these, imports from Tanzania were over 20,000 tonnes.

TABLE 6.14
Import of Raw Cashewnuts

| Year | Quantity (Tonnes) | Index | Value (Rs. in lakhs) | Index |
|---------|-------------------|-------|----------------------|-------|
| 1950-51 | 54819 | 100 | 284.00 | 100 |
| 1955-56 | 63154 | 115 | 484.00 | 170 |
| 1960-61 | 118321 | 215 | 961.00 | 338 |
| 1965-66 | 150636 | 275 | 1506.00 | 530 |
| 1970-71 | 169359 | 309 | 2940.76 | 1035 |
| 1975-76 | 137196 | 250 | 3355.78 | 1182 |
| 1976-77 | 75122 | 137 | 1832.99 | 645 |
| 1977-78 | 60194 | 110 | 1871.99 | 659 |
| 1978-79 | 20576 | 38 | 915.41 | 322 |

6.79 A decline in export of cashew kernel from India was also a feature of 1978-79. During this year, India exported 26,877 tonnes of cashew kernels valued at Rs. 80.02 crores and 5,922 tonnes of cashew shell liquid valued at Rs. 4.90 crores. The comparative figures for the previous year were 39,511 tonnes of

kernels valued at Rs. 147.57 crores and 2,597 tonnes of cashew shell liquid valued at Rs. 1.06 crores. In other words India exported cashew products worth only Rs. 84.92 crores during 1978-79 as against Rs. 148.63 crores in the previous year. The net foreign exchange earned by cashew industry in 1978-79 was Rs. 75.80 crores compared to Rs. 129.22 crores in the previous year.

6.80 The Kerala State Co-operative Marketing Federation, the State Government's agency for the procurement and distribution of indigenous raw nuts, continued its operations during 1978-79 also. Though the Federation has the right for monopoly procurement it could procure only 37,144 tonnes of raw nuts during 1978-79. The Federation sold 34,700 tonnes of raw nuts during the 1979 season compared to 66,465 tonnes during the 1978 season. (See Table 6.15).

TABLE 6.15

District-wise Procurement and Distribution of Raw Nuts

| District | Quantity procured | | Quantity sold | | |
|------------|-------------------|-------------|---------------|-------------|----------|
| | 1978 Season | 1979 Season | 1978 Season | 1979 Season | |
| Cannanore | 29,446 | 12,739 | 22,955 | | } 21,435 |
| Kozhikode | 4,599 | 2,854 | 3,754 | | |
| Malappuram | 9,409 | 7,121 | 8,707 | | |
| Palghat | 4,064 | 2,169 | 3,732 | 2,045 | |
| Trichur | 6,189 | 4,305 | 5,733 | 3,982 | |
| Ernakulam | } 5,081 | 2,938 | 3,924 | 2,703 | |
| Idukki | | | | | |
| Alleppey | 1,931 | } 1,149 | 1,745 | } 1,053 | |
| Kottayam | 1,420 | | 1,321 | | |
| Quilon | 12,384 | 2,149 | 10,709 | } 3,482 | |
| Trivandrum | 4,740 | 1,720 | 3,885 | | |
| Total | 79,263 | 37,144 | 66,465 | 34,700 | |

6.81 The Plantation Corporation of Kerala, the State level agency engaged in plantation activity is now concentrating on cashew cultivation also. It took up cashew cultivation initially in 1975. Subsequently cashew cultivation was extended to areas unsuitable for rubber cultivation. The Corporation has launched another massive scheme of raising cashew in 12,000 hectares. Under the World Bank Scheme 2,320 hectares of the existing cashew plantations at Kasaragod have been taken over by the Corporation. About 750 hectares have been brought under new plantation as against a target of 1,470 hectares to be achieved in a phased programme.

Kerala State Cashew Development Corporation

6.82 The Kerala State Cashew Development Corporation manages 34 cashew factories and employs 34,575 factory workers. The procurement and distribution policy adopted by the State enabled the Corporation get a fair supply of raw nuts. The Corporation processed 58,592 tonnes of raw nuts during 1978-79. The increasing share of local raw nuts in the processing activities of the Corporation is revealed in Table 6.16

TABLE 6.16

Cashew processing by the Kerala Cashew Development Corporation

| Year | Raw nuts processed (in tonnes) | | |
|---------|--------------------------------|--------|--------|
| | Imported | Local | Total |
| 1974-75 | 31,479 | 7,960 | 39,439 |
| 1975-76 | 28,222 | 13,704 | 41,926 |
| 1976-77 | 13,654 | 7,522 | 21,176 |
| 1977-78 | 10,487 | 17,927 | 28,414 |
| 1978-79 | 4,963 | 53,629 | 58,592 |

6.83 The sales turnover of the Corporation was Rs. 33.19 crores of which Rs. 31.53 crores was from exports alone. There was an increase of Rs. 5 lakhs in the paid up capital of the Corporation during 1978-79. The outstanding liability of the Corporation towards the State Government is Rs. 7.12 crores and towards financial institutions is Rs. 8.20 crores as on 31-3-1979. The estimated loss of the Corporation is Rs. 17.58 crores against the profit of Rs. 25 lakhs in 1977-78.

Handloom Industry

6.84 The handloom industry provides employment to about 2.5 lakh persons in the State. A special feature of this industry is that it is highly concentrated in the three districts of Trivandrum, Cannanore and Kozhikode. Handloom fabrics like crepe and other dressing and furnishing materials and the fabrics for domestic use like 'thorthu', 'neriathu', double veshty etc., are woven in nearly 22,000 households and in over 2,000 small factory type establishments in the State. The northern districts of Kerala produce handloom fabrics to feed the export markets and southern districts produce the fine varieties for domestic consumption.

6.85 According to the Handloom Census of 1976 there were 90,030 looms in Kerala. The number of looms has increased to 95,000 in 1979. Nearly 80 per cent of the looms in the State are in working condition. Government have taken steps to bring more looms under the co-operative fold based on the recommendations of the Sivaraman Committee. As a result by the end

of March 1979, 39000 looms have been brought under the Co-operative sector in 493 weavers' societies. About 350 societies, including 61 factory-type societies, are in working condition. There are nearly 2000 factory units, big and small, concentrated in Cannanore and Kozhikode Districts.

6.86 Though in 1977-78 there was a decline in the production of handloom fabrics in the co-operative sector, 1978-79 witnessed an increase in production of handloom cloth. About 23.4 million metres of cloth valued at Rs. 9.6 crores was produced by the co-operative sector during 1978-79. The production of handloom cloth outside the co-operative sector however showed a decline during 1978-79. It was only 58 million metres during 1978-79 compared to 59.4 million metres during the previous year. The increase in production in co-operative sector in 1978-79 could be attributed to increased availability of working capital to the handloom societies, increase in foreign demand for handloom fabrics and co-operativisation of more looms. The year 1978-79 witnessed a better performance in the export market also. Handloom fabrics and ready made goods worth Rs. 273.20 lakhs were exported directly from Kerala in 1978-79 compared to Rs. 204 lakhs during the previous year.

6.87 The level of income and employment of the persons engaged in the handloom sector in Kerala are determined by exogenous factors like changing habits and fashions of consumers, emergence of new competitions, trade policies of other nations and mechanised production of fabrics made of close substitutes. Hence, in order to ensure stability in the industry it is essential to build up a steady and expanding local market. The local market at present is kept alive with the aid of various incentives like rebate, credit sales etc., for the intake of handloom goods. An amount of Rs. 62.33 lakhs towards subsidy for the rebate was spent by the Government during 1978-79.

6.88 There was acute shortage of yarn during 1978-79 especially due to the textile mill strike in Tamil Nadu. Timely action of the State Government helped to reduce the yarn prices which soared high during the period May 1979 to September 1979.

6.89 The success of any industry depends on the retention of market without special incentives. Diversification of production and product differentiation are the techniques to be adopted to achieve this. Production of different varieties of handloom cloth of various designs and patterns to suit the tastes and needs of different sections of the consumers, checking the cost of production without adversely affecting the wages of weavers can help the retention of the local market even without special incentives. Adoption of modern technical know-how in weaving, modernisation of looms, imparting training to weavers, modern pre-loom

and post-loom processing facilities; research organisations for evolving new designs; effective quality control and extension work to bring the traditional weavers to the new production line are certain measures to be taken to resettle the industry to the benefit of weavers as well as consumers.

6.90 The working capital position of the handloom weavers' co-operative societies improved owing to the increased share capital participation by government and enhanced cash credit limit sanctioned by the Reserve Bank of India. An amount of Rs. 6.3 lakhs towards the share capital of the primary societies and Rs. 20 lakhs towards that of the Apex Society was contributed by the State Government in 1978-79. This could attract a matching contribution from the Government of India. The Reserve Bank of India cash credit limit sanctioned to primary societies rose from Rs. 319 lakhs during 1978-79 to Rs. 410.5 lakhs during 1979-80.

6.91 With a view to assisting the handloom industry in the private sector for diversification, quality improvement and marketing of products, the Government of India sanctioned two intensive development projects, one at Trivandrum and the other at Cannanore and an Export Production Project at Cannanore having a total outlay of Rs. 410 lakhs. The Kerala State Handloom Development Corporation is the agency through which the Scheme relating to the setting up of intensive development project and the export production project is being implemented.

6.92 The intensive development project for handloom at Trivandrum started functioning in May 1977. The total outlay of the project is Rs. 185 lakhs. An amount of Rs. 69.57 lakhs was released to the Project till the end of March 1979 and the project received only Rs. 50.62 lakhs. This project envisages the organisation of 12 weavers' industrial co-operative societies with 100 looms each. Three societies have already started production, and three more are expected to commence production soon. The remaining societies are under various stages of finalisation. The total financial outlay for these societies would come to Rs. 72 lakhs. At the end of 1978-79, 740 looms were modernised by supplying weaving accessories worth Rs. 46,000 to 140 individuals. Financial assistance of Rs. 6.30 lakhs for fabrication and installation of 600 new looms in six societies was also provided. For the provision of centralised services like dyeing, bleaching, printing, mercerising and finishing a common facility service centre will be soon set up under the project.

6.93 The intensive Development Project at Cannanore covering the northern districts of Kerala has also a total outlay of Rs. 185 lakhs. Till the end of March 1979 a sum of Rs. 39.58 lakhs was released to the project out of which it received Rs. 20.62 lakhs. The Project

envisages the organisation of 14 weavers' industrial co-operative societies with 100 looms each. Seven societies have already been registered and the remaining seven expected to be registered soon. At the end of 1978-79, 1000 individual weavers were identified and modern equipments worth Rs. 1.60 lakhs were given to 640 weavers. The work on the common facility service centre at Chirakkal is in progress and is expected to be completed soon.

6.94 The Export Production Project at Cannanore, having a total outlay of Rs. 40 lakhs, has incurred an expenditure of Rs. 20 lakhs till the end of March 1979. Five societies with 100 looms were registered under this scheme. The society at Mayyil had already started production. The remaining four societies are under various stages of construction. The existing five societies at Kasargod, Taliparamba, Cannanore, Kallissery and Morazha have been taken up for expansion and of these four have gone into production.

Kerala State Handloom Development Corporation Limited.

6.95 The Handloom Development Corporation was assisting the handloom industry outside the cooperative sector and acted as a catalyst in implementing the intensive development projects. The Corporation acts as a link between the weaver and the market place eliminating the middlemen. The weaver is supplied with necessary inputs and proper outlet for his product. The trading activities of the Corporation was satisfactory during the year 1978-79. Though there was shortage of yarn, the sales turnover for the year 1978-79 was Rs. 69.71 lakhs against Rs. 19.35 lakhs during the preceding year. The Corporation has supplied 24000 huck-a-back towels to the Defence Department. The Kerala Garments Limited is a subsidiary company of the Corporation, incorporated with a paid up capital of Rs. 10 lakhs. It has received a loan of Rs. 20 lakhs from Kerala Financial Corporation. At present about 100 workers are engaged in this Company. The paid up share capital of the Corporation was raised from Rs. 53.67 lakhs in 1977-78 to Rs. 63.67 lakhs in 1978-79. The Corporation incurred a loss of Rs. 8.68 lakhs during the year 1978-79.

Small Scale Industries

6.96 In view of the acute unemployment prevailing in the State, development of modern type of small scale industries assumes considerable significance in Kerala. As a result of the State sponsorship through financial assistance and incentives, a wide range of small scale units sprang up during the year 1978-79. The total number of registered small scale units in the State as on 31-3-1979 was 13,386. During 1978-79, 1,268 small scale units were newly registered. (With the setting up of District Industries Centres in all the

districts of the State and the implementation of the Action Plan for industrialisation,) it is expected that the total number of small scale units will go up to 16,000 at the end of the current financial year viz. 1979-80. The district-wise break-up of the registered small scale units as on 31-3-1979 is given in Table 6.17.

TABLE 6.17
Registered Small Scale Industries

| District | Registered during 1976-77 | Registered during 1977-78 | Registered during 1978-79 | Total Registered units as on 31-3-1979 |
|------------|---------------------------|---------------------------|---------------------------|--|
| Trivandrum | 164 | 127 | 102 | 1685 |
| Quilon | 176 | 151 | 162 | 1543 |
| Alleppey | 168 | 143 | 148 | 1281 |
| Kottayam | 129 | 116 | 100 | 1035 |
| Idukki | 39 | 34 | 8 | 182 |
| Ernakulam | 271 | 135 | 150 | 2117 |
| Trichur | 171 | 121 | 136 | 1525 |
| Palghat | 40 | 14 | 147 | 520 |
| Malappuram | 43 | 61 | 55 | 630 |
| Kozhikode | 166 | 124 | 110 | 1222 |
| Cannanore | 148 | 146 | 150 | 1646 |
| Total | 1515 | 1172 | 1268 | 13386 |

Source: Directorate of Industries and Commerce, Kerala.

6.97 The mini industrial estate programme was continued in 1978-79 also. Action is being taken to overcome the problems confronting the entrepreneurs in the mini industrial estates. During 1978-79, 29 sites were newly selected for starting mini industrial estates in 29 panchayats. But construction work could not be started for want of title deeds of the selected sites. Additional infrastructure facilities were provided in some of the existing mini industrial estates by the Small Industries Development and Employment Corporation. New development plots could not be started in 1978-79 for want of necessary orders, but various development works were taken up in the existing development plots.

6.98 (District Industries Centres started functioning in all the eleven districts of the State from 1-7-1978.) The Deputy Commissioners and their staff working in the districts were absorbed as officers and staff of the District Industries Centres. (With the establishment of District Industries Centres, the rural industries programmes which were being implemented in the four districts of Trivandrum, Alleppey, Malappuram and Kozhikode were merged with the District Industries Centres.)

6.99 (As in the previous years revival of sick units was attended to by the Small Industries Development and Employment Corporation. The Small Industries Service Institute has prepared the guidelines for revitalisation of sick units under the small scale industrial sector. This scheme for revival of sick units is to be implemented by the District Industries Centres. Recently the Industrial Reconstruction Corporation of India has made a study of the sick units in the State and has come forward with a programme for assisting selected number of units under a phased programme.)

Small Industries Development and Employment Corporation (SIDECO)

6.100 The Small Industries Development and Employment Corporation acts as a catalyst for promoting the development of small scale industries in the State. The responsibilities of the Corporation are shared between its 12 divisions, which constitute the functional limbs of the corporate body. They are:—

(i) Research and Development Division

6.101 This division collects information on project ideas developed by the national laboratories and research institutions and these project ideas with all technical details are passed on to interested entrepreneurs. Project profiles numbering more than 500 have been obtained from approved agencies like Small Industry Extension Training Institute, Hyderabad, Kerala Industrial Training and Consultancy Organisation, Development Commissioner (Small Scale Industries) etc.

(ii) Industrial Estate and Infrastructure Division

6.102 The Corporation owns 17 conventional type of industrial estates, one functional industrial estate (for ceramics) and 36 mini industrial estates situated in different parts of the State. The infrastructure division is mainly engaged in the construction and maintenance of conventional industrial estates, development plots, mini industrial estates and in providing infrastructural facilities to industrial premises. This division is also engaged in the construction of buildings and infrastructure facilities of ancillary industrial estates, functional industrial estates, industrial complexes etc. This division has works, including spill over works, valued at Rs. 270 lakhs in hand. These works are in various stages of completion.

(iii) Production Division

6.103 The production division is managing the following 15 production and service units.

1. Ceramic Service Centre, Mangattuparamba.
2. Functional Industrial Estate for Ceramics, Quilon.
3. Government Instrument Workshop, Pappanamcode.

4. Pressure Die Casting Unit, Pappanamcode.
5. Service Workshop, Ollur.
6. SIDECO Auto Engineering, Pachalam.
7. SIDECO Equipment Complex, Thycaud.
8. SIDECO Khaitan Fans, Kalamassery.
9. SIDECO Tools, Umayanalloor.
10. Straw Board Factory, Parumala.
11. Tile Factory, Amaravila.
12. Water Proof Products, Pappanamcode.
13. Wood Workshop, Kollakadavu.
14. Wood Workshop, Puthiyara, Kozhikode.
15. SIDECO Foundry, Ottapalam.

6.104 The SIDECO Equipment Complex, Trivandrum, has been set up during 1978-79 to manufacture and supply a new variety of charkhas to the Khadi & Village Industries Board and Commission to help implement their programme of rural industrialisation. The SIDECO Khaitan Fans, Cochin, has been set up with technical and financial collaboration of M/s Khaitan Fans, Calcutta. This unit has an investment of about Rs. 64 lakhs. The unit which will generate direct employment opportunities to about 100 people and indirect employment to about 300 people is designed to bring out 50,000 fans per year. The SIDECO Foundry, Ottapalam, has recently been taken over from ENCOS. Plans to revive the unit are being implemented. The consolidated profit of all the production units of SIDECO together during 1978-79 was Rs. 6.79 lakhs.

(iv) Raw Material Division

6.105 The raw material division is at present running sales depots in all the Districts. The division procures scarce raw materials from the main producers and distributes them to the small scale units in the State. SIDECO functions as one of the public sector distribution agencies for the retail distribution of cement in Kerala through their district depots. The value of iron and steel items distributed during 1978-79 was Rs. 6.39 crores and the value of cement handled, both indigenous and imported together, was Rs. 14 crores.

(v) Machinery Division

6.106 This division is engaged in providing assistance in procuring machinery on hire purchase basis and renders assistance in selecting suitable machinery. Bridge finance is also provided in certain cases for taking delivery of the machinery in time.

(vi) Finance Division

6.107 During 1978-79 margin money assistance amounting to Rs. 21.75 lakhs was provided to 72 units outside the mini industrial estates. In the mini industrial estates assistance of Rs. 2.80 lakhs was provided to 22 units. During 1978-79 four units were assisted with an amount of Rs. 1.92 lakhs by way of share participation.

(vii) Technical Consultancy Division

6.108 This division is imparting technical consultancy services to the small scale units. The package of consultancy services include providing project reports and technical know-how secured from various approved agencies like the Small Industries Service Institute, KITCO and SIET, Hyderabad.

(viii) Entrepreneur Development Division

6.109 This division is associated with the selection of entrepreneurs in the various mini industrial estates. Special programmes for the development of harijan entrepreneurs are also conducted by it.

(ix) Imports and Exports Division

6.110 During 1978-79 exports worth Rs. 22.49 lakhs were effected through this division. The items exported include ready made garments, marine products, plywood products etc. These are exported to the USA, European countries and the Middle East.

(x) Marketing Division

6.111 The Division provides marketing assistance to small scale units. So far 497 small scale units have registered with the marketing Division. Orders worth Rs. 45.50 lakhs were received and passed on to the small units during 1978-79. The items handled vary from line materials for the Kerala State Electricity Board to leather items, pumpsets, storage batteries, chemicals, rubber and paper products.

(xi) Sick Units Rehabilitation

6.112 Hitherto the Corporation had been implementing its own scheme of resuscitation of sick units with funds provided from budgetary resources. On the basis of the revival study conducted by approved consultants and bank sanction for additional finance, SIDECO has been providing the full margin money limiting the margin normally to 25 per cent of the additional investments.

6.113 The Industrial Reconstruction Corporation of India (IRCI), Calcutta, has now agreed to associate itself with SIDECO in the sick unit revival programme. It has agreed to extend an amount of Rs. 10 lakhs as credit to the SIDECO for this purpose. Three units have been identified for assistance and an amount of Rs. 6.11 lakhs has been sanctioned for their revitalisation. The funds would be channelled through SIDECO which would be responsible for the disbursement and repayment of the funds.

(xii) Information and Publicity

6.114 This division, in association with the Directorate of Industries & Commerce, brings out a monthly

journal captioned "Vyavasaya Keralam" for dissemination of information related to the small scale sector. Booklets and pamphlets for the benefit of entrepreneurs and industrialists are also published by this Division.

6.115 The paid up capital of the Corporation as on 31-3-1979 stood at Rs. 395.36 lakhs fully subscribed by the Government. In addition the Corporation has received a loan of Rs. 176.65 lakhs from the State Government. As a result of the working of the Corporation, there was a net profit of Rs. 9.59 lakhs during the year 1978-79 as against a net loss of Rs. 13.74 lakhs in 1977-78.

Kerala Financial Corporation.

6.116 The Kerala Financial Corporation established in December 1953 under the State Financial Corporations Act 1951, is the premier State level organisation which provides financial assistance to medium and small scale industries. The assistance of the Corporation is generally by way of loan under liberalised terms and low rate of interest. There is wide acceptance among the industrial units of the assistance rendered by the Corporation.

6.117 The Corporation received 514 loan applications for a total amount of Rs. 10.39 crores during 1978-79 as against 617 applications for an aggregate amount of Rs. 9.92 crores during the previous year. Even though there is a decline in the number of applications received there is increase in the quantum of assistance sought. While 621 applications for Rs. 8.50 crores were sanctioned in 1977-78, 410 applications for Rs. 5.48 crores were sanctioned in 1978-79. One of the factors that accounted for the fall in the sanctions is the larger cancellations and reductions of loans sanctioned in the earlier years after a detailed scrutiny of undrawn loans.

6.118 Though there was reduction in the number of sanctions, the disbursements have increased considerably both in respect of the number of units newly assisted and also in the quantum of amount disbursed. The amount of Rs. 6.29 crores disbursed during 1978-79 is a new record in the history of the Corporation. A comparative statement showing the loan transactions during the last three years is presented in Table 6.18

TABLE 6.18

| Item | (Rs. crores) | | | | | |
|-------------------------|--------------|--------|---------|--------|---------|--------|
| | 1976-77 | | 1977-78 | | 1978-79 | |
| | No. | Amount | No. | Amount | No. | Amount |
| Applications received | 969 | 10.21 | 617 | 9.92 | 514 | 10.39 |
| Applications sanctioned | 394 | 6.52 | 621 | 8.50 | 410 | 5.48 |
| Amount disbursed | 302 | 5.37 | 454 | 5.21 | 473 | 6.29 |

6.119 The Corporation has taken action for the speedy disposal of the applications it received and this has reduced the number of pending cases to a great extent. During 1976-77, the total pending applications were 868, which were reduced to 640 during the next year. Again during 1978-79, the pendency has been brought down to 576.

6.120 Since its inception in 1954, the Corporation received 4871 applications for an aggregate amount of Rs. 95.42 crores and of this 3693 applications for Rs. 67.05 crores were sanctioned. The number of loans disbursed till 31-3-1979 was 2687 amounting to Rs. 39.39 crores. Details relating to the progress in the working of the Corporation, industry-wise and district-wise sanction and disbursement of loans etc., are given in Appendices 6.8 to 6.11

6.121 The small scale sector is given special consideration in the sanction of financial assistance. Every year about two-third of the total disbursement goes to this sector. During 1977-78 out of the total disbursement of Rs. 5.22 crores, Rs. 4.15 crores went to small scale units. Similarly during 1978-79 also, the share of small units, amounted to Rs. 5.00 crores out of Rs. 6.30 crores disbursed. A statement showing the cumulative figures of the loan transactions of the Corporation as at the end of 1978-79 is given in Table 6.19

TABLE 6.19
Loan Transactions (Cumulative Figures) of the Kerala Financial Corporation

| Item | (Rs. crores) | | | | | |
|-----------------------|--------------|--------|--------|--------|-------|--------|
| | Small scale | | Others | | Total | |
| | No. | Amount | No. | Amount | No. | Amount |
| Applications received | 4549 | 70.48 | 322 | 24.94 | 4871 | 95.42 |
| Effective sanctions | 3119 | 42.91 | 244 | 17.37 | 3363 | 60.28 |
| Loans Disbursed | 2476 | 26.49 | 211 | 12.90 | 2687 | 39.39 |

6.122 The usual assistance provided by the Corporation is by way of loans to a wide variety of manufacturing as well as non-manufacturing industries. The minimum and maximum assistance are fixed at Rs. 0.10 lakh and Rs. 30.00 lakhs respectively and the maximum effective rate of interest is 12½ per cent. About 50 per cent of the assistance is in the range of Rs. 0.10 lakh to Rs. 1.00 lakh.

6.123 Apart from the above general functions, the Corporation is engaged in a variety of other activities. It acts as an agency for the disbursement of the central subsidy available to the industrial units located in the most backward districts in the State. During 1978-79, the disbursements amounted to Rs. 23.29 lakhs as against Rs. 12.33 lakhs during 1977-78. The Corporation also provides foreign exchange credit. During the year 1978-79 the assistance in foreign

exchange amounted to Rs. 35 lakhs and the total assistance provided till the end of 1978-79 was Rs. 71 lakhs. Under the Technocrats Assistance Scheme, Rs. 19 lakhs has been disbursed to 17 units. Again under the scheme for providing assistance to entrepreneurs belonging to scheduled castes and scheduled tribes, Rs. 3.96 lakhs was disbursed in 4 cases. Financial assistance provided under the seed capital scheme amounted to Rs. 3.23 lakhs in four cases. Revival of sick units was taken up in collaboration with SIDECO and IRCI and 17 units have benefited under this scheme. Attempts have also been made to bring all the eligible small units under the credit guarantee scheme and as many as 1579 cases were reported for coverage under this scheme.

6.124 The Corporation has temporarily suspended the Financing of the fishing industry in view of the substantial aid already given to this sector. However during 1978-79 an amount of Rs. 106 lakhs was disbursed for the purchase of fishing boats.

6.125 The main financial resources available for the Corporation during the year were refinance from IDBI and issue of bonds. The Corporation has issued two series of bonds, having a face value of Rs. 385 lakhs during the year, as against the redemption of bonds for Rs. 100 lakhs which matured on 1-1-1979. Further, refinance to the tune of Rs. 519.70 lakhs was obtained from the IDBI. Deposits amounting to Rs. 16.00 lakhs were also accepted during the year.

6.126 The Corporation is not able to collect the repayments in time and every year the amount outstanding is on the increase. It should have collected Rs. 704.46 lakhs during 1978-79, but could collect only Rs. 199.65 lakhs leaving Rs. 505.81 lakhs as arrears. The total amount that fell due for payment upto 31-3-1979 was Rs. 2871.58 lakhs, of which the recovery amounted to only Rs. 1731.90 lakhs. The percentage of arrears to the total dues worked out to 39.68 compared to 40.02 in the previous year. The default is noticed in almost every type of industry and the arrears are mounting.

6.127 The authorised share capital of the Corporation is Rs. 5 crores and paid up capital as on 31-3-1979 amounted to Rs. 2.85 crores. The pattern of share holdings of the Corporation for the last two years is as follows:

| | 1977-78 (Rs. lakhs) | 1978-79 (Rs. lakhs) |
|---|------------------------|------------------------|
| Government of Kerala | 127.91 | 152.92 |
| Industrial Development Bank of India | 82.50 | 107.50 |
| Scheduled Banks, Insurance Companies, Co-operative Banks etc. | 22.54 | 22.54 |
| Other Parties | 2.05 | 2.04 |
| Total | 235.00 | 285.00 |

6.128 During the year 1978-79 the Corporation earned a profit of Rs. 62.79 lakhs. After providing Rs. 21 lakhs for taxation the net profit for the year worked out to Rs. 41.79 lakhs. A condensed profit and loss account of the Corporation for the last three years is given in Table 6.20.

TABLE 6.20
(Rupees in lakhs)

| | 1976-77 | 1977-78 | 1978-79 |
|---|---------------|---------------|---------------|
| <i>Income</i> | | | |
| Interest on loans | 211.00 | 257.67 | 304.65 |
| Other Income | 15.57 | 14.65 | 7.79 |
| Total | 226.57 | 272.32 | 312.44 |
| <i>Expenditure</i> | | | |
| Interest on Bonds & Borrowing | 128.09 | 163.65 | 188.00 |
| Other expenses | 40.67 | 46.15 | 61.65 |
| Net profit (before taxation) | 57.81 | 62.52 | 62.79 |
| <i>Appropriations</i> | | | |
| Provision for taxation | 20.90 | 18.19 | 21.00 |
| Special Reserve | 30.00 | 37.30 | 25.00 |
| General Reserve | 0.90 | .. | 7.73 |
| Bad Debts Reserve | .. | .. | 0.76 |
| Balance available for payment of dividend | 6.01 | 7.03 | 8.30 |

6.129 Efforts have been made to revitalise the activities of the Corporation with the help of the IDBI. The general organisational set up has been modified on functional basis, and the officers were given training in the new set up. Besides, a few branch offices have been opened so that each district headquarters, except Idukki, has an office. Arrangements have been made so as to make the district offices work in close collaboration with the District Industries Centres.

Khadi and Village Industries.

6.130 The Kerala Khadi and Village Industries Board continued its activities of giving financial assistance to co-operative societies, institutions registered under Charitable Societies Act, and individuals engaged in Khadi and 22 other village industries under the purview of the khadi and Village Industries Commission. At present there are 500 societies and institutions and about 3000 individual artisans working with the assistance received from the Board. The main activities of the Board centered round the following village industries:

1. Village oil industry
2. Village pottery industry
3. Fibre and screwpine industry

4. Blacksmithy and carpentry
5. Hand-made paper industry
6. Gur-Khandassari industry
7. Palngur industry
8. Bee-keeping industry
9. Village leather industry
10. Lime manufacturing industry
11. Non-edible oil and soap industry
12. Cottage match industry
13. Cane and bamboo industry
14. Medicinal plants and connected industry
15. Processing of cereals and pulses
16. Fruit processing and preservation industry
17. Gobar gas

6.131 In order to intensify its activities the Board has set up 75 departmental production centres, 15 sales units and 10 cotton godowns. Growth centres have also been established in Ayyanthole (Trichur district), Kalapathy (Palghat district), Elanthur (Quilon district), Kidangoor (Kottayam district) and Vattiyoor kavu (Trivandrum District).

6.132 The value of production of khadi cloth stood at Rs. 64 lakhs on 1978-79 and the sales value realised was Rs. 79.60 lakhs. Khadi production and sales value realised in 1978-79 has been lower compared to the previous year. The production and sales activities relating to other industries however showed some improvement during 1978-79. (See Appendix 6.12)

6.133 The total number of full time workers engaged in Khadi and Village industries in the State in 1978-79 stood at 72,274 compared to 67,089 in 1977-78. In addition to these full time workers, a significant number of part-time workers and casual workers also depend on khadi and village industries in Kerala. The industry provided part time employment to 39,211 persons in 1978-79 compared to 14,892 workers in the previous year. The total wages earned by both the full-time and part-time workers rose to Rs. 500.80 lakhs in 1978-79 as against Rs. 403.47 lakhs in 1977-78.

6.134 The Khadi and Village Industries Board has launched a special employment programme to provide employment to one lakh more persons through Khadi and Village Industries in the course of three years. Under this programme employment opportunities will be provided to atleast 100 persons in each of the 1000 panchayats in this state. In the first phase, 110 centres are proposed to be started utilising the land provided free of cost by local agencies. In order to increase the availability of the equipments six manufacturing centres for assembling muslin charkas and one for new model charka have been set up. In order to manage the production centres, a training centre is run at Nadathara by the Khadi and Village Industries Commission and the required personnel are being

trained. The special employment programme is proposed to be financed jointly by the Khadi and Village Industries Commission, the Kerala State Government and Nationalised Bank, the respective share of the three participants being Rs. 16 crores, Rs. 4.5 crores and Rs. 5.5 crores. Besides khadi, eight other village industries are selected for intensive development under this programme. They are blacksmithy and carpentry, village oil, cottage match, cane and bamboo, bee keeping, pottery, fibre including screw-pine fibre and lime making. Under pottery industry, the Board, has already set up 13 tile units while work is in progress relating to 7 other units.

Beedi Industry.

6.135 Consequent on the enactment of Beedi and Cigar Worker's Conditions of Employment Act 1966 the private beedi companies in Cannanore district were closed in 1968. About 12,000 beedi workers were thrown out of employment as a result of this closure. At this juncture the State Government decided to organise these workers on a co-operative basis for the production of beedies and provide employment to the displaced beedi workers to the extent possible.

6.136 As a first step 20 primary co-operative societies and one central society were organised and all the 12,000 displaced workers were enrolled as members and all the primary co-operative societies were enrolled as members in the Central Co-operative Society. The central society would make bulk purchase of raw materials and issue the same to the primary societies. The primary societies will produce beedies with the above raw materials and deliver the products to the central society. The central society functions as a financing and marketing agency and the primary societies function as producing agencies. The products are marketed by the Central society under their own trade mark. All the 12,000 beedi workers enrolled as members of societies were provided with work in 1974-75. At present these 20,000 workers are producing about 2 crores of beedies per day. The workers enjoy all the benefits such as Sunday, leave wages, provident fund, bonus etc., prescribed under the Beedi and Cigar Workers Conditions of Employment Act, 1966. The total paid up share capital of the Kerala Dinesh Beedi Workers Central Co-operative Society as on 30-6-1979 was Rs. 25 lakhs. At present the beedi societies in Kerala are confronted with problems like severe competition from private beedi companies, inadequate supply of beedi leaves owing to the dearth of railway wagons for transporting the leaves from North Indian States etc.

Mining.

6.137 Kerala possesses a sizeable deposit of mineral sands like monozite, ilmenite, bauxite, clay, silica sand, graphite etc. Geological surveys for locating the mineral deposits are being conducted by the State Mining and Geology Department on a regular basis. As in the previous year during 1978-79 also, the State Department carried out the statutory functions under the Mines and Minerals (Regulation and Development) Act, 1957 and Mineral Concession Rules, 1960 which include recommending to Government applications for grant, of mining leases and prospecting licences, grant of certificates of approval, inspection of mining leaseholds, collection of royalties on major and minor minerals, preventing of illicit mining etc. The Department also successfully carried out certain mineral investigation activities that were included as part of plan schemes. The detailed investigations for minerals carried out in the different parts of the State during the field season 1978-79 relate to the following:—

- (i) limeshell deposits at Ponnani in Malappuram District;
- (ii) reserves of sedimentary refractory clays at Mulavana in Quilon District;
- (iii) refractory clays at Velichakala in Quilon District;
- (iv) tile clay and brick clay at Kalady—Perumbavoor in Ernakulam District; and
- (v) building and ornamental stones in parts of Kozhikode District.

6.138 During 1978-79 the Department furnished information and technical advice to Government regarding exploration of minerals in the State, technical data, production and sales details of minerals to the Central Government and institutions within and outside the State.

It also participated in the joint expedition organised by the Geological Survey of India to the Silent Valley and New Amarambalam Reserve forest areas.

Details of production and sale of mineral sand and major minerals during 1977-78 and 1978-79 are given in Table 6.21 and 6.22

TABLE 6.21
Production and sale of Mineral Sands
(^{'000 tonnes})

| Mineral | During 1977-78 | | During 1978-79 | |
|-------------------|----------------|--------|----------------|-------|
| | Production | Sales | Production | Sales |
| 1. Ilmenite | 97.37 | 100.86 | 114.88 | 98.46 |
| 2. Brown Ilmenite | 0.11 | 0.07 | 0.11 | 0.12 |
| 3. Rutile | 5.36 | 5.95 | 6.09 | 6.54 |
| 4. Monazite | 0.09 | 0.07 | 0.11 | .. |
| 5. Zircon | 0.52 | 0.42 | 0.98 | 1.28 |
| 6. Sillimanite | 1.79 | 0.78 | 0.65 | 1.18 |

TABLE 6.22
Production and Sales of Major Minerals

('000 tonnes)

| Minerals | During 1977-78 | | | | During 1978-79 | | | |
|--------------------------------|----------------|-----------|-------|-----------|----------------|-----------|--------|-----------|
| | Production | | Sales | | Production | | Sales | |
| | Raw | Processed | Raw | Processed | Raw | Processed | Raw | Processed |
| 1. Glass and White Quartz Sand | 64.29 | .. | 59.10 | .. | 72.10 | .. | 79.23 | .. |
| 2. China Clay | 93.46 | 34.40 | 7.38 | 31.70 | 95.06 | 35.66 | 70.8 | 37.56 |
| 3. Fire Clay | 2.97 | .. | 2.51 | .. | 3.38 | .. | 4.30 | 0.33 |
| 4. Ball Clay | 0.70 | .. | 0.17 | .. | 0.35 | .. | 0.23 | 0.19 |
| 5. Limeshell | 100.43 | .. | 99.02 | .. | 108.47 | .. | 103.41 | .. |

6.139 Another organisation which is engaged in mineral investigation is the Kerala Mineral and Exploration Development Project started with UNDP assistance in April 1977. This Project envisages exploration and evaluation of known and partially developed deposits of iron ore, graphite, mica and gold. Since its inception the KMED Project took up geological exploration in respect of graphite in Kottayam,

Ernakulam and Trichur districts and for gemstones in Trivandrum and Quilon districts and interim reports have been prepared. The geochemical exploration team of the Project almost covered the entire stretch of the Project area and collected samples. The Project has also initiated action for evaluation of iron ore deposits of Calicut region and gold prospects of Nilambur region.

TRANSPORT AND COMMUNICATIONS

An Overview

Kerala's achievements in the field of transport and communications have been significant over the years. The State has a fairly well developed road network. The total road length has increased from 85,873 km. in 1978 to 90,440 km. in 1979, which works out to nearly 36 km. per 10,000 population. Of the total length of roads in the State more than 16,000 km. of roads are maintained by the Public Works Department. The motor vehicle density in Kerala is high compared to most other States in India. It has about 400 vehicles per hundred square kilometres of area and 600 vehicles per lakh of population during 1978-79. During the year 12,500 vehicles were newly registered in the State.

7.2 The road transport system in Kerala is fairly well developed. The passenger transport operations in the State are mainly carried by private operators. Passenger transport in the public sector is the monopoly of the Kerala State Road Transport Corporation which has shown a steady growth over the past few years.

7.3 Railways play a significant role in the State's transport system. The opening of the Trivandrum Railway Division in October 1979 is a major development in the transport sector in the State. The Trivandrum-Kanyakumari rail link is an important event in passenger service. The construction work of Ernakulam-Alleppey coastal link has been recently started.

7.4 The Cochin Port continues its dominant role in the sphere of foreign as well as coastal trade. Shipping activity recorded an improvement during 1978-79 as compared to the previous year. The total volume of traffic handled at the port during 1978-79 reached a record level 5.5 million tonnes, an increase of 5.7 per cent over that in the preceding year. The traffic handled by the intermediate and minor ports of Kerala however continues to show a declining trend. During the year only the ports of Neendakara, Alleppey, Calicut and Azhikkal handled any cargo worth mention. A recent important development in the sphere of air travel has been the starting of the Cochin-Bombay Boeing service. Construction work relating to the Calicut airport is expected to be started shortly. Kerala has an extensive system of inland canals. But these waterways require considerable improvement if they are to constitute a major mode of transportation.

7.5 Kerala is well advanced in the sphere of communication facilities like posts and telegraphs and telephones.

The average area served by a post office in the State is 8.93 sq. km. against the all-India average of 26.24 sq. km. and the population served by a post office on an average is 5858. The Kerala circle has a telephone density of 2.5 telephones per sq. km. compared to 0.7 telephones per sq.km. in India. The number of telephone exchanges in Kerala increased from 371 in March 1978 to 408 in April 1979. Nine out of the State's eleven district headquarters have Subscriber Trunk Dialling service not only to the State capital of Trivandrum but also among themselves.

Roads

7.6 Kerala State is served by a fairly well developed road network. The uniqueness of the settlement pattern and the inadequacy of railway lines in the State would however indicate the necessity for a much better network of roads. Many of the roads were formed before the introduction of modern fast moving and heavy vehicles. Hence they suffer from small width, acute bends steep gradients, weak and narrow bridges and unbridged causeways. These roads therefore require considerable improvement for bringing them to proper standards.

7.7 The total road length in Kerala as on 1-4-1979 is estimated at 90,440 kms. (See Table 7.1). This road length is inclusive of the roads under National Highways, Public Works Department, Corporations, Municipalities, Panchayats and other agencies in the State.

TABLE 7.1

Roads in Kerala under Different Departments as on 1-4-1979

| Category of Roads | Length of Roads (km.) |
|----------------------------|-----------------------|
| (1) | (2) |
| 1. National Highways | 838 |
| 2. Public Works Department | 16121 |
| 3. Panchayats | 63264 |
| 4. Corporations | 1217 |
| 5. Municipalities | 3208 |
| 6. C.D. and N.E.S. Blocks | 2905* |
| 7. K.S.E. Board | 190 |
| 8. Forest Department | 1155* |
| 9. Others | 1442* |
| Total | 90440 |

Note:—Others include roads under Irrigation Department, Projects Railways etc.

*Data relate to 1-4-1978.

7.8 Out of the total road length in Kerala, about 16,121 km. of roads are maintained by Public Works Department. The length of Public Works Department roads increased from 15,963 km. in 1978 to 16,121 km. in 1979. These roads are classified into four categories, viz. State highways, major district roads, other district roads and village roads. The distribution of Public Works Department roads by type of surface as on 1-4-1979 is furnished in Table 7.2.

TABLE 7.2
*Distribution of Public Works Department Roads by
Types of surface as on 1-4-1979 (km.)*

| Classification of Roads | Cement concrete | Black topped | Water bound Macadam | Others | Total |
|-------------------------|-----------------|--------------|---------------------|--------|-------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. State Highways | 27 | 1991 | 4 | .. | 2022 |
| 2. Major District Roads | 9 | 5136 | 281 | 147 | 5573 |
| 3. Other District Roads | 1 | 4441 | 1367 | 1050 | 6859 |
| 4. Village Roads | .. | 387 | 456 | 824 | 1667 |
| Total | 37 | 11955 | 2108 | 2021 | 16121 |

Source : Public Works Department, Kerala

7.9 The district-wise break-up of Public Works Department roads as on 1-4-1979 is shown in Table 7.3. The detailed district-wise break-up of Public Works Department roads into State highways, major district roads, other district roads and village roads is provided in Appendix 7.1 Since the main programme of the P.W.D. has been the steady improvement of roads under its control rather than new construction, the increase in length of new roads under P. W. D. over the last few years has not been significant.

TABLE 7.3
*District-wise Distribution of Public Works
Department Roads*

| District | Length in kms. |
|---------------|----------------|
| (1) | (2) |
| 1. Trivandrum | 1477 |
| 2. Quilon | 2370 |
| 3. Alleppey | 1216 |
| 4. Kottayam | 1735 |
| 5. Idukki | 1994 |
| 6. Ernakulam | 1076 |
| 7. Trichur | 1306 |
| 8. Palghat | 1186 |
| 9. Malappuram | 1069 |
| 10. Calicut | 1242 |
| 11. Cannanore | 1450 |
| Total | 16121 |

Source : Public Works Department, Kerala.

4|860]MC.

Road Transport

Motor Vehicle Registration

7.10 The motor vehicle density in Kerala is high compared to most other States in India. Kerala had 398 vehicles per 100 sq.km. of area and 616 vehicles per lakh of population in 1978-79. The corresponding figures for all India in 1975-76 were 81 and 417 respectively. The total number of motor vehicles registered in the State as on 31-3-1979 was about 1.55 lakhs. Ernakulam District has the largest number of vehicles (28,271) followed by Trivandrum (27,883), Kozhikode (15,901) and Trichur (15,122). Quilon, Alleppey, Cannanore and Palghat districts have more than 10,000 vehicles. Idukki district has the least number of vehicles (3,810).

7.11 Motor vehicles registered in Kerala consist of 49,882 cars, 43,633 motor cycles/scooters, 17,907 goods vehicles (4 wheelers and above), 15,195 taxi cabs and 27,978 other vehicles. As regards car registrations, Trivandrum leads the other districts with 10,638 cars followed by Ernakulam (9,791) and Quilon (5,419). All other districts have only less than 5,000 cars. Details regarding the district-wise distribution of motor vehicles having valid registrations in Kerala is provided in Appendix 7.2.

7.12 During 1978-79 about 12,500 vehicles were newly registered in the State. These included 6,574 motor cycle/scooters, 2,109 cars, 991 goods vehicles (4 wheelers and above) and 2,833 other vehicles (see Appendix 7.3). In the case of new registration of vehicles, Ernakulam led the other districts (2,469 vehicles) followed by Trivandrum (2,442 vehicles). Only 208 vehicles were newly registered in Idukki district during the year.

7.13 The total revenue from motor vehicle taxes and fees collected under motor vehicles taxes and Taxation of Passengers and Goods Act increased from Rs. 19.15 crores in 1977-78 to Rs. 19.75 crores in 1978-79. The revenue from this source works out to 3.9 per cent of the total estimated revenue receipts for 1978-79. The receipt under non-motor vehicles was Rs. 7.32 lakhs during the current year as against Rs. 6.46 lakhs during 1977-78.

Road Accidents

7.14 Loss or damage to property and life is associated with every accident involving transport carriers. Such accidents also result in delays in road movement. The total number of road accidents in Kerala rose from 6,140 in 1977 to 7,018 in 1978. About 7,514 persons suffered injuries during the year 1978 due to road accidents as against 6063 in the previous year. Deaths due to road accidents increased from 903 in 1977 to 1057

in 1978. (See Appendix 7.4). Inefficient and irresponsible driving of motor vehicles has been the major cause of road accidents. Out of the 7018 road accidents reported during 1978, 4832 were due to the fault of drivers of motor vehicles. In 685 cases pedestrians were responsible for the accidents. (See Appendix 7.5). Other main reasons for road accidents are defective mechanical condition of motor vehicles, fault of cyclists etc.

Passenger Transport

7.15 The private transport operators account for the major share of passenger transport operations in Kerala. Their activities are concentrated more in the northern districts of Kerala. The Kerala State Road Transport Corporation, jointly owned by the State Government and the Southern Railway on behalf of the Government of India, caters to about a third of Kerala's passenger traffic by road. The passenger transport in the public sector is the monopoly of the Kerala State Road Transport Corporation which has shown a steady growth over the past few years.

7.16 The fleet strength of Kerala State Road Transport Corporation increased from 2622 buses in 1977-78 to 2822 buses at the end of 1978-79. The number of bus schedules increased from 2315 at the end of March 1978 to 2446 at the end of March 1979. During this period the number of routes increased from 3340 to 3465. Consequently the route length also increased by 8307 km. and the distance operated by 72.91 lakhs km. About 6328 lakh passengers were carried by the State road transport services during the year 1978-79. (See Appendix 7.6). The average distance travelled by a passenger was 14.4 km. in 1978-79 as against 14.7 km. in 1977-78. The average earnings per passenger decreased from 76 ps. in 1977-78 to 74 ps. in 1978-79 while the earning per km. of buses operated increased from 210 paise to 223 paise. The basic fares as also the minimum

fares for various passenger services of the Corporation are given in Table 7.4.

TABLE 7.4
Fare Structure of Kerala State Road Transport Corporation (1978-79)

| Type of Service | Basic fare/km(ps) | Minimum fare (ps) |
|-----------------|-------------------|-------------------|
| (1) | (2) | (3) |
| City Ordinary | 5.0 | 20 |
| Fast Passenger | 5.5 | 50 |
| Express | 6.5 | 100 |
| Delux Express | 7.5 | 200 |

Source : Kerala State Road Transport Corporation.

7.17 The number of buses commissioned for service during 1978-79 was 257, as against 194 in the previous year. During the current year 141 additional schedules were introduced. During 1980-81 the Corporation has programmed to put on road 237 additional vehicles (120 for replacement and 117 for expansion of services) for the operation of 100 new schedules and also for meeting the increase in traffic in existing routes.

7.18 The capital contribution to the Corporation by the State Government was Rs. 17.38 crores and by Railways Rs. 7.67 crores as on 31-3-1979. Thus the total capital contribution to the Corporation works out to Rs. 25.05 crores. The gross revenue receipts of the Corporation increased from Rs. 43.28 crores in 1977-78 to Rs. 47.37 crores in 1978-79 while the gross revenue expenditure increased from Rs. 45.73 crores to Rs. 50.97 crores during this period. Thus the net deficit of the Corporation in 1978-79 was Rs. 3.60 crores as against Rs. 2.45 crores in the previous year. As on 31-3-1979 the accumulated loss of the Corporation was Rs. 24.60 crores.

7.19 The magnitude of expansion of the Kerala State Road Transport Corporation during the last 14 years can be seen from Table 7.5.

TABLE 7.5
Operation of the Kerala State Road Transport Corporation
(1965-66 to 1978-79)

| Item | 1965-66 | 1975-76 | 1976-77 | 1977-78 | 1978-79 |
|---|---------|---------|---------|---------|---------|
| (1) | (2) | (3) | (4) | (5) | |
| 1. No. of buses owned (As on 31st March) | 921 | 2244 | 2480 | 2622 | 2822 |
| Index | 100 | 244 | 269 | 285 | 306 |
| 2. No. of Schedules operated (As on 31st March) | 697 | 1846 | 2078 | 2315 | 2446 |
| Index | 100 | 265 | 298 | 332 | 351 |
| 3. No. of Routes under operation (As on 31st March) | 600 | 2538 | 3024 | 3340 | 3465 |
| Index | 100 | 423 | 504 | 557 | 578 |
| 4. Total Route Distance (kms.) (As on 31st March) | 19878 | 106069 | 137724 | 145434 | 153741 |
| Index | 100 | 534 | 693 | 732 | 773 |

| | (1) | (2) | (3) | (4) | (5) | (6) |
|--|-----|---------|---------|---------|---------|---------|
| 5. Gross kilometres operated (lakhs) | | 641.82 | 1798.93 | 2039.99 | 2081.27 | 2154.19 |
| Index | | 100 | 280 | 318 | 324 | 336 |
| 6. Passengers Carried (lakhs) | | 1585.30 | 5183.37 | 5111.43 | 5556.45 | 6328.49 |
| Index | | 100 | 327 | 322 | 350 | 399 |
| 7. Average Distance Travelled by a passenger | | 12.5 | 14.2 | 14.9 | 14.7 | 14.4 |
| 8. Gross Revenue Earnings (Rs. lakhs) | | 631.21 | 3091.21 | 4042.02 | 4327.86 | 4737.32 |
| 9. Passenger Earnings (Rs. lakhs) | | 586.78 | 3044.51 | 4012.61 | 4310.02 | 4675.26 |
| 10. Average Earnings per passenger (paise) | | 37.00 | 57.4 | 76.0 | 75.7 | 74.3 |
| 11. Earnings per kilometre of buses operated (paise) | | 93.80 | 173.00 | 198.0 | 209.9 | 222.6 |
| 12. Earnings per vehicle on Road per day (Rs.) | | 229.0 | 491.0 | 558.0 | 569.01 | 599.2 |
| 13. Gross Revenue Expenditure (Rs. lakhs) | | 590.66 | 3502.23 | 4176.39 | 4573.14 | 5097.27 |

Source: Kerala State Road Transport Corporation.

Goods Transport

7.20 A substantial portion of the movement of goods in the State is through mechanised road transport constituted mainly by lorries. Though no reliable data regarding the volume of goods traffic by road is available the number of goods vehicles registered in the State every year is indicative of the total volume of goods traffic by road. The number of goods vehicles (4 wheelers and above) registered in the State has increased from 10,357 as on 31-3-1968 to 17,907 on 31-3-1979 (See Table 7.6).

TABLE 7.6
Number of Registered Goods Vehicles

| Year (as on 31st March) | Number of Vehicles | Index |
|-------------------------|--------------------|-------|
| (1) | (2) | (3) |
| 1968 | 10357 | 100 |
| 1974 | 13921 | 134 |
| 1975 | 15875 | 153 |
| 1976 | 15882 | 153 |
| 1977 | 17165 | 166 |
| 1978 | 17755 | 171 |
| 1979 | 17907 | 173 |

7.21 It may be noted that 2546 goods vehicles registered in Kerala have permits to operate in other States and 1623 vehicles registered in other States have permits to operate in Kerala.

7.22 In addition to the existing inter-state and zonal permit system, a scheme for the grant of National Permits aimed at facilitating free flow of goods traffic throughout the country was introduced in 1975-76. The State has a quota of 400 permits under this scheme which were fully issued by 31-3-1979 to the following operators.

| | |
|------------------------------------|----|
| (1) Existing Inter-State operators | 92 |
| (2) Existing Intra-State operators | 84 |

| | |
|-------------------------|------------|
| (3) Ex-army personnel | 15 |
| (4) Unemployed drivers | 65 |
| (5) Other entrepreneurs | 144 |
| Total | 400 |

Railways

7.23 Kerala has at present 773.64 km. of broad-gauge lines (with about 66 km. of double line track) and 112.71 km. of metre-gauge railway lines. The opening of the Trivandrum-Kanyakumari Rail service is an important event in passenger service. There are altogether 179 railway stations within the State including train halts.

7.24 The opening of the Trivandrum Railway Division, the 53rd Division in the country and the second in Kerala, in October 1979 is also a major development. This full fledged division at Trivandrum will have jurisdiction over Shoranur—Ernakulam—Cochin Harbour, Ernakulam—Trivandrum and Trivandrum—Kanyakumari sections. The Railway Board is now considering the establishment of a railway unit which could provide large scale employment opportunities. Since the State is deficit in foodgrains the creation of the new railway division will not only ensure smooth movement of foodgrains into Kerala but also coordinate goods movement for the entire region from Trivandrum to Mangalore. An area of 1.32 hectares in the Trivandrum Guest House (Residency) compound has been handed over to the railway authorities free of cost for constructing buildings to house the offices of the railway division at Trivandrum. The additional guest house in the compound is now being utilised for running the office of the railways. Measures are also under way to acquire about 14 hectares of land near Poojapura for construction of staff quarters.

7.25 Relating to the goods traffic originating at different railway stations in Kerala it may be mentioned

that during the year 1978-79 the overall freight earnings have declined to Rs. 1847.95 lakhs compared to Rs. 2092.74 lakhs in 1977-78. The number of wagons loaded also declined to 1131,467 from 171,169 during this period. District-wise details of goods traffic originating at different railway stations in Kerala State are furnished in Appendix 7.7.

Air Transport

7.26 Air transport services are operated at present from the two Airports of Trivandrum and Cochin. The northern part of the State however has no air transport facilities. Early construction of an Air port at Calicut and expansion of the Cochin and Trivandrum Airports are the projects in this sector of development which have been approved by the Union Ministry of Tourism and Civil Aviation. The scheme for the Calicut air port has been revised and will now cost Rs. 1.5 crores. Construction work on the Airport is expected to be started soon. It is proposed to expand Trivandrum Airport further for the operation of Boeing 747. An international terminal block would be established at the Trivandrum Airport solely for the benefit of passengers taking inter-national flights. The State Government have initiated steps for the acquisition of some more land for the purpose. The idea is to develop Trivandrum Airport as another gateway to India from Sri Lanka, Male and Gulf countries.

7.27 There is urgent need to improve the facilities in Trivandrum Airport. Handing over the Trivandrum Airport to the International Airport Authority, expansion of the Airport to take care of the passenger needs and simplification and modernisation of the luggage clearance system are some of the measures under consideration.

7.28 The starting of the Cochin-Bombay Boeing Service is an important recent development in the sphere of air travel in Kerala. The Civil Aviation Ministry proposes to have daily services from Trivandrum to one point or the other in the Gulf region.

7.29 In this context, mention may be made of the proposal submitted to the Union Government for the third level air services in the country. To start with, 14 places in the north-eastern region would be connected and operated by the Indian Airlines as suggested by the National Committee on Transport Policy. Where the Indian Airlines is not able to operate the feeder services the State Governments would be allowed to operate such services. The southern States are together planning a joint-sector project for the purpose. This joint sector project mooted for the third level Airline in the southern States envisaged the linking of 24 towns in the south.

Kerala Government has favoured the project which envisages equity participation by the southern States of Tamil Nadu, Andhra Pradesh, Kerala and Karnataka. Of the 24 points proposed to be served by the airline Calicut, Cochin, Trivandrum, Alleppey and Kottayam and Thekkady are in Kerala State. The Airline which will be Bangalore-based hopes to go into operation by the end of 1980. After three years of operation it could become an air taxi service making air commutation much easier.

Inland Navigation

7.30 Inland waterways are an important mode of transportation in Kerala. The inland waterways of the State have considerable potential for both passenger and goods transport. The total length of navigable waterways in the State is about 1900 kms. The main waterway is the West Coast Canal which is formed by linking a series of backwaters and lakes and has a length of about 555 kms. There is also scope for navigation in the fortyone west flowing rivers of the State. In the summer season all these rivers are only partly navigable due to silting. These rivers and canals need constant dredging to make them fit for regular navigation.

7.31 Water transport services in the State are being operated by the State Water Transport Department, the Kerala State Road Transport Corporation and Kerala Inland Navigation Corporation. The State Water Transport Department is operating services from Alleppey on routes north of Quilon upto Ernakulam and in the Kuttanad area. At the end of 1978-79, the Department was operating services in 67 routes covering a gross route distance of 7300 kms. The number of schedules operated increased from 219 in 1977-78 to 240 in 1978-79. The Department has in possession 71 passenger boats having a total seating capacity of 6351 persons. During 1978-79 fifty-five boats were in operation and nearly 95 lakh passengers were carried in these boats. The number of passengers carried increased by over 5 lakhs during the year. The total revenue collected in 1978-79 was Rs. 66.70 lakhs compared to Rs. 61.46 lakhs in 1977-78. The total expenditure however increased from Rs. 75.65 lakhs in 1977-78 to Rs. 83.41 lakhs in 1978-79. The State Water Transport Department employs about one thousand persons.

7.32 The Kerala State Road Transport Corporation possesses 11 boats for operating their ferry services in the Cochin Harbour area. The seating capacity of these ferry boats is 1510. More than 111 lakh passengers made use of the service in 22 routes during 1978-79 and the average earnings per passenger was

22.7 paise. The number of schedules operated per day during 1978-79 was 336. The expenditure incurred by the Corporation for operating the ferry services during 1978-79 was Rs. 37.30 lakhs as against a revenue yield of Rs. 25.34 lakhs.

7.33 The main objective of the State owned Kerala Inland Navigation Corporation Limited (KINCO) is to develop and promote cargo movements by waterways. During 1978-79 the Corporation concentrated on passenger service operations and had a revenue of Rs. 1.07 lakhs from service operations and Rs. 0.17 lakhs from hiring of boats. The Corporation is presently conducting two service operations one from Ernakulam to Murukkumpadam and the other from High Court to Bolghatty. These services have been developed into a double schedule operation as against last year's single schedule operation. At present the Corporation is having a fleet of two tug boats, one passenger boat and one barge. The barge and the passenger boat were acquired only during this financial year viz. 1979-80. The construction of one more passenger boat and one more barge is nearing completion. The Corporation's high speed tugs ensure quicker delivery and the barges have unique facilities like pilfer-proof hatches which could be locked, weather proof hatch covers, cargo unloading devices etc., which make the barges quite flexible for any type of load. The Corporation proposes to give orders for one more passenger boat and two barges during the current year. It has also plans for setting up a workshop at Thevara, Cochin. Cargo booking centres are being opened at Alleppey, Kottayam and Mattancherry, by employing agents.

Ports and Harbours

7.34 Ports in Kerala have a significant role in the State's transport system. In addition to the major port of Cochin, Kerala has three intermediate ports at Alleppey, Neendakara and Calicut and ten minor Ports at Trivandrum, Quilon, Munambam, Ponnani, Beypore, Badagara, Tellicherry, Cannanore, Azhikkal and Kasargod spread along the State's long coast line of 580 kms. The major port of Cochin is under the control of the Central Government while the intermediate and minor ports are under that of the State Government. All the intermediate and minor ports are lighterage ports and do not provide berthing facilities for ocean going steamers. The business at these ports is slack during the monsoon periods. The traffic intended for the hinterland of these ports is mostly handled at the major port of Cochin during the monsoon periods. Among the intermediate and minor ports only five ports viz. Neendakara, Alleppey, Beypore, Calicut and Azhikkal handled any traffic worth mention during the past few years.

4,860 MC.

7.35 The total traffic handled in all the intermediate and minor ports of Kerala has declined steadily from 16.95 lakh tonnes in 1961-62 to 1.96 lakh tonnes in 1978-79. During the previous year 2.37 lakh tonnes of cargo was handled at these ports while during the current year the tonnage of cargo handled came down to the lowest ever recorded figure of 1.96 lakh tonnes. During the year only the ports of Neendakara, Alleppey, Calicut and Azhikkal handled any cargo worth mention. In the tonnage of cargo handled during the year Neendakara port tops the list followed by Calicut. During 1978-79, 25 steamers having a tonnage of 88,686 tonnes called at the intermediate and minor ports of Kerala as against 40 steamers having a tonnage of 97,329 tonnes in the previous year. In addition 647 sailing vessels of 81,001 tonnes also called at these ports during 1978-79 as against 890 sailing vessels of 99,148 tonnes in 1977-78.

7.36 The State Port Department owns floating crafts costing nearly Rs. 10 crores. The revenue collected at the intermediate and minor ports during 1978-79 was Rs. 13.03 lakhs as against Rs. 13.65 lakhs during the previous year.

7.37 As part of streamlining the functioning of the State Ports Department, the Harbour Engineering Wing and the Hydrographic Survey Wing were placed directly under the administrative control of the Development Department. They are now functioning independently of the Port Directorate even though they form part of the Port Organisation in the State.

7.38 The Hydrographic Survey Wing has been organised into three units namely (1) the Headquarters Unit at Trivandrum, (2) the Northern Range Organisation with headquarters at Beypore and (3) the Southern Range Organisation with headquarters at Neendakara. The Hydrographic Survey Wing has been engaged in important investigation works in connection with the development of minor ports and fishing harbours. It has also played an active role in the commissioning of Neendakara port as a lighterage port. On the basis of the recommendations of the Central Water Power and Research Station an approach channel to Beypore wharf was dredged out and the Beypore port was opened for coastal shipping. The survey fleet at present at Beypore includes a steel-hulled catamarine type survey vessel with latest equipments, a wooden 36' survey vessel and two smaller shallow drafted craft of 20 feet size, one self propelled and the other dumb. Acquisition of some latest electronic position-fixing equipments is under active consideration.

7.39 A dredging unit for Ports was initially formed in January 1968 with a qualified Marine Engineer as Dredging Superintendent with a Grab Dredger, a

tug and three Hopper Barges. In 1969, CSD Neendakara, a cutter suction dredger, was acquired. With this dredger, capital dredging of the inner basin at Neendakara was completed in 1970 and the port was commissioned as a lighterage port in 1971. In 1974 CSD Meena, a seagoing cutter suction dredger, built at Mazagon Dock, Bombay, was acquired to the dredging fleet. This dredger was used in Beypore for cutting open an approach channel to Beypore wharf. Some dredging in the port of Azhikkode was also carried out.

7.40 The Kerala Institute of Nautical Studies, functioning under the Port Department, was established at Vizhinjam in September 1977. The first batch of 40 seamen cadets underwent training in the Institute from February to August 1979. It may be mentioned in this context that Kerala is the first State in India to start a course in seamanship. It is also intended to carry out refresher course for Master Grade III of the Department. Training course for syrang for the mechanised boats would also be taken up shortly.

7.41 The Harbour Engineering Wing has been entrusted with the responsibility of investigation and construction of cargo and fishing harbours in the State. The investigation and model studies for cargo and fishery harbours at Neendakara, Ponnani, Beypore and Azhikkal and for the fishing harbours at Thalai and Munambam were undertaken. After detailed investigation and model studies development plans for the Beypore port as an all weather port have been finalised in two stages of development. As the first stage an estimate for Rs. 111.96 lakhs have been sanctioned for providing a channel with 6m. depth in the sea portion and 5.5m. depth in the river portion and the work has been taken up as a centrally sponsored scheme. The Government of Kerala have sanctioned the second stage of the Vizhinjam harbour project at a cost of Rs. 280 lakhs for the extension of the main breakwater, construction of leeward breakwater etc. The works are in progress. As a first step of development of a cargo harbour at Azhikkal it was decided to deepen the existing channel at the estuary by dredging. An estimate for Rs. 3.73 lakhs has been sanctioned and the work will commence during 1979-80. As part of the work for the development of Neendakara to cater for vessels upto 5m. draft construction of a transit shed at an estimated cost of Rs. 8 lakhs has already been taken up. Black topping work of the road over the breakwater is also in progress. Work relating to the construction of R.C. platform for electric crane at Alleppey and special repairs to S.J. Pier at Alleppey are also progressing well.

Cochin Port

7.42 There was near normalcy in the general operating conditions at the major port of Cochin during 1978-79. Shipping activity recorded an improvement during 1978-79 compared to the previous year. During

the year 994 ships having a total NRT of 57.37 lakhs called at the port as against 996 ships having a total NRT of only 52.68 lakhs in the preceding year recording an increase of 8.9 per cent in the total NRT. It is seen that more number of bulk carriers called at the port during the year. The fully containerised ships which called at the port signified a change in the complexion of shipping activity at Cochin.

7.43 The total volume of traffic handled at the port during 1978-79 reached a record level of 54.70 lakh tonnes which was 5.7 per cent more than that in the preceding year. This was the highest annual traffic ever recorded in the history of the port. Both bulk cargo and break bulk cargo traffic were at a higher level during 1978-79 compared to the preceding year. The volume of both foreign and coastal traffic was higher in 1978-79 than in the preceding year. While exports showed a slight decline by 0.6 per cent or 0.08 lakh tonnes imports recorded a substantial increase by 7.8 per cent or 3.04 lakh tonnes. But despite this increase in the total volume of trade, the value of trade handled declined from Rs. 1029.68 crores in 1977-78 to Rs. 906.61 crores in 1978-79, a fall of 11.9 per cent. The value of foreign trade taken alone recorded a decline by 12.6 per cent during the period.

7.44 There was significant increase in the gross income of the port during 1978-79. The total income during the year was Rs. 1804.99 lakhs as against 1505.99 lakhs in 1977-78. The gross expenditure of the port during the year was Rs. 1418.43 lakhs as against Rs. 1401.25 lakhs in 1977-78. There was thus a net surplus of Rs. 386.56 lakhs during 1978-79 as compared to Rs. 104.74 lakhs in the previous year. During 1978-79 the total amount of loan repaid by the port was Rs. 67.01 lakhs against Rs. 43.95 lakhs in 1977-78. The total capital expenditure (plan and non-plan) during 1978-79 was Rs. 62.84 lakhs. The value of the capital assets of the Cochin Port Trust at original cost increased from Rs. 30.1 crores as on 31-3-1978 to Rs. 31.1 crores as on 31-3-1979. The annual plan provision for the Cochin Port for the year 1978-79 was Rs. 223.00 lakhs. But the actual expenditure on plan scheme was only Rs. 61.66 lakhs. The scheme for the provision of deballasting facilities could not be taken up due to non-receipt of Government sanction. The balance payments in respect of hopper grab dredger, new hopper suction dredger etc. also could not be made. No new schemes were taken up in 1978-79. All these contributed to a shortfall in the expenditure on plan schemes of the Cochin Port.

7.45 The Sixth Plan provision for the Cochin Port Trust is Rs. 4892.02 lakhs. The important schemes included in the Plan are the Integrated Port Development project for handling POL and fertilisers, acquisition of a new dredger to replace 'Lady Willingdon', and acquisition of a high power tug. The integrated

development project of the Cochin Port which has already been cleared by the Public Investments Board envisages the construction of a fertiliser berth and an oil tanker berth besides deepening of the main channel at the port to a draft of 40 ft. from the present 35 feet to take in larger vessels.

7.46 A Rupees 4.8 crores contract for widening the Ernakulam channel has already been signed by the Cochin Port Trust and the Dredging Corporation of India marking the first step in an integrated effort to modernise and develop the Cochin port. Clearance has also been obtained for importing equipment worth Rs. 4.5 crores for handling container equipment.

7.47 Under the contract the Ernakulam channel would be widened from 450 ft. to 600 ft. The cost would be borne on the Cochin shipyard account. Apart from the intrinsic value to the port, the channel has in any case to be widened to enable transit of the 75000 dwt. bulk carriers being built by the shipyard.

7.48 The container handling equipment to be imported consist of two 40 tonne cranes, (one stationary and the other mobile) three tonne fork lifts for handling empty containers and one five tonne fork lift. Widening of the channel and acquisition of container handling equipment are two components of a larger developmental effort which will come to fruition only when the integrated development project is also finally approved and implemented.

Communications

7.49 Kerala has at present 16 postal divisions, 2 R.M.S. Divisions, 2 Postal Stores Depots units and one Mail Motor Service Division unit. As on 1-4-1979, 4352 post offices are functioning under the categories of head post offices, sub-post offices and branch post offices in the State. Kerala has 34 head offices, 1954 sub-offices and 2364 branch offices as on 1-4-1979. One hundred and thirty-four new post offices were opened during 1978-79.

7.50 The expansion of postal network since 1961 is shown in Appendix 7.12. The average area served

by a post office is 8.93 sq. kms. against the All India figure of 26.24 sq. km. and the population served by a post office on an average is 5858. (See Appendix 7.13) Division-wise data relating to post offices in the State are presented in Appendix 7.14.

7.51 Kerala is one of the most advanced States in the Indian Union in respect of telecommunication facilities. The Kerala Circle has a telephone density of 2.5 telephones per sq. km. compared to 0.7 telephones per sq.km. which constitutes the average of all tele-communication circles in India. The number of telephone exchanges in Kerala increased from 371 in March 1978 to 408 in April 1979 with a total equipped capacity of 98170 lines. There is a Telephone Exchange almost at every 11 kms. and a Telegraph Office at every 6 km. Nine out of 11 district headquarters have Subscriber Trunk Dialling service not only to the State capital but also among themselves. The Kerala Circle is also responsible for operation of wireless services between Lakshadweep islands and the Mainland, which form the life line of communications for these isolated islands.

7.52 With the commissioning of the telephone exchange at Kanjirapuzha in Palghat district and Kollappathy in Kottayam district (50 lines each) and Koorachundu in Calicut district (25 lines), the total equipped capacity of the Kerala Telecommunication Circle has crossed the mark of one lakh lines in 423 exchanges in all.

7.53 Despite the rapid growth of telecommunications the backlog of pending connections is also simultaneously increasing. There were 897 special and 13594 general connections which are pending as on 30-9-1979.

7.54 To extend the benefit of S.T.D. facilities to the public, STD Public Call Offices have been provided in all major district headquarters. These have proved extremely popular. This facility is now being further extended to taluk headquarters through public call offices in post offices.

EXPORT-IMPORT TRADE

India's Foreign Trade

There has been a significant change in the composition and direction of our trade during the last three decades. The annual average growth rate of India's exports during the period 1974-75 to 1976-77 was about 26 per cent. This rate however fell to about 5 per cent during the next two years, mainly owing to low growth of industrial development, depressed world trade and protectionist policies of developed countries. Indian economy with its developed infrastructure, reasonably strong industrial base and educated labour force is expected to do well in the export front during the eighties. During 1978-79 India did not fare quite well in the export trade. Its performance was far below that of other Asian countries such as Malaysia, Singapore, Hong Kong, South Korea and Taiwan.

8.2 Though India had a favourable trade balance of Rs. 72 crores in 1976-77, a re-emergence of trade deficit was witnessed during the next two years, viz.; 1977-78 and 1978-79. In 1978-79 the adverse trade balance rose by more than Rs. 400 crores compared to the previous year. (See Table 8.1) The deficit is likely to be more during 1979-80. Even during the seven month period April-October 1979, the trade position has indicated a deficit of Rs. 1,025 crores.

TABLE 8.1
Imports, Exports and Trade Balance

| | (Rs. in crores) | | | | |
|---------|-----------------|------------|---------|------------|---------------|
| | Imports | | Exports | | Trade Balance |
| | Amount | % increase | Amount | % increase | |
| 1976-77 | 5074 | -3.6 | 5146 | 27.3 | (+) 72 |
| 1977-78 | 6025 | 18.7 | 5404 | 5.0 | (-) 621 |
| 1978-79 | 6763 | 12.2 | 5645 | 4.5 | (-)1061 |

8.3 In 1978-79 India's Imports registered a sharp increase over that of the previous year. The value of imports rose from Rs. 6,025 crores to Rs. 6,763 crores registering an increase of about 11.5 per cent. A major contributing cause for this rise in imports is the liberalization of the import policy aimed at enlarging the production base. The rising trend in imports is discernible during the first seven months of 1979-80 also. During the period April-October 1979 imports increased by over 21 per cent compared to 17 per cent

during the corresponding period in 1978. Considering the quantity of petroleum products to be imported during the current year and a sharp rise in the prices of crude oil, the import-bill for crude oil and petroleum products alone is likely to be Rs. 3,000 crores during 1979-80, as against Rs. 1,900 crores in 1978-79. Further increase in oil prices will push up the prices of imports of petroleum based products such as fertilizers and petro-chemicals. The likely fall in production of oil seeds may necessitate more imports of edible oils. With the imports rising at a faster rate than the exports, the deficit in the balance of trade for 1979-80 is likely to be around Rs. 2,000 crores as against the deficit of Rs. 1,061 crores in 1978-79. The recent hike in crude oil prices is likely to inflate our oil import bill to Rs. 5000—Rs. 5500 crores in 1980-81, absorbing nearly four-fifth of the country's export earnings. It is therefore imperative that we reduce our dependence on oil imports, by minimising oil consumption.

Kerala's Exports

8.4 Kerala is one of the few states in the Indian union which contributes a sizeable share to India's exports through the export of traditional commodities. Though a number of commodities produced in the State are being exported through Kerala's major ports viz; Cochin Port, a sizeable portion of the items is canalised through the ports outside the state like Bombay, Calcutta and Madras. This is mainly due to historical reasons. Many of the export houses as also headquarters of exporters are located in these metropolitan areas. However the Cochin Port accounts for a major share of the export of commodities produced in Kerala. At the same time many of the products of Tamil Nadu and Karnataka are also exported through the Cochin Port. Consequently it has become difficult to make an accurate estimate of the export earnings of Kerala. Some studies like that of the Export Potential Survey of the Indian Institute of Foreign Trade reveal that Kerala's share is roughly of the order of 8 to 10 per cent of total all-India exports. Agricultural commodities such as tea, coffee, spices, cashew and traditional items like coir, handloom, marine and forest products are the major export items from Kerala. Nearly three fourth of Kerala's exports are constituted by agricultural commodities. The details of commodity-wise value of principal commodities exported from Kerala during 1978-79 mainly based on the exports through Cochin port are furnished in Table 8.2.

TABLE 8.2
Commodity-wise value of exports handled
at Cochin Port

| Commodity | (Rs. in crores) | | |
|----------------|-----------------|---------|---------|
| | 1978-79 | 1977-78 | 1976-77 |
| Tea | 63.35 | 127.70 | 61.05 |
| Pepper | 27.36 | 47.38 | 38.37 |
| Cardamom | 5.81 | 4.10 | 3.87 |
| Cashew Kernels | 75.69 | 139.21 | 99.22 |
| Coffee | 50.09 | 57.68 | 33.56 |
| Ginger | 9.05 | 8.15 | 1.97 |
| Sea Foods | 98.71 | 77.49 | 88.73 |
| Coir Products | 27.40 | 21.60 | 23.60 |
| Miscellaneous | 74.10 | 91.47 | 82.58 |
| Total | 431.56 | 574.78 | 432.96 |

Source : Administration Report, 1978-79, Cochin Port Trust.

Marine Products

8.5 During 1978-79, India achieved an all time record of earnings from the export of marine products, by exporting 86,894 tonnes valued at Rs. 234.62 crores as against 65,967 tonnes valued at Rs. 180.95 crores in the previous year. The increase is significant both in terms of quantity as well as value. The year-wise particulars of the marine exports are presented in Appendix 8.1

8.6 Kerala's export earnings from marine products increased from Rs. 77.45 crores in 1977-78 to Rs. 94.00 crores in 1978-79. The increase was significant quantity-wise also. The total quantity of marine products from Kerala rose from 29,819 tonnes in 1977-78 to 32,301 tonnes in 1978-79. But the share of Kerala in the all India marine product exports declined in terms of both value and quantity during 1978-79 compared to the previous year. From a commanding position of 70 per cent of the all India marine product export trade in terms of quantity and 85 per cent in terms of foreign exchange, Kerala State now accounts for only about 40 per cent of the India's trade in terms of both quantity and value. India's major export markets are in U. K., U. S. A., Japan, U. S. S. R. and other countries of Eastern Europe.

8.7 The marine products exported from India can be broadly grouped into four viz., frozen, canned, dried and other items. Of these four categories frozen items account for more than 90 per cent of the total exports. Canned items are exported only in small quantities. The item-wise exports in terms of percentages (quantity and value) are given in Appendix 8.2 Item-wise exports of marine products from India during the period 1975-76 to 1978-79 are presented in Appendix 8.3.

Spices

8.8 Indian exports of spices have been steadily increasing over the last two decades. India achieved a new peak in spices export during 1978-79 both in terms of quantity and earnings. During 1978-79 exports of spices amounted to 99,282 tonnes valued at Rs. 160.90 crores as against 81,228 tonnes valued at Rs. 141.88 crores in 1977-78 registering an increase of 22.2 per cent in terms of quantity and 13.4 per cent in terms of earnings. Progress in earnings from spices export and the quantities exported during past ten years has been quite remarkable. Exports during 1969-70 was only 43,975 tonnes valued at Rs. 34.48 crores. Compared with these, the increase in 1978-79 was over 125 per cent in quantity and 360 per cent in earnings.

8.9 There was no marked change in the direction of export trade in spices during 1978-79 except in the case of chillies which recorded a phenomenal quantity of exports to South Korea. East European countries continued as the main buyer of Indian Pepper. During 1977-78 it was possible for India to recapture a substantial portion of the U. S. A. Pepper market. However, during 1978-79 our exports of pepper to U. S. A. declined very steeply to 378 tonnes from 5,180 tonnes in 1977-78. In respect of cardamom Middle East continued as the major buyer. Middle East, East Asian countries and America were the main buyers of Indian Turmeric and Ginger. The particulars of the spice exports for the last five years are given in Table 8.3

TABLE 8.3
Export of spices from India

| Commodities | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | | 1978-79 | |
|-------------|---------|-------|---------|-------|---------|-------|---------|--------|---------|--------|
| | Qty. | Value | Qty. | Value | Qty. | Value | Qty. 1 | Value | Value | Qty. |
| Pepper | 26,341 | 34.48 | 24,226 | 33.88 | 20,527 | 38.24 | 24,677 | 49.41 | 15,267 | 28.07 |
| Cardamom | 1,697 | 13.41 | 2,032 | 19.50 | 949 | 13.05 | 2,952 | 45.92 | 2,977 | 59.76 |
| Chillies | 499 | 0.31 | 3,532 | 3.18 | 3,129 | 2.72 | 5,627 | 5.11 | 30,210 | 29.23 |
| Ginger | 4,681 | 3.51 | 4,786 | 4.10 | 4,461 | 5.84 | 9,762 | 13.69 | 11,795 | 12.84 |
| Turmeric | 9,227 | 4.14 | 11,755 | 4.21 | 11,796 | 4.44 | 11,253 | 8.30 | 10,278 | 11.03 |
| Others | 11,861 | 6.74 | 15,620 | 7.85 | 20,095 | 11.69 | 26,957 | 19.35 | 28,765 | 19.97 |
| Total | 54,306 | 62.59 | 61,951 | 72.72 | 60,957 | 75.98 | 81,228 | 141.88 | 99,282 | 160.90 |

Provisional

Source: Director General, Commercial Intelligence, Calcutta.

4|860|MC.

Pepper

8.10 Kerala has a near monopoly for pepper production in India. Till 1978-79 pepper was the main foreign exchange earner among spices. During 1978-79 pepper lost its position to cardamom. Exports of pepper during 1978-79 were only to the tune of 15,268 tonnes valued at Rs. 28.07 crores as against 24,678 tonnes valued at Rs. 49.51 crores in 1977-78. Major portion of the exports of pepper were to East European countries. Exports to U. S. A. recorded a very steep decline during 1978-79. Nearly 95 per cent of the total pepper exports take place through Cochin Port. Besides black pepper, pepper products also registered an increase in exports in 1978-79. Table 8.5 shows the quantity and value of pepper exported from India and through the Port of Cochin during 1975-76 to 1978-79.

TABLE 8.5
Export of Pepper

| Year | India | | Exports through Cochin Port | |
|---------|-------------------|-------------------|-----------------------------|-------------------|
| | Quantity (Tonnes) | Value (Rs.crores) | Quantity (Tonnes) | Value (Rs.crores) |
| 1975-76 | 24,226 | 33.88 | 26,978 | 32.82 |
| 1976-77 | 20,527 | 38.24 | 24,098 | 38.37 |
| 1977-78 | 25,250 | 50.05 | 26,150 | 47.38 |
| 1978-79 | 15,268 | 28.07 | 18,814 | 27.36 |

Ginger

8.11 There has been a significant increase in the production of ginger in recent years in Kerala. During 1978-79 India exported 11,796 tonnes of ginger valued at Rs. 12.84 crores as against 9,762 tonnes valued at Rs. 13.96 crores in 1977-78, registering an increase in quantity but decline in earnings. The decline in earnings was due to lower unit value realisation. In respect of quantity exported 1978-79 was an all-time record year for ginger exports. Crop set-backs in ginger producing countries coupled with higher demand especially from West Asian countries and U.S.A. contributed to this increase in exports. Indian ginger has comparatively higher fibre content and is imported mainly by Near East countries where consumption of this item is increasing rapidly. The data on the export of ginger from Kerala and India as a whole is shown in Table 8.6.

TABLE 8.6
Export of Ginger from Kerala/India
1975-76 to 1978-79

| Year | Kerala (Cochin Port) | | India | | Kerala's Share in India Exports in percentage | |
|---------|----------------------|-------|---------------|-------|---|-------|
| | Quantity in tonnes | | Rs. in crores | | | |
| | Qty. | Value | Qty. | Value | Qty. | Value |
| 1975-76 | 2896 | 2.13 | 4786 | 4.10 | 60.51 | 31.95 |
| 1976-77 | 1816 | 1.97 | 4461 | 5.84 | 40.71 | 33.73 |
| 1977-78 | 7107 | 8.15 | 9762 | 13.69 | 72.80 | 59.53 |
| 1978-79 | 9264 | 9.05 | 11796 | 12.84 | 78.54 | 70.48 |

Turmeric

8.12 Turmeric exports from India attained a new peak in export earnings during 1977-78 at Rs. 11.03 crores as against Rs. 8.3 crores in 1977-78. The quantity of turmeric exported during 1978-79 was 10,258 tonnes only about 8 per cent of the total quantity of turmeric produced in the country is exported. Of the turmeric exported from India during 1978-79 more than 30 per cent of the share is that of Kerala. The recent big spurt in export prices of turmeric has prompted Government of India to impose an export duty of Rs. 2,000 per tonne. This duty works out to about 20 per cent of the export price. Middle East Countries, East Asian Countries and North American Countries were the main buyers of Indian, Turmeric during 1978-79 also. Table 8.7 gives a picture of the export of turmeric from Kerala and India from 1975-76 to 1978-79.

TABLE 8.7

Export of Turmeric from Kerala and India 1975-76 to 1978-79
(Quantity in tonnes)

| Year | Kerala (Cochin Port) | India | Kerala's Share in All India Exports in Percentage |
|---------|----------------------|----------|---|
| | Quantity | Quantity | Quantity |
| 1975-76 | 2131 | 11755 | 18.13 |
| 1976-77 | 1746 | 11796 | 14.80 |
| 1977-78 | 3251 | 9319 | 35.89 |
| 1978-79 | 2824 | 10258 | 27.53 |

Cardamom

8.13 India's cardamom production in 1978-79 is 4,500 tonnes. India produces 70 per cent of World Cardamom production and accounts for 65 per cent of the world exports. Exports of cardamom during 1978-79 registered an all time record in earnings and ranked as the major foreign exchange earner among spices for the first time pushing pepper to the third place. India exported 2,903 tonnes of cardamom small valued at Rs. 59.56 crores during 1978-79 registering increase both in terms of quantity and earnings compared to the exports of 2,736 tonnes valued at Rs. 45.50 crores in 1977-78. This achievement was possible as a result of better crop, better price and continued demand from foreign countries. This year also Middle East Countries were the main buyers of cardamom from India.

Cashew Kernels

8.14 Export of Cashew Kernels from India during January to October 1979 totalled 30,957 tonnes valued at Rs. 88.05 crores. This represented an increase of 67 per cent in quantity and 44 per cent in earnings over

the export performance in the same period last year. The United States took 1,1099 MT of Cashew Kernels accounting for 35.8 per cent of the total export while U.S.S.R. took 9,621 tonnes accounting for 31 per cent. The other leading Cashew importing countries are Japan, Australia, Netherlands, Canada, West Germany, Singapore, U.K. and Hong Kong. (See Appendix 8.4)

Cashew Shell Liquid

8.15 Export of cashewnut shell liquid from India during January to October 1979 amounted to 9,822 tonnes valued at Rs. 10.97 crores as against 4,303 tonnes valued at Rs. 2.80 crores in the same period last year. The major countries importing cashew shell liquid from India are Japan, Korean Republic, U.K., U.S.A. and Yugoslavia.

Import of Raw Cashew Nuts

8.16 Till recently two thirds of the raw nuts required for processing in India were being imported from East African countries. The Government of India has entrusted the Cashew corporation of India, a subsidiary of the S.T.C. with the task of importing raw nuts and distributing them among the factories. India today is facing the problem of dwindling supply of raw nuts from other countries. The quantity and value of raw nuts imported during 1978 and 1979 are given in Table 8.8.

TABLE 8.8

*Import of Raw Cashewnuts into India during January/
November 1978/1979*

| Countries | January/November 1978 | | January/November 1979 | |
|---------------------|--------------------------|-------|--------------------------|--------|
| | Quantity | Value | Quantity | Value |
| Tanzania | 22093 | 87049 | 33833 | 163377 |
| Madagascar | 893 | 3212 | 370 | 1653 |
| Total | 22986 | 90261 | 34203 | 165030 |
| Unit Value Rs./ Mt. | 3927 | | 4825 | |

Coir and Coir Products

8.17 India's share of coir and coir products in the world trade was 46 per cent in 1962. This has fallen to about 30 per cent in 1979. Kerala accounts for nearly 85 per cent of coir and coir manufactures produced in India. Coir and coir products exported from Kerala earns foreign exchange of the order of Rs. 25.79 crores (1978-79). The State has a virtual monopoly in the supply of white coir yarn made out of retted fibre and accounts for 90 per cent of world trade in white coir yarn. The export of coir and coir products

shows a declining trend in terms of quantity. The exports fell from 52,200 tonnes in 1970-71 to an all time low 33,300 tonnes in 1975-76. However, during the subsequent years the volume of exports has slightly improved and in 1978-79 it was of the order of 43,065 tonnes. The fall in the volume of exports may be attributed to severe competition from synthetic fibres and inadequate availability of husk for the industry. The total export of coir and coir products during the year 1978-79 was of the order of 43,065 tonnes valued at Rs. 25.79 crores as against 42,443 tonnes valued at Rs. 23.92 crores during the previous year. A preliminary analysis of the export data indicates that yarn export during the year 1978-79 was 23,536 tonnes valued at Rs. 10.13 crores as against 22,639 tonnes valued at Rs. 9.11 crores in 1977-78. The same in respect of coirmats increased from 10,748 tonnes valued at Rs. 8.29 crores to 10,954 tonnes valued at Rs. 9.05 crores. Similarly, export of coir mattings increased to 6,822 tonnes valued at Rs. 5.45 crores during the year 1978-79 from 6,741 tonnes valued at Rs. 5.22 crores in 1977-78. In the case of coir rugs and carpets however exports declined quantitatively from 1,228 tonnes to 1,198 tonnes. Nevertheless value-wise there was a slight increase from Rs. 99.32 lakhs to Rs. 1.00 crore. Export of coir fibre, coir rope and curled coir and rubberised coir recorded a marginal decline during the year under review. The product-wise export earnings for the last few years are given in Appendix 8.5.

8.18 It may be particularly mentioned that about 99% per cent of the total exports of coir and coir products are from Kerala. Appendix 8.6 and 8.7 show the details of exports for the last three years along with the share of Kerala in the total exports.

Coffee

8.19 Among the coffee producing countries, India can be considered only as a small producer. India accounts for about 2 per cent of the total world production of coffee. Of the country's total production of coffee 40 per cent is absorbed in the domestic market and 60 per cent is exported. India's exports of coffee increased from 19,700 tonnes valued at Rs. 7.22 crores in 1960-61 to 66,369 tonnes valued at Rs. 158.10 crores in 1978-79. There was a considerable decline in the export earnings of coffee during 1978-79. But in terms of quantity exported, there was an increase during the year. The reasons for the low earnings despite an increase in the quantity exported was the decline in the price of coffee in the world market. Kerala's share of exports of Indian coffee cannot be properly assessed. But more than 90 per cent of coffee produced in the State is of exportable quality. Coffee exports through the Cochin Ports and export by India as a whole are presented in Appendix 8.8.

Tea

8.20 The Indian tea Industry is in a very bad shape. According to the Tea Board, India exported 166260 tonnes of tea during 1978-79 valued at Rs. 328.56 crores as against 221,520 tonnes valued at Rs. 563.72 crores during 1977-78. Of late, the tea exports have been picking up following the abolition of the export duty. The exports of tea during the first quarter of 1979-80 were 43.3 million kg. which was 33 per cent higher than the exports during the comparable period of the previous year. If the current trend is any indication, the total exports in 1980-81 would be around 200 million kg. against 166 million kg. during 1978-79. Following the improvement in exports and the likely decline in domestic production, the tea prices may continue to increase during the coming months.

8.21 Tea is one of the important plantation crops cultivated in Kerala. Kerala accounts for about 10 per cent of the area under tea in the country. There are no reliable estimates of exports of tea out of Kerala's production of tea.

TABLE 8.9
*Quantity and Value of Tea Exported from India/Kerala
During 1974-75 to 1978-79*

| Year | India | | Kerala (Cochin Port) | |
|---------|-------------------------|-----------------------------|-------------------------|------------------------------|
| | Quantity (in Tonnes) | Value (in Rs. crores) | Quantity (in tonnes) | Value (Rs. (in crores) |
| 1974-75 | 229500 | 228.06 | 48271 | 41.29 |
| 1975-76 | 212300 | 236.81 | 42315 | 41.11 |
| 1976-77 | 233611 | 273.14 | 52360 | 61.05 |
| 1977-78 | 221520 | 563.72 | 64322 | 127.70 |
| 1978-79 | 166260 | 328.56 | 43017 | 63.35 |

8.22 The important countries which are importing Indian tea are U.K., U.S.S.R., U.A.R. Afganisthan, U.S.A., Iran and Poland. Exports of packaged tea also contributed to the expansion of export earnings from tea. This gives considerable scope for increasing the tea exports from India during the coming years.

Imports

8.23 The total imports during 1978-79 through the Cochin Port recorded an increase of 3.04 lakh tonnes over the preceding year. The volume of coastal imports handled during 1978-79 recorded a decline to 4.15 lakh tonnes from 4.46 lakh tonnes handled in the preceding year while the volume of foreign imports showed an increase to 38.14 lakh tonnes from 34.79 lakh tonnes in 1977-78. Total imports formed 77.3 per cent of the total traffic through Cochin Port as against 75.9 per cent in the preceding year. Details of commodity-wise imports for the last 2 years are given in Table 8.10.

TABLE 8.10
Principal Imports at Cochin Port for the past two years

| | 1977-78 | | 1978-79 | |
|--|----------------------|-----------------------------|----------------------|-----------------------------|
| | Quantity (tonnes) | Percent- age to total | Quantity (tonnes) | Percent- age to total |
| 1. Rice/Paddy | 303 | 0.01 | .. | .. |
| 2. Other grains including pulses/flour | 25866 | 0.66 | 47391 | 1.12 |
| 3. Coal | 139229 | 3.55 | 111382 | 2.63 |
| 4. Cashewnuts | 37802 | 0.96 | 6532 | 0.15 |
| 5. Machinery | 6545 | 0.17 | 8976 | 0.21 |
| 6. Iron/Steel | 5649 | 0.14 | 10594 | 0.23 |
| 7. Chemicals/Chemical preparations | 1355 | 0.03 | 3216 | 0.07 |
| 8. Oil Seeds including Copra and Groundnuts | 751 | 0.02 | 4798 | 0.11 |
| 9. Rock Phosphate | 257841 | 6.56 | 321821 | 7.61 |
| 10. Fertilizers | 86287 | 2.20 | 135755 | 3.21 |
| 11. Salt | 444 | 0.01 | 16381 | 0.39 |
| 12. POL Items | 2981660 | 75.96 | 2936846 | 69.43 |
| 13. Drugs/Medicines | 11 | .. | 20 | 0.14 |
| 14. Oilman Stores, Provisions and spices | 16232 | 0.41 | 25521 | 0.60 |
| 15. Others | 365436 | 9.32 | 599448 | 14.17 |
| Total | 3925411 | 100.00 | 4228681 | 100.00 |

CHAPTER 9

SOCIAL SERVICES

Education

Kerala has the highest percentage of literacy among the States in India. The percentage of literacy in India increased from 24 to 29 during the period 1961-71. The corresponding increase in Kerala was from 48 per cent to 60 per cent. The ratio of enrolment in schools to the number of children in the corresponding age group in the State is very high when compared to those of other States in India. In the matter of children enrolled in schools from the age-group 5-9, Kerala has almost achieved 95 per cent enrolment. About 38 per cent of the state budget allocation is spent on the maintenance and development of education in Kerala. The educational investment as a proportion of the state income is 7 per cent in Kerala. A brief review of the development achieved in the different sectors of education during 1979-80 is presented below.

General School Education

9.2 During 1979-80, there were 113,89 schools in the State, consisting of 1,680 High Schools, 2,739 Upper Primary Schools and 6,970 Lower Primary Schools. The number of schools does not show any increase during 1979-80. However, during 1979-80 Government have accorded sanction for starting 111 High Schools, 113 Upper Primary Schools and 91 Lower Primary schools. Out of these 315 schools newly sanctioned, the private sector shared 283 schools. The private sector continues to dominate the field of education in Kerala holding about 62 per cent of the total schools in the State.

9.3 The total enrolment in schools has increased from 55.38 lakhs in 1978-79 to 55.93 lakhs in 1979-80. During 1978-79, the increase in total enrolment was only 0.44 lakh. The variation in enrolment in the different stages of school education between 1978-79 and 1979-80 is shown in Table 9.1.

TABLE 9.1
Enrolment in Schools—Stage-wise

| Education Level | Enrolment | | Variation |
|-----------------|-----------|---------|-----------|
| | 1978-79 | 1979-80 | |
| Lower Primary | 2644002 | 2647869 | (+) 3867 |
| Upper Primary | 1696727 | 1670329 | (-) 26398 |
| Secondary | 1197403 | 1275063 | (+) 77660 |
| Total | 5538132 | 5593261 | (+) 55129 |

4,860 MC.

9.4 Though the enrolment in the secondary stage increased by 0.77 lakh, the enrolment in the Upper Primary stage witnessed a significant fall by 0.26 lakh. Unlike the previous year, the enrolment in Lower Primary stage showed a slight increase during 1979-80. The inter-stage variations in enrolment are partly the result of changes effected from time to time in the promotion policy. Table 9.2 depicts the annual variation of enrolment in standard I between 1972-73 and 1979-80.

TABLE 9.2
Trend of Enrolment in Standard I
1972-73 to 1979-80

| Year | Enrolment in standard I (in lakhs) | Variation (in 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 | .. |

9.5 It was in the year 1972-73 that the enrolment in standard I began to decline for the first time as a result of the introduction of wholesale promotion in standard I during 1971-72. The subsequent years showed a significant fall in enrolment in standard I excepting some slight increase in certain years. In 1979-80, the number of students in standard I remained static as against a decrease of 0.39 lakh of students in the year 1978-79.

9.6 Between 1960-61 and 1979-80, the total enrolment in schools increased from 32.70 lakhs to 55.93 lakhs, showing an increase by 71 per cent. In the primary stage, the increase in enrolment was from 29.30 lakhs to 43.18 lakhs during the same period which represents an increase of 47 per cent. In the secondary stage the corresponding increase was from 3.30 lakhs to 12.75 lakhs, a nearly four fold increase. The growth rate of enrolment in the secondary stage was almost six times than that of the primary stage. Table 9.3 presents the average annual growth of enrolment in schools during the past two decades.

TABLE 9.3
Average Annual Growth of Enrolment in Schools

| Period | Average annual growth of enrolment (standard I to X) (in lakhs) |
|---------|---|
| 1961-70 | 1.56 |
| 1971-80 | 0.89 |

9.7 In the field of girls education, the progress achieved by the State is phenomenal. The percentage of enrolment of girls in schools is almost equal to that of boys. Girl students constitute 48 per cent of the total enrolment in schools, maintaining more or less the same proportion in the different stages viz. lower primary, upper primary and secondary.

9.8 The total number of teachers in schools during 1978-79 was 1.74 lakhs, consisting of 0.75 lakh in the lower primary Stage, 0.58 lakh in the Upper Primary stage and 0.41 lakh in the Secondary stage. As much as 48 per cent of the teachers in schools are women.

Higher Education (General)

9.9 The expansion of university education in Kerala was much faster than that of Primary and Secondary education in the State. The number of Arts and Science colleges which provides general higher education in the State, increased from 53 to 130 during the period 1960-79. The increase in enrolment was so rapid that the number of students in colleges increased from 0.36 lakh in 1960-61 to 1.93 lakhs in 1978-79. As in the case of school education, the private managements play an important role in the field of university education in Kerala. The private managements are running about 80 per cent of the colleges.

9.10 There was no increase in the number of colleges during 1978-79. The total number of Arts and Science colleges remained at 130, consisting of 26 Government colleges and 104 private colleges. The University of Kerala has 79 Arts and Science colleges. The remaining 51 Arts and Science Colleges are affiliated to the University of Calicut. There are no affiliated or constituent Arts and Science Colleges under the University of Cochin.

9.11 The enrolment in Arts and Science Colleges during 1978-79 was 1.93 lakhs as against 1.84 lakhs in the previous year. Stage-wise, the figures are 110,237 in the Pre-Degree level, 77,548 in the first Degree level and 6,239 in the Post-Graduate level (including students in the University Departments). During 1978-79, 455 students were undergoing full-time research in the three Universities of Kerala. Out of the total number of students in colleges, Pre-Degree course accounts for 57

per cent, First Degree 40 per cent and Post-Graduate course 3 per cent. Out of the total number of students in colleges, girls constitute 48 per cent. Rapid progress of girls education at the university level is a remarkable feature of educational advancement in Kerala. The trend in increase of enrolment at the university level is shown in Table 9.4

TABLE 9.4
Growth of Enrolment under Higher Education

| Year | Enrolment (in lakhs) | Index of growth |
|---------|----------------------|-----------------|
| 1960-61 | 0.36 | 100 |
| 1965-66 | 1.05 | 292 |
| 1970-71 | 1.53 | 425 |
| 1975-76 | 1.66 | 461 |
| 1978-79 | 1.93 | 536 |

9.12 It is evident from Table 9.4 that the enrolment at the University level has increased five-fold during the period 1961-79. The demand for higher education continues to expand which results in heavy rush of students for admission in colleges. Government have therefore introduced shift system at the Pre-Degree level in 21 Colleges during 1979.

Professional and Special Education

9.13 The institutions for imparting technical education in the State consist of six Engineering Colleges (3 Government and 3 private), 18 polytechnics (12 Government and 6 private), 21 Junior Technical schools and 89 Industrial Training Institutes (15 Government and 74 private). There is no change in the number of institutions during 1978-79 except in the case of Industrial Training Institutes. During 1978-79, two Government Industrial Training Institutes and 33 private Industrial Training Institutes have been newly started. The six Engineering colleges in the State had a student strength of 4,046 during 1978-79. Facility for post-graduate education exists in the three Government Colleges including the Regional Engineering College. Also facilities exist in the two Government colleges at Trivandrum and Trichur for part-time engineering degree course for Diploma holders. The enrolment in the polytechnics during 1978-79 was 6,837 as against 6,726 in the previous year.

9.14 The State has 19 Teacher Training Colleges consisting of 4 colleges in the public sector and 15 colleges in the private sector. The total strength in these colleges during 1978-79 was 2,339. The four Medical colleges in the State had a student strength of 3,704 during 1978-79. There are four Ayurvedic Colleges (2 Government

and 2 Private) in the State with a student strength of 689. The enrolment in the four Law Colleges (Three Government and One Private) during 1978-79 was 2044.

Expenditure on Education

9.15 Public expenditure on education in Kerala which was Rs. 18.54 crores in 1961-62 increased to Rs. 163.82 crores (Revised Estimates) during 1978-79, indicating nearly a nine-fold increase during the period. It was Rs. 151.56 crores during the previous year. The expenditure on school education has increased from Rs. 16.83 crores in 1961-62 to Rs. 136.27 crores (Revised Estimates) in 1978-79. The expenditure on school education during the previous year was Rs. 124.80 crores. Out of the total educational expenditure, 53 per cent is spent on primary education, 24 per cent on secondary education, 17 per cent on University education and 4 per cent on Technical Education. It is significant to note that the proportion of educational budget allocated for university education is on a trend of increase. During 1974-75 the expenditure on University education was 12 per cent of the total educational expenditure while it has increased to 17 per cent during 1978-79. The per capita expenditure on education in 1961-62 was only Rs. 10.72. It went up to Rs. 66.53 in 1978-79. The annual state expenditure per pupil on primary education was Rs. 49.30 in 1965-66 which has increased to Rs. 213.11 during 1978-79. The corresponding figures for secondary education are Rs. 90.37 and Rs. 361.87 respectively.

Science and Technology

9.16 In recognition of the crucial role of Science and Technology in socio-economic transformation, the State Government has been sponsoring and promoting centres of excellence in Science and Technology. The Fifth Plan targeted an outlay of Rs. 798 lakhs for Science and Technology. However, the actual expenditure during the four year period 1974-78 was only Rs. 592 lakhs. During 1978-79 a sum of Rs. 278 lakhs was spent on the various Science and Technology programmes. The anticipated expenditure during 1979-80 is Rs. 381 lakhs.

9.17 The State Committee on Science and Technology co-ordinates the various Science and Technology programmes in the State. The following are the Science and Technology Institutions/Programmes promoted by the State Government:

1. Lal Bahadur Sastri Engineering Research and Consultancy Centre.
2. Sree Chithra Thirunal Medical Centre.
3. Electronic Research and Development Centre.

4. Kerala Forest Research Institute.
5. Centre for Water Resources Development and Management.
6. Centre for Development Studies
7. Establishment of C.S.I.R. Complex
8. Centre for Earth Science Studies
9. State Committee on Science and Technology
10. State Committee on Environmental Planning and Co-ordination
11. Tropical Botanic Garden and Research Institute
12. Indian Institute for Regional Development Studies

9.18 The Sree Chithra Thirunal Medical Centre is one of the most important Science and Technology Institutions under the patronage of the the State Government. This Centre, established in 1973, provides specialised service in cardiology and neurology. The Government of India have already decided to take over the institution. But the Bill in this regard is yet to be passed by the Lok Sabha.

9.19 Kerala has a number of academic institutions in the field of Science and Technology that are devoted to under-graduate education. However, the facilities for post-graduate education and particularly for Research and Development work are not commensurate with those available at the under-graduate level or that would be expected of a State with the highest literacy rate. This points to the need for setting up an Advanced Centre for Studies in Science and Technology in Kerala. To study the various basic issues that are involved and to examine the feasibility of setting up such a Centre a Committee has been constituted by the State Planning Board in January 1980. The Committee is expected to submit its final report by the end of July 1980.

Health

Allopathy

9.20 The year 1978-79 witnessed remarkable progress in the overall performances of the modern medical care system in the State. While the number of institutions increased from 893 in 1977-78 to 898 in 1978-79, the number of beds increased from 28,862 to 29,947. Beds per lakh of population also increased from 116 in 1977-78 to 119 in 1978-79.

9.21 During 1978-79, the P.H. Centre, Pulinkunnu (Alleppey District) and the Government Dispensary, Triprayar (Trichur District) were raised to the status of hospitals. Some details relating to allopathic medical institutions in the State are furnished in Table 9.5

TABLE 9.5
Medical Institutions and Beds in Kerala

| Year | Total No. of Medical Institutions | No. of beds | No. of beds per lakh of population |
|---------|-----------------------------------|-------------|------------------------------------|
| (1) | (2) | (3) | (4) |
| 1967-68 | 518 | 20,116 | 100 |
| 1968-69 | 529 | 20,279 | 98 |
| 1969-70 | 534 | 21,167 | 100 |
| 1970-71 | 553 | 21,777 | 102 |
| 1971-72 | 571 | 23,386 | 107 |
| 1972-73 | 783 | 24,184 | 108 |
| 1973-74 | 874 | 24,106 | 106 |
| 1974-75 | 881 | 25,312 | 108 |
| 1975-76 | 885 | 27,568 | 115 |
| 1976-77 | 888 | 27,607 | 113 |
| 1977-78 | 893 | 28,862 | 116 |
| 1978-79 | 898 | 29,947 | 119 |

Source: Director of Health Services, Kerala

9.22 In spite of this all-round improvement in the medical care system, the regional imbalances within the State continue as before. The bed-population ratio is less than the desired norm in the districts of Idukki, Malappuram, Palghat, Quilon and Cannanore.

TABLE 9.6
Bed Population Ratio

| District | No. of Beds per Lakh of Population | |
|------------|------------------------------------|---------|
| | 1977-78 | 1978-79 |
| Trivandrum | 215 | 215 |
| Quilon | 74 | 75 |
| Alleppey | 153 | 157 |
| Kottayam | 146 | 148 |
| Idukki | 37 | 41 |
| Ernakulam | 125 | 127 |
| Trichur | 139 | 138 |
| Palghat | 66 | 66 |
| Malappuram | 40 | 46 |
| Kozhikode | 144 | 146 |
| Cannanore | 85 | 91 |
| Kerala | 116 | 119 |

9.23 Table 9.6 shows that Trivandrum district leads the other districts in respect of number of beds per lakh of population followed by Alleppey, Kottayam and Kozhikode. The data presented bring to fore the need for improving medical care facilities in the backward districts of the State.

Indian Systems of Medicine

9.24 During 1978-79, 6 Ayurveda dispensaries and one Marma Hospital were opened in the State. One dispensary at Thozhannur (Malappuram District) was upgraded into a hospital with ten beds.

The bed strength of four existing hospitals was raised from six to ten and that of two hospitals at the District headquarters at Quilon and Cannanore was raised from 30 to 50. Separate Marma sections were started in the ayurveda hospitals at Palghat and Ernakulam.

9.25 The number of institutions under the Indian systems of medicine increased from 468 in 1977-78 to 474 in 1978-79. In 1978-79 there were 68 hospitals and 406 dispensaries under ayurveda in the State. The number of hospital beds has shown an increase from 1362 to 1438 during this period. District-wise details of medical institutions under the Indian system are furnished in Appendix 9.22.

9.26 During 1978-79, the Department of Indian systems of medicine spent Rs. 241.26 lakhs (excluding Ayurveda Colleges) against a budget provision of Rs. 220.70 lakhs under plan and non plan accounts.

Homoeo

9.27 During the year 1978-79, 21 Government homoeo dispensaries were newly opened. Further, the Government homoeo dispensary at Pushpakandam (Idukki District) was upgraded into a 25 bed hospital. The number of homoeo hospitals and dispensaries increased from 9 and 113 in 1977-78 to 10 and 133 respectively in 1978-79. Quilon is the only District where a homoeo hospital does not exist. The number of beds in the hospitals increased from 300 to 325 during 1978-79. District-wise details of homoeopathic institutions are furnished in Appendix 9.23

Medical Practitioners

9.28 Table 9.7 gives the details of registered medical practitioners under the different systems of medicine. The number of medical practitioners under the allopathic system has registered a significant increase. Under the Ayurveda and Homoeopathy systems also the number of practitioners has increased.

TABLE 9.7
Medical Practitioners in Kerala

| System | Class of Registration | No of Registered Medical Practitioners | |
|--------------------|-----------------------|--|---------|
| | | 1977-78 | 1978-79 |
| (1) | (2) | (3) | (4) |
| 1. Modern Medicine | A | 9365 | 9,770 |
| | B | 635 | 695 |
| | Listed | 204 | 204 |
| Sub Total | | 10,204 | 10,669 |
| 2. Homoeopathy | A | 1658 | 1,784 |
| | B | 1489 | 1,489 |
| | Listed | 279 | 279 |
| Sub Total | | 3,426 | 3,552 |

| (1) | (2) | (3) | (4) |
|-------------|--------|--------|--------|
| 3 Ayurveda | A | 3,913 | 4,089 |
| | B | 6,101 | 6,100 |
| | Listed | 599 | 603 |
| Sub Total | | 10,613 | 10,792 |
| 4 Sidha | A | 42 | 42 |
| | B | 1218 | 1218 |
| | Listed | 41 | 41 |
| Sub Total | | 1301 | 1301 |
| 5. Unani | A | Nil | 1 |
| | B | 51 | 51 |
| | Listed | 5 | 5 |
| Sub Total | | 56 | 57 |
| Grand Total | | 25,600 | 26,311 |

9.29 The network of hospitals, dispensaries and health Centres existing in the State do not reveal the true picture of the quality of the health care system. Over-crowding lack of cleanliness, inefficient emergency services, un-serviceable state of many costly equipments and above all gross inadequacy of drugs and hospital supplies are some of the striking defects of Kerala's medical care system. These facts are revealed in the recently published report of the High Power Committee on Health Services. The measures recommended by the Committee, if properly implemented, will go a long way in improving the qualitative aspect of our health care system.

Family Welfare

9.30 Economic development in an under developed and over populated State like Kerala cannot make much headway unless population growth is controlled through effective family welfare measures. More than, 4.6 lakhs of people are annually added to the States population. The principal aim of the population policy in the country is to give a boost to the family planning programmes and thereby bring down the birth rate. Owing to the various family welfare measures adopted in the State the birth rate in Kerala is expected to come down during the coming years. Table 9.8 gives the decennial increase in the population and annual growth rate.

TABLE 9.8
Decadal Variation in the Population of Kerala

| Year | Population (in lakhs) | Annual Rate of Growth (%) |
|------|-----------------------|---------------------------|
| (1) | (2) | (3) |
| 1901 | 63.96 | .. |
| 1911 | 71.48 | 1.18 |
| 1921 | 78.02 | 0.92 |
| 1931 | 95.07 | 2.19 |
| 1941 | 110.32 | 1.60 |

| (1) | (2) | (3) |
|------|---------|------|
| 1951 | 135.49 | 2.28 |
| 1961 | 169.04 | 2.48 |
| 1971 | 213.47 | 2.63 |
| 1981 | 259.80* | 2.17 |

*Reserve Bank of India Currency & Finance 1975-76 Mid year population of States.

9.31 Family welfare is essentially a voluntary programme aimed at limiting the size of the family. It has now become an integrated part of a comprehensive policy covering education, health, maternity and child care, nutrition etc. Expenditure incurred by the State on family welfare programmes during the last few years is given in the Table 9.9

TABLE 9.9
Expenditure on Family Welfare Programmes in Kerala

| Year | Total Expenditure Family Welfare (Rs. lakhs) |
|---------------|--|
| (1) | (2) |
| 1966-67 | 88.58 |
| 1967-68 | 131.84 |
| 1968-69 | 184.72 |
| 1969-70 | 198.88 |
| 1970-71 | 227.43 |
| 1971-72 | 333.33 |
| 1972-73 | 324.27 |
| 1973-74 | 260.50 |
| 1974-75 | 277.75 |
| 1975-76 | 394.38 |
| 1976-77 | 632.47 |
| 1977-78 | 431.10 |
| 1978-79 (R.E) | 479.56 |

9.32 District-wise Physical achievements under family welfare programmes in the State are furnished in Appendix 9.24. Compared to the previous year, there was a marked increase in the number of PPS operations and I.U.D. insertions carried out during 1978-79. The number of PPS operations went up from 67,225 in 1977-78 to 74,959 in 1978-79 and I.U.D. insertions from 10,671 to 12,095. However, vasectomy and induced abortion programmes recorded a fall during 1978-79.

9.33 As a result of the overall improvement in the health care facilities in the State, death rate has declined to as low a rate of 7.0 per thousand population. In the present context of declining death rate, any slackening in the adoption of birth control measures will only aggravate the problem of population growth. Hence concerted efforts at reducing the rate of growth of population through birth control measures are called for.

Water Supply

9.34 In Kerala, 65 per cent of the urban population and 26 per cent of the rural population are served by protected water supply. During 1978-79, 29 urban water supply schemes were in operation and 10 schemes were under various stages of construction. Of these ten urban schemes, one was in Quilon District, two each in Alleppey, Kottayam, Trichur and Malappuram districts and the other in Palghat District. No new scheme could be completed during 1978-79.

9.35 But, with regard to the rural water supply schemes, there was remarkable progress during the year under review. Fifty-nine new schemes could be computed during this period and 272 rural schemes were under various stages of construction. Thus, by the end of 1978-79, the number of rural water supply schemes in operation increased to 722 compared to 663 at the end of the previous year.

9.36 Twenty-five out of, 29 urban schemes and 205 out of 722 rural schemes were financed by Life Insurance Corporation of India. During 1978-79 two rural water supply schemes were completed with L.I.C. assistance. Ten urban water supply schemes and 16 rural water supply schemes were also taken up with L.I.C. funds during the reference year. The amount disbursed by the L.I.C. during the year was about Rs. 515 lakhs.

9.37 As regards the sewerage schemes only the Corporations of Trivandrum and Cochin have benefited and that too only partially. During 1978-79 three more drainage schemes were taken up one each in Quilon, Trichur and Kozhikode.

Housing

9.38 Shortage in housing is a serious problem confronting the State. It is estimated that 1.5 lakh houses have to be additionally constructed every year to provide for the growing population, replacement needs and to gradually wipe out the existing shortages. A sum of Rs. 39.4 crores was spent on housing in the state sector in the successive plans upto 1978-79 and the anticipated expenditure on housing in 1979-80 is about Rs. 8 crores. It may be noted that house construction is mainly a private sector activity and Governmental participation, however earnest, can only be marginal. The present rate of annual construction of houses in the State is only of the order of about 60,000 to 70,000 houses, a majority of these being constructed by individual families without any assistance from Governmental agencies. This wide gap between the annual requirements and actual construction is accentuating the already chronic housing problem in the State. In the urban areas the exorbitant prices and the shortage of house-sites add new dimensions to the housing problem.

9.39 The housing policy of the State has been evolved taking into consideration the problems of the four categories of people in need of housing facilities viz. those who own neither a house nor a site, those who have sites but no house to live in, those who have only sub-standard houses and those who are victims of the acute shortage in rental housing especially in urban areas. Of these four categories of people the housing problems of the rural poor, especially landless agricultural labourers and other weaker sections of the community have been given greater weightage in the Government's programme of assistance for housing.

9.40 All-round efforts at providing this basic human amenity has resulted in the multiplication of agencies implementing the housing programmes. While some agencies directly construct houses for the benefit of the target groups as per terms and conditions, others provide only financial assistance for house construction. The major agencies now in the field are:—

1. The Kerala State Housing Board
2. The Various State Government Departments.
3. The Kerala Fishermen's Welfare Corporation.
4. The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes.
5. The Kerala Financial Enterprises Ltd.
6. The Town Planning Trusts Trivandrum, and Calicut
7. The Greater Cochin Development Authority.
8. The Apex Co-operative Housing Society.
9. The Co-operative Banks and Societies.
10. Local Authorities.
11. Nationalised Banks and other Commercial Banks
12. The L.I.C. of India.
13. The General Insurance Corporation of India.
14. Various Central Government Departments.

9.41 The major housing schemes sponsored by the public sector are operated mainly by four agencies viz. the Board of Revenue, the Kerala State Housing Board, the Kerala Development Corporation for Scheduled Castes and Scheduled Tribes and the Kerala Fishermen's Welfare Corporation.

A. Board of Revenue.

9.42 The major housing schemes implemented by Government through the Board of Revenue are the following:

- (i) Low Income Group Housing Scheme.
- (ii) Middle Income Group Housing Scheme.
- (iii) Village Housing Project.

The details regarding the number of houses constructed and the amount disbursed under these schemes are given in Table 9.10.

TABLE 9.10

Progress of Housing Schemes of the Board of Revenue (as on 31-3-1979)

| Details | Low Income Group | Middle Income Group | Village Housing Project | All |
|---------------------------------------|------------------|---------------------|-------------------------|---------|
| (1) | (2) | (3) | (4) | (5) |
| 1. No. of Houses Sanctioned | 7304 | 1756 | 9436 | 18496 |
| 2. No. of Houses Constructed | 6678 | 1394 | 7463 | 15535 |
| 3. Total Amount Disbursed (Rs. lakhs) | 492.63 | 276.82 | 246.96 | 1016.41 |

9.43 Under the Village Housing Project, in addition to financial assistance for house construction, house sites are allotted to landless agricultural labourers. A family of landless agricultural labourers is eligible for house site to the extent of 5 cents under the scheme. Twenty-five percent of the cost of land alone is realised from the beneficiary and that too in five annual instalments free of interest. These beneficiaries are eligible for house construction loan under the Village Housing project Scheme or other Housing Schemes like the Harijan Welfare Housing Scheme. The Scheme is implemented in the Districts of Quilon, Alleppey, Kottayam, Trichur and Palghat. Three hundred and forty landless agricultural families have been allotted house sites under the schemes as on 31-3-1979.

B. Housing Board.

9.44 The Kerala State Housing Board is the major agency in the field of housing in the State. Under its public housing Scheme the Housing Board has so far taken up 50 housing schemes involving the construction of about 8000 houses for different categories of people costing Rs. 16 crores. This includes the 643 houses constructed by the city Improvement Trust, Trivandrum. The Board has public housing schemes in almost all the districts. Under these schemes, land is acquired and developed with necessary infrastructure and divided into plots and offered to economically weaker sections like Low Income Groups and Middle Income-Group with proposals for constructing buildings. At present construction works are in progress in 26 scheme sites. The number of houses sanctioned up to the end of 1978-79 was 3008 of which construction of 1440 houses has been completed and 1163 houses were under various stages of construction by the end of 1978-79. The HUDCO has so far sanctioned Rs. 1588.11 lakhs as loans to the Housing Board for its various housing Schemes.

9.45 In addition to the public housing schemes operated by it, the Board is operating in collaboration with Government and other financial agencies several

housing schemes for the benefit of the economically weaker sections. Up to the end of 1978-79, the Board has sanctioned under its various housing schemes 27,192 housing loans to the economically weaker sections, of which 4637 houses have been completed. 1365 houses were at various stages of construction by the end of 1978-79. The following are the important housing schemes implemented by the Board exclusively for the benefit of the Economically weaker sections of the society.

(i) Housing Scheme at Chengalchoola.

9.46 The Board has conceived a housing scheme for Rs. 1.25 crores for the rehabilitation of the slum dwellers at Chengalchoola in Trivandrum City. The Scheme was started in 1977 and by 1978 October 168 houses have been completed and construction of 176 houses under the second stage is nearing completion. The total number of houses proposed to be constructed under the scheme is 700. The houses are given free to the beneficiaries and the entire cost of the scheme is met by Government.

(ii) Vadavathur Housing Scheme

9.47 This housing scheme envisages rehabilitation of 44 poor families residing by the side of the Thottumatta Bridge at Kottayam by providing houses at a unit cost of Rs. 4000 (excluding the cost of land and development). Government subsidise 50 per cent of the cost of construction and the remaining 50 per cent is given as loan recoverable from the beneficiaries.

(iii) Housing Scheme for Economically Weaker Sections of the Society

9.48 The scheme for giving financial assistance to economically weaker sections (whose annual income does not exceed Rs. 4200) for construction of houses in the land owned and possessed by them was started in 1976. So far 2192 persons were given financial assistance under this scheme. The total expenditure on this scheme is Rs. 81 lakhs.

(iv) Aided Self Help Co-operative Housing Scheme for Economically Weaker Sections in Rural Areas

9.49 This scheme implemented jointly by the Government, Co-operative sector and the Housing Board envisages the construction of one lakh houses in a period of two years at the rate of 25,000 houses in each six months period. Under the scheme financial assistance is given to the Economically weaker sections for the construction of houses at a unit cost of Rs. 3600. The sources of finance for the scheme are as follows:—

| | Rs. Per House |
|---------------------------------|---------------|
| (a) Loan from HUDCO | 1800 |
| (b) Loan from Co-operative Bank | 800 |

| | |
|--------------------------------|----------------------|
| | <i>Rs. per House</i> |
| c) Grant from Government | 500 |
| d) Contribution by Beneficiary | 400 |
| | 3,600 |

9.50 Under this scheme about 18000 houses have been completed so far and the remaining houses in the first stage are under various stages of construction.

Direct Loan schemes of the Board

9.51 The Housing Board has formulated several direct loan schemes for housing. The Board has recently taken up a housing loan scheme as a joint venture of the State Government, the Commercial Banks and the Housing Board. The scheme is to make available bank loans for construction of houses to people belonging to the economically weaker sections and the low income groups whose annual income does not exceed Rs. 7200 and who own/possess a house site and do not have a house of their own. The total amount earmarked by the various banks for the scheme is Rs. 427 lakhs. So far about Rs. 147 lakhs have been disbursed to the applicants by the different banks.

9.52 A new scheme for giving housing loan to the people whose annual income does not exceed Rs. 18,000 has been formulated by the Housing Board with loan assistance from the Kerala Toddy Workers' Welfare Fund Board. Under this scheme loans upto Rs. 31,250 or 30 per cent of the cost of construction whichever is less is granted to the applicants. The Housing Board has started paying the first instalment of loan to the applicants. So far loans have been disbursed to 431 applicants under the scheme. It is expected that the scheme will benefit 1500 applicants.

9.53 Yet another direct loan scheme being implemented by the Board is the house loan scheme for Economically Weaker Sections utilizing a loan of Rs. 75 lakhs from the General Insurance Corporation. Under this scheme loans will be issued to persons whose annual family income falls below Rs. 4200. The loan amount will range between Rs. 3000 to Rs. 5000 utilisable either for new construction or for carrying out reconstruction, repairs etc. About 1000 applications have been received for loans under the scheme and they are being processed.

9.54 The urban area housing scheme for Economically Weaker Sections, Low Income Group and Middle Income Group is a loan scheme for the construction of 2100 houses for the Economically Weaker Sections, 2000 houses for the Low Income Groups and 1080 houses for the Middle Income Groups. The scheme is implemented by the Board with HUDCO assistance. The total outlay for the scheme is about Rs. 6 crores of which HUDCO has already sanctioned Rs. 491 lakhs.

The scheme will also benefit the fixed income group employees like private school teachers, municipal workers etc.

9.55 The Board is also implementing a housing scheme exclusively for working journalists at the District headquarters with HUDCO assistance. A housing scheme for working journalists at Kottayam has been finalised and construction work of 10 buildings is in progress. The scheme involves a Government subsidy of 15 per cent.

9.56 In order to relieve the housing shortage in the major cities in Kerala, the Government have decided to construct satellite townships adjacent to major cities. The Housing Board is implementing this scheme also. The satellite township scheme in Thrikkakara at Cochin has already been started. The scheme provides for 1000 houses with shopping centres, schools, Cinema theatre, bus shelter, dispensaries etc. Land acquisition proceedings are in progress. Twenty-five acres of land has already been taken possession of and works have been started. One hundred and seventy four houses are under various stages of execution. Steps are also under way for land acquisition for similar projects in Trivandrum and Calicut.

C. Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes

9.57 The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes has taken up a massive housing programme for the benefit of Scheduled Castes and Scheduled Tribes. The Scheme is partly financed by HUDCO loans and partly by grants from State Government.

9.58 In the first series the Corporation has sanctioned 2200 houses at a unit cost of Rs. 5,000. So far construction of 2159 houses has been completed and the remaining 41 houses are at various stages of construction. The Corporation targetted to construct 10,000 low cost subsidised houses in its second series at a unit cost of Rs. 3,000. It was started in December 1978. Under this series over 20,000 applications have been received and 9392 cases have been sanctioned so far. Construction of 2966 houses has been completed. By the end of 1979-80 the target of 10,000 houses is expected to be fully achieved.

9.59 The Corporation has sanctioned a third housing scheme which envisages construction of 1000 houses at a unit cost of Rs. 7,000 for the benefit of employees engaged in unclean occupations in Calicut City Corporation. The loan amount is repayable by the beneficiaries in instalments spread over a period of 10 years with 6 per cent interest. The houses are proposed to be constructed in the land provided by the Calicut City Corporation in Malapparamba and

Nadakkavu areas. Thirty two persons have executed agreements and availed of a loan of Rs. 32,000.

9.60 As its fourth series the Corporation proposes to take up another massive subsidised housing scheme to provide 10,000 houses every year financed partly by HUDCO loans and partly by grants from Government. Each housing unit in this series will cost Rs. 3,700 of which Rs. 2,000 will be the loan portion and the balance of Rs. 1,700 plus interest and supervision charges as subsidy. The Corporation proposes to construct 10,000 houses under this series in 1980-81.

D. Kerala Fishermen's Welfare Corporation

9.61 The Kerala Fishermen's Welfare Corporation has got a massive programme for providing 25000 habitats for fishermen within a period of 3 to 4 years availing financial assistance from HUDCO. The Corporation proposes to construct 5000 houses for distribution among fishermen under colonisation programme in Government owned lands or lands to be acquired for the purpose. Another 20,000 low cost houses will be got constructed by providing financial assistance to needy fishermen at 50 per cent of the cost as grant and 50 per cent as loan.

Urban Development

9.62 The concept of planned urban development is of recent origin in India. Although development schemes for urban areas were drawn up and implemented from the beginning of the Five Year Plans, the need for planned urban development was recognised only in the Third Plan. Till March 1969, the schemes for urban development continued as a centrally sponsored programme. However, from 1st April 1969 the preparation of Master and Regional Plans was transferred to State Government with the Central Government acting only in an advisory capacity. In Kerala, the major agencies concerned with development programmes of the Urban Local Bodies and Development Authorities are the Departments of Town Planning and Municipalities and the Kerala Urban Development Finance Corporation.

9.63 The Fifth Plan targeted an outlay of Rs. 772 lakhs for Urban Development against which the expenditure for the four year period 1974-'78 was of the order of Rs. 531.37 lakhs. In the Sixth Plan 1978-83 an outlay of Rs. 1398 lakhs is provided for urban development. The anticipated plan expenditure in 1979-80 is Rs. 203 lakhs as against an expenditure of Rs. 156.92 lakhs in 1978-79. Besides this, a sizable sum is spent on urban development programmes under non-plan.

9.64 A noteworthy achievement during the year 1979 is the constitution of a High Power Town and Country Planning Board at the State level to guide and advise the various planning authorities in the State and to co-ordinate their activities.

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9.65 The Department of Town Planning with its Regional Offices at Trivandrum, Cochin and Calicut and District Planning Units at Palghat, Malappuram, Idukki, Quilon and Trichur engaged itself fully in the preparation of Master Plans, Development Plans and Traffic operation Plans for the urban local bodies in the State during the year under review. Another programme taken up during the year is the preparation of a State Spatial Development Plan, locating the important growth centres in the State and evolving policies for infrastructure development.

9.66 All the Municipal Corporations and Municipalities in the State have prepared Five Year Development Plans. The Town Planning Department has prepared Master Plans for 17 urban local bodies including the three Municipal Corporations. The financial requirements for these Five Year Plans and Master Plans exceed Rs. 800 crores.

9.67 The Kerala Urban Development Financial Corporation is providing financial assistance by way of loans to urban local bodies for executing remunerative development schemes included in the Master Plans and Five Year Plans. The Corporation has also extended financial assistance for non-remunerative civic amenity schemes such as conversion of dry type latrines into sanitary types, obtaining water service house connections etc. But a majority of the schemes taken up by the urban local bodies with financial assistance from the Corporation are remunerative undertakings such as construction of shopping centres, markets, lodging houses, bus-stands, taxi-stands, lorry-stands, comfort stations, slaughter houses, Town Halls, bunks etc. In 1978-79 the Corporation has disbursed loans to the tune of Rs. 174.2 lakhs to 20 urban local bodies for the implementation of the schemes formulated by them. During the period 1970-71 to 1978-79 the Corporation has raised Rs. 902.5 lakhs by the issue of debentures and has disbursed an amount of Rs. 1121.2 lakhs as loans to 35 urban local bodies for implementing 233 development schemes. Out of this, 205 schemes have been completed and commissioned. Majority of the pending schemes are at different stages of implementation and are expected to be completed during the current financial year. The commissioned schemes are now generating income and augmenting the resources of the urban local bodies concerned. It is worthy to note that no beneficiary urban local body has so far defaulted the repayment of principal or payment of interest to the Corporation.

9.68 Government have sanctioned in 1979 a sum of Rs. 50 lakhs to the Town Improvement Trusts, Trivandrum and Calicut for acquisition and development of land etc., for implementing the priority urban development projects of the Trusts. Under the centrally sponsored scheme for the improvement and development of small towns, the towns of Trichur,

Kottayam, Malappuram, Kayamkulam, Chengannur, Guruvayur, Badagara, Tellicherry, Perumbavoor, Alwaye and Parur for which project reports have been prepared, were selected for development during 1979-80. The State's share of the scheme alone comes to Rs. 100 lakhs for the year.

9.69 The non-remunerative Town Improvement Schemes envisage payment of financial assistance to urban local bodies for their non-remunerative undertakings such as construction of office buildings, town halls, roads, drains, culverts etc. A sum of Rs. 5 lakhs (Rs. 4 lakhs as grant and Rs. one lakh as loan) was released under the scheme in 1978-79 to the Municipal Councils of Punalur, Irinjalakuda, Kunnankulam, Malappuram and Changanacherry, and to the Municipal Corporation, Calicut for the implementation of six non-remunerative town improvement schemes. The anticipated expenditure under the scheme in 1979-80 is Rs. 10 lakhs (Rs. 5 lakhs as grant and Rs. 5 lakhs as loan) for 9 non-remunerative town improvement schemes.

9.70 Under the Slum Clearance/Improvement scheme, a sum of Rs. 6 lakhs (Rs. 3 lakhs as loan and Rs. 3 lakhs as grant) was released during 1978-79 to the Municipal Councils of Palai, Changanacherry, Chalakudy and Kayamkulam for the implementation of 6 non-remunerative schemes aimed at eradicating slums in urban areas. In addition to the above, Rs. 1.26 lakhs and Rs. 0.21 lakh were sanctioned to the Municipal Councils of Kottayam and Sherthallai respectively during 1978-79 for the implementation of the Slum Clearance/Improvement schemes already taken up by the concerned Municipalities. The anticipated expenditure during 1979-80 under the scheme is Rs. 10 lakhs to be released for the implementation of two Slum Clearance/Improvement schemes, one each in Cochin Corporation and Irinjajakuda Municipality.

9.71 During 1978-79 a sum of Rs. 73.28 lakhs was given under non-plan account to the urban local bodies by way of general purpose and specific purpose grants under the provisions of the Kerala Municipal (General Purpose Grant-in-aid) Rules, 1966 and the Kerala Municipal (Payment of Specific Purpose Grant) Rules 1967 respectively. The anticipated expenditure on this account in 1979-80 is Rs. 84 lakhs (Table 9.11).

TABLE 9.11

Non-Plan Grant Assistance to Urban Local Bodies

| Details | (Rs. lakhs) | |
|----------------------------|-------------|--------------------------|
| | 1978-79 | 1979-80 (anticipated) |
| 1. General Purpose Grants | 51.23 | 60.00 |
| 2. Specific Purpose Grants | 22.05 | 24.00 |
| Total | 73.28 | 84.00 |

Source: Director of Municipalities, Kerala.

Information and Publicity

9.72 The success of development programmes in general depends on the active co-operation and participation of the people. To ensure this the public has to be well posted with information regarding the programmes and policies of Government with the aid of a dynamic information and publicity machinery. The Public Relations Department of the Government is the principal agency for the discharge of this function. The Department is performing the dual function of enlightening the public, through the mass communication media, on the socio-economic programmes and policies of Government and keeping the Government posted with the reactions and views of the press and the public. It also promotes cultural activities. The following are some of the important activities of the Department during the year under review.

Press Academy

9.73 Government has established a Press Academy at Ernakulam. This is a major step aimed at building up a healthy and responsible press in the State. A three acre plot has been acquired at Ernakulam for construction of office building for the Academy with a conference hall, library etc., at a cost of Rs. 10 lakhs.

Publicity

9.74 During the year the Department issued 5704 press handouts and 28 publications. 'Janapatham' the monthly magazine continued during the year. The field publicity wing of the Department organised 14 rural small scale exhibitions on the various welfare programmes of the Government. The Department also participated in the All India Exhibition at Pondicherry and the International Trade Fair at New Delhi. The scheme for the distribution of community listening sets at subsidised rates/free of cost for installation at Harijan predominant areas and tribal centres was continued during the year.

9.75 The Public Relations Department is the main advertising Bureau of the Government. It also functions as the Central Agency for the issue of all advertisements of the various Departments of Government. The Department issues display advertisements to leading newspapers and sponsors special issues and supplement on developmental and welfare activities. In 1978-79 a sum of Rs. 1.31 lakhs was spent on display advertisements. During 1979-80 about Rs. 1 lakh has been spent on this account up to the end of January 1980.

Film Subsidy and Film Shows

9.76 The programme for the payment of subsidy for feature films shot fully in Kerala has started yielding results. During 1978-79 subsidy was granted to 34 films. During the current year, so far 47 films have

been granted subsidy. The rate of subsidy has been raised from Rs. 25,000 per film to Rs. 50,000.

9.77 During the year daily film shows were conducted in the 'Rangasala' in the museum premises at Trivandrum. Besides film shows were organised by the various district units of the Department. For this purpose more than 200 prints were received from the Film Division of the Government of India. In addition, 69 prints were received from the Kerala State Film Development Corporation.

Cultural Programmes

9.78 Government have introduced a new scheme for the grant of awards to professional Malayalam Dramas. Sixteen professional dramas were staged in this connection. The Film Award Night for distributing the Kerala State Award for Malayalam feature films 1977 was organised in December 1978 at Cannanore. Several cultural functions were organised by the Department in honour of distinguished guests and visitors during the year and cultural troupes, from Kashmir, Gujarat and Mangolia were received and performance arranged. The State Government has introduced a scheme for the grant of pension to Cine Artists/Technicians and their dependents in indigent circumstances. Under this scheme 78 persons have received financial assistance during the year.

Welfare of Scheduled Castes and Other Backward Classes

9.79 The scheduled caste population has increased from 17.7 lakhs in 1971 to about 22 lakhs at present. During the year 1978-79 an amount of Rs. 995.42 lakhs was spent for the development of scheduled castes and other backward classes other than scheduled tribes. Apart from this an amount of Rs. 387 lakhs was spent from the general sector schemes for the benefit of scheduled castes and tribes. The State Government after reviewing the performance of the general schemes, recommended certain special schemes such as supply of electricity to harijan colonies, water supply to colonies, provision of E. S. P. type latrines, link roads to harijan colonies, minor irrigation works and supply of coconut seedlings for the benefit of the scheduled castes. As a result of this it was so far possible to electrify 210 harijan colonies, provide protected water supply to 69 colonies, supply 2,74,182 coconut seedlings and complete 235 roads benefiting scheduled castes. With a view to ensure full utilisation of the due share of general sector outlay for the benefit of scheduled castes a special component plan for 1980-81 for scheduled castes was prepared during the year.

9.80 Majority of scheduled castes are agriculturists and a good number of them do not own land. They have benefited considerably from the land reform

measures. So far 28,607 scheduled castes were benefited by the programme for the distribution of surplus lands involving an area of 6773 hectares. A total area of 23,790 hectares of Government's Poramboke lands was also distributed to 82,448 scheduled caste families.

9.81 The rates of lump sum grants and monthly stipends paid to scheduled caste students were enhanced during the year under review. In order to effect timely payment of lump sum grants and stipends to harijan students the work relating to the award of scholarships and stipends has been entrusted to district level officers. During the year 1978-79 pre-matriculation scholarships were given to 4.5 lakhs students and post-matriculation scholarships to 16,000 students. Two cosmopolitan hostels were newly started at Trivandrum and Pattambi. New welfare hostels were opened at six places viz., Vengannur, Kunnathur, Ambalappuzha, Njarakkal, Ollur and Alanellur. One production centre was newly started at Madappally during the year under review. A model colony was established at Karikkattur in Kottayam District for settling 127 selected Harijan families. New nursery schools were started in 9 Harijan settlements at Neyyattinkara, Chirayinkil, Kottarakkara, Cochin, Thalappilly, Chittur, Peermedu, Perintalmanna and Cannanore. Assistance was given to 152 couples who entered into inter-caste marriage. During the year 1978-79 housing grants were given to 1460 families, of which 517 houses were completed and the others are under various stages of construction. Interest free housing loans were given to 52 persons. Similarly, 47 persons received interest free industrial loan and 16 received sewing machines on hire purchase basis. During the year under review 1736 families were provided with E. S. P. type latrines and 11 wells were constructed in Harijan settlements.

9.82 The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes has implemented the programmes like issue of loan for economic activities and construction of houses, for the uplift of scheduled castes and scheduled tribes. Construction of houses is a major programme undertaken by the Corporation. Under the first housing scheme the construction of 2200 houses each costing Rs. 5000 was taken up with loan assistance from HUDCO. So far 2159 houses have been completed in all respect, and 41 houses are at various stages of construction. The second housing scheme envisages construction of 10,000 low cost subsidised houses each costing Rs. 3000. So far construction of 2,966 houses has been completed under this scheme. A third housing scheme for the accommodation of employees engaged in unclean occupation in Calicut Corporation was taken during the year 1978-79. This is a loan scheme where the loan amount is repayable by the beneficiaries in instalments with 6% interest. Loans worth Rs. 66,92,395

at 4% interest were disbursed to 1762 persons so far for the purchase of agricultural land. The Corporation has so far given industrial loans amounting to Rs. 61,49,450 to 1719 persons for starting new businesses and for expansion of the existing business. Government have reserved 10% of the industrial units in the Mini Industrial estates for scheduled castes and scheduled tribes. In order to enable them to avail of the facility, the Corporation is giving loan for margin money for 10% of the project cost to be met by the prospective entrepreneurs on personal security. So far a sum of Rs. 1.86 lakhs have been given to 15 persons. The Corporation has issued a loan of Rs. 50,000 to the Harijan Welfare Agricultural Credit Co-operative Society, Chelakkara in 1977-78 and Rs. 20,000 in 1978-79 for manufacturing bamboo baskets. Besides this a loan of Rs. 5,000 was paid to Bamboo Handicraft Society, Nadathara, Trichur during 1978-79. The Corporation has also sanctioned a loan of Rs. 25,000 to the Nedumpoyil Girijan Service Co-operative Society, Cannanore District during the year under report for establishing a provision store for the supply of consumer articles to Girijan Hostels.

Welfare of Scheduled Tribes.

9.83 According to the recent Socio Economic Survey conducted by the Bureau of Economics and Statistics the tribal population in Kerala is just above two lakhs. Most of the tribal people are engaged in agricultural activities. The Socio-Economic Survey reveals that 92.39 per cent of the tribal families earn their major income either from cultivation or as agricultural labour. Similarly 71.73 per cent of the tribal working force is engaged as agricultural labourers. Collection of minor forest produce is also one of the important occupations of the tribal people. In order to save the tribals from the exploitation of contractors and middlemen Government have entrusted the collection and marketing of minor forest produce to the Girijan Service Co-operative Societies. Government have vested this right to 29 Girijan Service Co-operative Societies. The marketing of the minor forest produce collected by these societies is undertaken by the Kerala Pharmaceutical Corporation, Trichur. This Corporation has also launched a programme for giving training to tribals for the identification, collection and preservation of medicinal plants and other forest produces.

9.84 The annual sub-plan for the year 1979-80 was finalised during the year. The flow of funds from various sources to sub-plan areas during 1979-80 is shown below:-

| | |
|--------------------------------|------------------|
| I. State Plan | Rs. 158.75 lakhs |
| II. Special Central Assistance | Rs. 35.00 ,, |

| | |
|---|------------------|
| III. Assistance from Central Ministries | Rs. 136.86 lakhs |
| IV. Institutional Finance | Rs. 118.00 ,, |
| Total | Rs. 448.61 lakhs |

The expenditure incurred under special Central assistance for sub-plan schemes is shown in Table 9.12

TABLE 9.12

Special Central Assistance for Sub Plan Schemes

| Year | Amount allotted (Rs. lakhs) | Amount spent (Rs. lakhs) |
|---------|-----------------------------|--------------------------|
| (1) | (2) | (3) |
| 1974-75 | 2.50 | 1.45 |
| 1975-76 | 15.00 | 15.00 |
| 1976-77 | 26.00 | 24.61 |
| 1977-78 | 25.00 | 21.30 |
| 1978-79 | 26.00 | 31.89 |

9.85 Specific allocations were made in the Budgets of the various Departments for the implementation of the sub-plan schemes. Table 9.13 gives the sector-wise expenditure incurred on the sub-plan programmes for the last five years by the different Departments.

TABLE 9.13

Expenditure on Sub Plan Programmes

(Amount Rs. lakhs)

| Sl.No. | Department | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 |
|--------|-----------------------|---------|---------|---------|---------|---------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. | Agriculture | .. | .. | 1.05 | 5.00 | 5.00 |
| 2. | Co-operation | 0.77 | 1.19 | 2.17 | 0.01 | 8.00 |
| 3. | Forest | .. | .. | 0.23 | 3.70 | 5.50 |
| 4. | P.W.D. Roads | .. | .. | 10.68 | 10.00 | 10.00 |
| 5. | Animal Husbandry | 1.50 | 1.50 | 1.50 | 3.75 | 4.00 |
| 6. | P.H.E.D. | 5.95 | 2.51 | 3.11 | .. | 4.00 |
| 7. | Soil Conservation | 1.58 | 2.19 | 6.20 | .. | 8.00 |
| 8. | Employment & Training | .. | .. | 0.25 | .. | .. |
| 9. | Tribal Welfare | 2.43 | 7.06 | 9.57 | 20.00 | 33.20 |
| | Total | 12.23 | 14.45 | 34.76 | 42.46 | 77.70 |

9.86 The State Government have very recently reorganised the Tribal Research & Training Centre, Calicut into a separate Department called "Kerala Institute for Research, Training and Development Studies of Scheduled Castes and Scheduled Tribes" under the administrative control of the Development Department. Now the activities of the Institute has been extended to the members of Scheduled Castes also.

This Department is engaged in the conduct of studies relating to tribal and harijan life, social and economic conditions of tribal people, economic consequences of migration, land tenure, literacy etc. The training wing of this Department has programmes to give training to the officers working in tribal areas.

9.87 During the year 1978-79 an amount of Rs. 29.60 lakhs was spent for the payment of lump sum grant and stipend to scheduled tribe students studying in L.P., U.P. and High School Classes for the purchase of books, dress and other schools requisites. Free boarding and lodging facilities were provided to the boarders in the tribal hostels and the expenditure for this during the year 1978-79 is Rs. 4,69,742. Stipends worth Rs. 30,098 were given to tribal persons for getting training in forest operations and undergoing training in the Kerala State Cashew Development Corporation and in the Travancore Plywood Industries Ltd. Financial assistance at the rate of Rs. 800 was given to 50 scheduled tribe families for the purchase of agricultural implemets, seeds, seedlings, livestock etc. During the year under review five new isolated tribal pockets were selected at (i) Puravimala Thenmala in Neyyattinkara Taluk, (ii) Anamooli in Mannarghat, (iii) Manyalathamchalla in Palghat, (iv) Vazhchal in Trichur and (v) Karijiramkal in Taliparamaba for providing assistance for the construction of houses, purchase of agricultural implemets, livestock etc. An amount of Rs. 10.58 lakhs was spent during 1978-79 for the continuance of the Ayurvedic and Allopathic dispensaries, midwifery centres and mobile medical units. Four hundred and thirty-four houses and 12 wells were constructed during the year 1978-79. 100 Balawadis were established in tribal hamlets and settlements. Tribal women have been appointed as teachers and ayahs in these Balawadis. Feeding centres were also opened along with these Balawadis. The Education Department has opened 21 L.P. Schools in the areas of tribal concentrations. The expenditure during 1977-78 and 1978-79 for the Tribal development programmes is given in Table 9.14.

TABLE 9.14

Expenditure on Tribal Development Programmes

| Items | (Rs. lakhs) | |
|--------------------------------|-------------|--------------------------|
| | 1977-78 | 1978-79 (provisional) |
| (1) | (2) | (3) |
| 1. Plan schemes | 23.15 | 34.30 |
| 2. Non Plan schemes | 63.19 | 82.86 |
| 3. Centrally sponsored schemes | 5.71 | 10.18 |
| 4. Special Central Assistance | 21.30 | 31.89 |
| Total | 113.35 | 159.23 |

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Social Welfare

9.88 The concept of social welfare envisages supplementary and supportive services and programmes for the benefit of the weaker sections of the society especially women and children, the destitutes and deserted, widows and orphans, the physically handicapped and mentally deficient, and the aged and infirm. During the last three decades social welfare services in the State have contributed substantially to the development and rehabilitation of these vulnerable groups. With the formation of the separate Department of Social Welfare in 1975-76, a majority of the social welfare programmes for these vulnerable groups have been brought under its control. Still some of the social welfare programmes are implemented by other Departments resulting in functional overlapping and duplication of programmes. The other agencies concerned with social welfare programmes are the Development Department, the Revenue Department, the Jails Department, Directorate of Public Instruction, the Harijan Welfare Department and the Kerala State Social Welfare Advisory Board.

9.89 The various programmes of social welfare fall broadly under seven heads viz. programmes for women, programmes for children, composite programmes for women and children, schemes for mal-adjusted groups, programmes for physically handicapped persons, programmes for destitutes, aged and infirm, and social legislation.

A. Child Welfare

9.90 For their healthy physical and mental development children are to be provided with a congenial wholesome social environment. With this end in view various child welfare programmes such as the Special Nutrition Programme, World Food Programme, Applied Nutrition Programme, Health-based Nutrition Programme, school mid-day meals programme, One-meal-a-day programme, Integrated Child Development Service, Day care Centres, Balawadis, Creches etc. have been introduced in the State for providing them with health care, supplementary nutrition, non-formal education etc. There has been a marked increase in the number of children provided with supplementary nutrition during 1979. The number of children benefited increased from 29.8 lakhs in 1978 to 35.6 lakhs in 1979. The number of children protected through prophylaxis against nutritional anaemia in 1978-79 was 4.7 lakhs and that against blindness due to deficiency of vitamin A 11.6 lakhs. The achievements in these respects during 1979-80 are expected to cross the previous year's level.

9.91 Children of working class women like fisherfolk, coir workers, agricultural labourers etc.

are the most neglected lot. When the mother goes out for work young children are left either at home or near the work spot unattended to and uncared for. With a view to provide some relief to such children, Government have started day care centres. Twenty such day care centres for 1000 children are maintained by the Social Welfare Department in the coastal areas of the State. In these centres the children are given supplementary food and non-formal education. Periodical medical check-ups are also carried out. Pre-school or Nursery education, though very important, is now managed by voluntary organisations. There are a few institutions maintained by major organisations for the benefit of well-to-do sections and that too concentrated in urban centres. But the majority of nursery schools, balawadis etc. are run by organisations like Mahilasamajams under poor financial conditions. Most of them have no teaching aids, play materials and buildings of their own. Financial assistance for such organisations are provided by Government. The Social Welfare Department has given financial assistance by way of grant-in-aid to 347 nurseries for purchase of teaching aids, play materials, etc. Further the Development Department under the composite programme for women and pre-school children is providing financial assistance to Balawadis run by Mahilasamajams. The number of Balawadis run by Mahilasamajams which stood at 1201 in 1978 has increased to 1601 in 1979.

9.92 The Integrated Child Development Services started during the Fifth Plan has been extended to 4 more blocks during the year. The number of I.C.D.S. Projects has increased from 7 in 1978 to 11 in 1979. The I.C.D.S. provides a package of services to pre-school children and expectant and nursing mothers. The package includes besides supplementary nutrition, health check-up referral services, immunisation, non-formal education and nutrition and health education. The programmes are implemented with the maximum possible involvement of voluntary organisations. The number of pre-school children benefited by the I.C.D.S rose to one lakh in 1979 from 70,000 in 1978. For the care and protection and rehabilitation of healthy children of lepers, Government is maintaining a Children's Home at Mavelikara. In 1979, the Inter National Year of Child, a new nutrition programme (One-meal-a-day) has been launched by Government for the benefit of 5 lakhs pre-school children.

9.93 In view of the importance of child welfare, Government have constituted a State Board for Children with the Chief Minister as Chairman for guidance and coordination of the child welfare programmes of the different Departments of Government.

9.94 The State Social Welfare Advisory Board acts as the counter-part of the Central Social

Welfare Board at the State level. It serves as the media for exchange of information between the field and the Centre and co-ordinates the welfare activities of the State Government and the C.S.W.B. to avoid duplication. A major portion of the financial assistance from the C.S.W.B. is extended to voluntary institutions through the State Social Welfare Advisory Board. The financial assistance extended by the Advisory Board to voluntary organisations for child welfare includes:

- (i) Assistance to holiday camps for children of the age group 12-16 belonging to low income group families.
- (ii) Assistance for running creches
- (iii) Assistance for running Balawadis
- (iv) Assistance for supplementary nutrition to children in Creches and Balawadis.

B. Women's Welfare

9.95 For historical reasons, women in India are socially and educationally backward and economically dependent on men. The quality of the future generation depends very much on the quality of mothers who mould the character of the children. Therefore, social, economic, educational and cultural development of women, especially women belonging to the weaker sections of the society is an imperative necessity. Many of the child welfare programmes such as the Special Nutrition Programme, Applied Nutrition Programme, Composite Programme for Women and Pre-school Children, Health-based Nutrition Programme and I.C.D.S are composite programmes for women and children.

9.96 The applied nutrition programme includes economic programmes for women such as goat rearing, backyard poultry, kitchen gardening etc. for supplementing their family income.

9.97 Women's organisations like Mahilasamajams can play a vital role in the socio-economic betterment of women. Therefore, organising and supporting Mahilasamajams has been a matter of State policy right from 1951. At present there are more than 5000 such organisations under the patronage of the Development Department. These Mahilasamajams receive various kinds of support for their educational child care, economic and cultural activities from the State Government as well as from Central Social Welfare Board.

9.98 One of the major problems facing women is unemployment and resultant economic dependence. The State Government has been taking special care in its development programmes, for generating employment opportunities for women. The scheme for giving

financial assistance for women's organisation for undertaking employment programmes is one of these programmes. Women's organisations that have collected a minimum amount as working capital for starting any approved work, employing women, are given assistance in the form of grant for the development of the programme. The Social Welfare Department has given such grants to 50 organisations of women. For the benefit of the working women, Working Women's Hostels are run by the Social Welfare Department. The State Social Welfare Advisory Board, in addition to its General grant-in-aid programme is, also providing financial assistance to voluntary organisation for the following womens welfare programmes.

- (i) condensed course for education for adult women of the age group 18-30.
- (ii) Socio-economic programmes to generate employment and income to women belonging to low income group families.
- (iii) Training camps for rural women.
- (iv) Working Women's hostels, etc.

C. Welfare of Physically Handicapped.

9.99 Several programmes are being 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. Besides the schools run by the Directorate of Public Instruction for the education of the orthopaedically handicapped deaf, blind and mentally retarded children, the Social Welfare Department is running care and custodial homes for the benefit of the physically handicapped and mentally deficient children. The number of such institutions has increased from 6 in 1978 to 8 in 1979. The Central Social Welfare Board is also giving financial assistance to voluntary organisations serving the handicapped.

9.100 In order to give special attention to the physically handicapped applicants, a Special Employment Exchange for physically handicapped is now functioning at Trivandrum. To help the physically handicapped to settle in life, Government have sanctioned a self-employment programme for giving grants not exceeding Rs. 600 per needy handicapped for undertaking useful trade or vocation. Two hundred handicapped persons were given grants during the year under the scheme. Two Vocational Training Centres for handicapped are also maintained by the Social Welfare Department, one at Trivandrum and the other at Calicut with training facilities for 70 and 80 physically handicapped persons respectively. Stipends at the rate of Rs. 45 p.m. is also being paid to about 100 physically handicapped persons under going training

in private vocational training centres. In the current years' Annual Plan the following three new schemes have been included for the rehabilitation of the handicapped. The schemes are being implemented.

- (i) Scheme for giving financial assistance to voluntary organisations for handicapped for starting production centres/workshops in which handicapped persons will be employed.
- (ii) Scheme for giving assistance to deserving handicapped persons for the purchase of orthotic and prosthetic aids.
- (iii) Scheme for payment of fees to mentally retarded children from poor families admitted in private institutions.

9.101 The Department of Social Welfare, Government of India, awards scholarships to the blind, deaf and orthopaedically handicapped students for general education and for technical and professional training. However, national scholarship is given to handicapped persons undergoing education in standard IX onwards only. Therefore, the State Government has introduced a scheme for the grant of pre-matric scholarships to the handicapped children studying in standards I to VIII. The national award to the most efficient physically handicapped employees and outstanding employers of the physically handicapped persons is a Central Programme aimed at promoting employment opportunities to the handicapped persons.

9.102 In order to promote employment opportunities to the handicapped in Public service, Government has introduced grace marks for handicapped applicants appearing for Public Service Commission examinations. The formation of the Kerala State Corporation for the welfare of the handicapped was a major step taken during the year for the overall welfare of the handicapped.

D. Welfare of Maladjusted Groups

9.103 Social Defence Programmes are organised mainly within the frame work of specific legislation and allied measures. These measures include preventive, correctional and rehabilitative services in various areas of social defence such as welfare of prisoners, delinquency control, probation, beggary control and social and moral hygiene.

9.104 Five Government Children's Home and special schools, One Borstal School, 6 After Care Homes and 3 Rescue Homes functioned during the year for the benefit of the maladjusted groups. Under the scheme for the welfare of prisoners four qualified welfare officers are posted in the Central Prison Trivandrum, Open Prison Nettukaltheri, District Jail Calicut, and Central Prison Cannanore These Welfare

Officers look after the individual problems of prisoners and assist in solving them in liaison with their families.

9.105 Juvenile delinquency is a State subject. The Children's Act, 1972 and 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 prevention and treatment of Juvenile delinquency. The five Government Children's Home and Special Schools meant for the detention, education and training of juvenile delinquents continued during the year. The number of industrial training units in these institutions increased from 5 in 1978-79 to 7 in 1979-80. At present there is only one Borstal School (at Cannanore) in the State for adolescent offenders convicted under the Bortsal School Act. The girls convicted under the Borstal School Act are detained at present in the female blocks of the Central Prisons. Therefore, Government have sanctioned in 1977, a new Borstal School, exclusively for girls, attached to the Government Children's Home and Special School, Calicut. Necessary buildings are under construction and the institution is expected to start functioning shortly. Government have also decided to start a new Borstal School for boys at Kanayannur and 2.5 hectares of land has already been acquired for the purpose.

9.106 The Probation of Offenders Act 1958 contains a mandatory provision for calling upon the courts to consider Social Investigation Reports from the Probation officers in respect of youthful offenders under 21 years of age. The probation service of the State is under the Social Welfare Department. The probation officers are in charge of the work of Probation and after care under the provisions of the probation of Offenders Act, 1958 (central), Kerala Borstal School Act, the Children's Act, Kerala Prison Rules and the Suppression of Immoral Traffic in Women and Girls' Act.

E. Protection and Care of Orphans, Destitutes and the aged and Infirm.

9.107 Kerala ranks first among the States in India in respect of care and protection of the orphans, destitutes, the aged and infirm. Orphanages in Kerala are mainly run by voluntary organisations. There were 512 such orphanages with 33,100 orphans in 1978. This has increased to 574 with 36000 orphans in 1979. The number of orphanages that received grants from Government has increased from 219 in 1978 to 227 in 1979. Also the number of orphans receiving grants increased from 21900 in 1978 to 22,300 in 1979. Each orphan was given a grant of Rs. 35 per mensem during 1979. Thirty eight homes for the aged and infirm with 3800 inmates and 5 Foundling homes with 200

inmates functioned in the private sections during the year. The 11 Abalamandirs, and the 2 Shelter Homes for Waifs and Strays under the Social Welfare Department and the 3 Beggar Homes under voluntary organisations functioned during the year.

9.108 The Destitute/Widows /Disabled Pension Scheme and the scheme for financial assistance to widows for the marriage of their daughters continued during the year under the administrative control of the Revenue Department. Table 9.15 presents the selected achievements under social welfare.

TABLE 9.15
Selected activities and achievements of the Social Welfare Department

| Institution | 1978-79 | | 1979-80 | |
|---|--------------------|----------------------|--------------------|----------------------|
| | No. of Institution | No. of beneficiaries | No. of Institution | No. of beneficiaries |
| (1) | (2) | (3) | (4) | (5) |
| <i>1. Departmental Institutions.</i> | | | | |
| 1. Abalamandir | 11 | 255 | 11 | 275 |
| 2. After Care Home | 6 | 460 | 6 | 530 |
| 3. Rescue Home | 3 | 300 | 3 | 300 |
| 4. Shelter for Waifs and Strays | 2 | 200 | 2 | 200 |
| 5. Home for Physically Handicapped | 3 | 300 | 5 | 500 |
| 6. Home for Mentally Deficient Children | 2 | 125 | 2 | 125 |
| 7. Children's Home | 1 | 50 | 1 | 50 |
| 8. Custodial Care Home | 1 | 15 | 1 | 15 |
| 9. Working Women's Hostel | 5 | 125 | 5 | 125 |
| 10. Working Men's Hostel | 2 | 125 | 2 | 125 |
| 11. I. C. D. S. Projects | 7 | 70,000 | 11 | 100,000 |
| 12. Day Care Centres | 20 | 1,000 | 20 | 1,000 |
| <i>Voluntary Institutions.</i> | | | | |
| 13. Orphanages total | 512 | 33100 | 574 | 36,000 |
| (a) Orphanages receiving grants | 219 | 21,900 | 227 | 22,300 |
| (b) Orphanages not receiving grants | 293 | 11,200 | 347 | 13,700 |
| 14. Home for aged and infirms | 38 | 3,800 | N.A. | N.A. |
| 15. Foundling Homes | 5 | 200 | N.A. | N.A. |
| 16. Beggar Homes | 3 | 150 | N.A. | N.A. |

Note: 1. The achievement in 1979-80 includes that under the scheme which are continued or maintained.
2. The details include achievement under Non-Plan also

Source: Social Welfare Department, Kerala.

Nutrition Programmes.

9.109 Malnutrition is the most important health problem in the State. The per capita per day intake of calorie in the State is only 2052 as against the recommend National Minimum Nutrition Standard of 2400. Over 61 per cent of the population is

the State is classified as living below the poverty line on the basis of their calorie intake. Further, empirical studies carried out by the ICMR reveal that 72 per cent of the pre-school children in the State are malnourished. Malnutrition in children leads to high mortality and morbidity and poses a major public health problem to be tackled with a sense of urgency. A welfare State can illafford this grave health hazard to the vulnerable segments of the society. In order to give some relief to this problem of malnutrition, various nutrition programmes have been introduced in the State as plan and non-plan schemes. The following are nutrition programmes in operation in the State.

- (i) Special Nutrition Programme for pre-school children and pregnant and lactating women.
- (ii) Health-based Nutrition Programme for pre-school children and pregnant and lactating women.
- (iii) Applied Nutrition Programme for pre-school children and pregnant and lactating women.
- (iv) One-meal-a-day Programme for pre-school children.
- (v) World Food Programme for pre-school children.
- (vi) School Mid-day-Meals Programme.

9.110 Supplementary feeding and health inputs are common to all the above nutrition programmes. Pre-school children, school children, and pregnant and lactating women who need nutrition intervention by way of supplementary nutrition are given nutritious food for 300 days in an year in selected centres under the above programmes. During 1978-79 about 30 lakhs children and pregnant and lactating women were given supplementary food under the various nutrition programmes. In 1979-80, the International year of the child, the number of beneficiaries has increased to about 36 lakhs. This phenomenal increase in the number of beneficiaries during the current year was brought out by the introduction of the One meal-a-day programme for pre-school children. Table 9.16 gives the number of children and pregnant and lactating women provided with supplementary food under the various nutrition programmes.

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TABLE 9.16

Beneficiaries of the Supplementary Nutrition Programmes

| Nutrition Programme | No. of Beneficiaries | |
|---------------------------------------|----------------------|--------------------|
| | 1978-79 (lakhs) | 1979-80 (lakhs) |
| (1) | (2) | (3) |
| (i) Special Nutrition Programme | 2.00 | 2.30 |
| (ii) Health-based Nutrition Programme | 1.30 | 1.30* |
| (iii) Applied Nutrition Programme | 6.00 | 6.00 |
| (iv) One-Meal-a-day Programme | .. | 5.00 |
| (v) World Food Programme | 2.25** | 3.00** |
| (vi) School Mid-day Meal Programme | 18.27† | 18.04† |
| Total | 29.82 | 35.64 |

*Relates to the period upto 11/79 only.

**Relates to calendar year.

†Effective number of beneficiaries.

9.111 Health check up and prophylaxis against nutritional anaemia and blindness due to vitamin A deficiency are the important health inputs of the nutrition programmes. In 1978-79 over 8 lakhs mothers and children were given prophylaxis against nutritional anaemia. The number of children protected against blindness due to vitamin A deficiency was about 12 lakhs. The achievements under these programmes in 1979-80 are expected to cross the 1978-79 level. Table 9.17 below gives the number of beneficiaries under the prophylaxis programmes.

TABLE 9.17

Prophylaxis against Nutritional Anaemia and Blindness

| Details | No. of Beneficiaries (lakhs) | |
|--|------------------------------|-------------------------|
| | 1978-79 | 1979-80 (upto 11/79) |
| (1) | (2) | (3) |
| (i) Prophylaxis against nutritional anaemia | 8.14 | 5.90 |
| (a) Mothers | 3.43 | 2.70 |
| (b) Children | 4.71 | 3.20 |
| (ii) Prophylaxis against blindness in children due to Vitamin A deficiency | 11.63 | 9.60 |
| Total | 19.77 | 15.50 |

Source: Assistant Director (Nutrition), Directorate of Health Services, Kerala.

APPENDIX

STATISTICAL TABLES

LIST OF APPENDIX TABLES

| APPENDIX No. | TITLE | PAGE No. |
|----------------------------------|--|----------|
| <i>Income and Employment</i> | | |
| 2.1 | Growth of Net Domestic Product (Sector-wise—Kerala and India) | 119 |
| 2.2 | Net State Domestic Product at Factor Cost by Industry of Origin—Kerala (At Current Prices) | 119 |
| 2.3 | Net State Domestic Product at Factor Cost by Industry of Origin—Kerala (At 1970-71 Prices) | 120 |
| 2.4 | Net Domestic Product at Factor Cost by Industry of Origin—India (At Current Prices) | 120 |
| 2.5 | Net Domestic Product at Factor Cost by Industry of Origin—India (At 1970-71 Prices) | 121 |
| 2.6 | Ranking of States in India Based on Per capita Income at Current Prices | 121 |
| 2.7 | Estimates of District Income of Kerala at Current Prices | 122 |
| 2.8 | Estimates of District Income of Kerala at Constant (1970-71) Prices | 123 |
| 2.9 | Sectoral Contribution of District Income (Per cent) | 124 |
| 2.10 | Estimates of District-wise Per capita Income of Kerala at Current Prices | 125 |
| 2.11 | Estimates of District-wise Per capita Income of Kerala at Constant (1970-71) Prices | 126 |
| 2.12 | Ranking of Districts in Kerala Based on Per capita Income at Current Prices | 127 |
| 2.13 | Ranking of Districts in Kerala Based on Per capita Income at Constant (1970-71) Prices | 127 |
| 2.14 | State's Net Domestic Product at Factor cost by Industry of Origin (At current Prices) | 128 |
| 2.15 | Estimates of Per Capita Income of States (At Current Prices) | 129 |
| 2.16 | Estimated Annual Live Birth Rates and Death Rates—State wise | 130 |
| <i>Prices and Cost of Living</i> | | |
| 3.1 | Increase in Wholesale Prices Index Vis-a-Vis Increase in Money Supply | 130 |
| 3.2 | Index Number of Wholesale Prices—All India—1979 (Base : 1970-71 = 100) | 130 |
| 3.3 | Consumer Price Index Numbers for Industrial Workers in India—1979 (Base: 1960 = 100) | 131 |
| 3.4 | Wholesale Price Index of Agricultural Commodities—Kerala (1979) (Base : 1952-53 = 100) | 131 |
| 3.5 | Wholesale Price Index of Agricultural Commodities—Kerala (1970-79) (Base : 1952-53 = 100) | 132 |
| 3.6 | State Average of Retail Prices of Essential Commodities—1979 (In Rupees) | 133 |
| 3.7 | Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial Workers, Kerala—Index Numbers for the Months of January to December—1979 (Base : 1970 = 100) | 135 |
| 3.8 | Availability of Food in the State | .. |
| <i>Agriculture</i> | | |
| 4.1 | Farm Commodity Prices (In Rupees)—Kerala | 135 |
| 4.2 | Land Use Pattern in Kerala During 1978-79 (Provisional Estimates) | 136 |
| 4.3 | Consumption of Fertilisers in Kerala | 136 |
| 4.4 | State-wise Area, Production and yield of Coffee | 137 |
| 4.5 | Species-wise Area, Production and Yield of Coffee in Kerala | 137 |
| 4.6 | Production, Import, Export and Consumption of Rubber in India | 137 |
| 4.7 | Disposal of Cases Relating to Tenancy and Kudikidappu | 137 |
| 4.8 | Distribution of Surplus Land | 137 |
| 4.9 | Implementation of KLR Act—District-wise Progress as on 31-11-1979 | 138 |
| 4.10 | Implementation of Ceiling Provisions—District-wise Progress as on 31-12-1979 | 138 |
| 4.11 | Livestock Population in Kerala | 139 |
| 4.12 | District-wise Distribution of Livestock and Poultry in Kerala. Population as per 1977 Livestock Census | 140 |
| 4.13 | Principal Species of Marine Fish Catches(Kerala) | 142 |
| 4.14 | Fishermen Co-operatives in Kerala | 142 |
| 4.15 | Beach Prices of Marine Fish in Kerala (1978-79) | 143 |
| 4.16 | Division-wise Area of Forest in Kerala (1978) | 143 |
| 4.17 | Species-wise Area under Forest Plantations | 143 |
| 4.18 | Sale Proceeds of Timber and other Produce | 143 |
| <i>Irrigation and Power</i> | | |
| 5.1 | Growth of Kerala Power System at a Glance | 144 |
| 5.2 | Financial Position of Kerala State Electricity Board | 145 |
| 5.3 | Consumption of Power and Revenue Collected (Internal) (1978-79) | 145 |
| 5.4 | Total Quantity of Power Sold and Receipts by the Sale of Electricity | 146 |
| <i>Industry</i> | | |
| 6.1 | District-wise Distribution of Working Factories and Employment for the year ending 31-12-1978 | 147 |
| 6.2 | Government Owned Companies—Main Features | 149 |
| 6.3 | Government Owned Companies—Production and Capacity Utilisation | 149 |
| 6.4 | Government Majority Companies—Main Features | 150 |
| 6.5 | Government Majority Companies—Production and Capacity Utilisation | 151 |
| 6.6 | Government of India Companies—Main Features | 152 |

| APPENDIX No. | TITLE | PAGE No. |
|-------------------------------------|--|----------|
| 6.7 | Government of India Companies—Production and Capacity Utilisation | 153 |
| 6.8 | Progress of the Kerala Financial Corporation at a Glance | 154 |
| 6.9 | Industry-wise Classification of Loans Sanctioned and Disbursed by the Kerala Financial Corporation as on 1978-79 | 154 |
| 6.10 | District-wise Sanction and Disbursement of Loans and Advances by the Kerala Financial Corporation as on 31-3-1979 | 155 |
| 6.11 | Summary of Applications Received/Sanctioned/Disbursed etc., upto the year ending 31st March 1979 by the Kerala Financial Corporation | 155 |
| 6.12 | Khadi and Village Industries—Production, Sales, Employment and Wages during 1977-78 and 1978-79 | 155 |
| <i>Transport and Communications</i> | | |
| 7.1 | District-wise Length of Public Works Department Roads as on 1-4-1979 | 157 |
| 7.2 | Number of Motor Vehicles having valid Registration in Kerala as on 31-3-1979 | 158 |
| 7.3 | Number of Vehicles Newly Registered in the State during the year 1978-79 | 159 |
| 7.4 | Number of Road Accidents in which Motor Vehicles were Involved in Kerala (1977 and 1978) | 160 |
| 7.5 | Motor Vehicle Accidents in Kerala—By Primary Cause of Accidents (1978) | 161 |
| 7.6 | Kerala State Road Transport Corporation—Operational Statistics (1978-79) | 162 |
| 7.7 | Details of Goods Traffic Originating at Different Railway Stations in Kerala State during the year 1978-79 | 164 |
| 7.8 | Import and Export Tonnage of Cargo Handled and Revenue Collected at the Intermediate and Minor Ports of Kerala during 1978-79 | 164 |
| 7.9 | Number and Tonnage of Steamers and Sailing Vessels which called at the Intermediate and Minor Ports of Kerala during 1978-79 | 165 |
| 7.10 | Tonnage of Principal Commodities of Imports into Cochin Port during the year 1978-79 | 166 |
| 7.11 | Tonnage of Principal Commodities of Exports from Cochin Port during the year 1978-79 | 166 |
| 7.12 | Growth of Post Offices in Kerala | 166 |
| 7.13 | Area and Population Served by each Post Office in the various Districts of Kerala State | 167 |
| 7.14 | Statistics of Post Offices as on 1-4-1979 in Kerala State | 167 |
| 7.15 | Statistics relating to Telephone Exchanges—Kerala (April 1979) | 167 |
| <i>Export Trade</i> | | |
| 8.1 | Exports of Marine Products, Kerala & India | 168 |
| 8.2 | Item-wise share of Export of Marine Products in percentage terms | 168 |
| 8.3 | Item-wise Export of Marine Products | 169 |
| 8.4 | Cashew Importing Countries | 169 |
| 8.5 | Item-wise Export of Coir and Coir Products | 170 |
| 8.6 | Export of Coir and Coir Products from Kerala and India | 171 |
| 8.7 | Export of Coir and Coir Products from Kerala Ports | 171 |
| 8.8 | Export of Coffee from the Cochin Port and India | 171 |
| <i>Social Services</i> | | |
| 9.1 | Progress of Educational Institutions—High Schools | 171 |
| 9.2 | Progress of Educational Institutions—Upper Primary Schools | 172 |
| 9.3 | Progress of Educational Institutions—Lower Primary Schools | 172 |
| 9.4 | Standard-wise Strength of Students (1978-79) | 173 |
| 9.5 | Standard-wise Strength of Students (1979-80) | 174 |
| 9.6 | Progress of Enrolment in the Different Stages of School Education | 175 |
| 9.7 | Number of Students Appeared and Passed the S. S. L. C. Examination in 1978 and 1979 (New and Old Schemes Together) | 175 |
| 9.8 | Distribution of Teachers (1978-79) | 176 |
| 9.9 | Number of Arts and Science Colleges and Training Colleges—District-wise (1978-79) | 176 |
| 9.10 | Number of Colleges Affiliated to the Universities of Kerala 1978-79 | 176 |
| 9.11 | Enrolment by Stages in Arts and Science Colleges in Kerala (1978-79) | 177 |
| 9.12 | Number of Students and Teachers in Colleges Affiliated to the University of Kerala (1978-79) | 177 |
| 9.13 | Number of Post-Graduate and Research Students in the University Departments of Kerala (1978-79) | 177 |
| 9.14 | Number of Institutions and Students in the Professional Colleges of Kerala (1978-79) | 178 |
| 9.15 | Polytechnics in Kerala (1978-79) and (1979-80) | 179 |
| 9.16 | Number of Students and Teachers in Polytechnics in Kerala (1978-79) | 179 |
| 9.17 | Number of Industrial Training Institutes Enrolment of Students in Kerala (1979) | 179 |
| 9.18 | Progress of Expenditure on General School Education | 180 |
| 9.19 | Cost per Pupil in the Different Stages of School Education | 180 |
| 9.20 | Per Capita Government Expenditure on Education in Kerala | 181 |
| 9.21 | Medical Institutions and Beds in Kerala as on 31-3-1979 | 181 |
| 9.22 | District-wise Distribution of Institutions and Beds under Indian System of Medicine as on 31-3-1979 | 182 |
| 9.23 | District-wise Distribution of Institutions and Beds under Homoeopathic System of Medicine as on 31-3-1979 | 182 |
| 9.24 | Achievements under Family Welfare Programme for the year 1977-78 and 1978-79 | 183 |
| 9.25 | District-wise Progress of Works Under Urban Water Supply Scheme for the year 1978-79 | 183 |
| 9.26 | District-wise Progress of Works under Rural Water Supply Scheme for the year 1978-79 | 183 |
| 9.27 | Water Supply Scheme Taken up with Life Insurance Corporation Funds | 184 |
| 9.28 | District-wise Progress of Works under Drainage Scheme for 1978-79 | 184 |

APPENDIX 2.1

Growth of Net Domestic Product (Sector-wise)—Kerala and India

| Industry/Sector | (Rs. crores) | | | | | | | |
|---------------------------------------|--------------|--|---------|--|---------|--|---------|--|
| | Kerala | | | | India | | | |
| | 1976-77 | Rate of Growth Over Previous Year (Per cent) | 1977-78 | Rate of Growth Over Previous Year (Per cent) | 1976-77 | Rate of Growth Over Previous year (Per cent) | 1977-78 | Rate of Growth Over Previous year (Per cent) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| (a) At Current Prices | | | | | | | | |
| 1. Primary Sector | 1088 | 5.1 | 1094 | 0.5 | 29,006 | 5.6 | 32,845 | 13.2 |
| 2. Secondary Sector | 389 | 2.9 | 449 | 15.4 | 15,274 | 12.6 | 16,936 | 10.9 |
| 3. Transport, Communication and Trade | 386 | 13.5 | 428 | 10.9 | 12,178 | 7.6 | 13,515 | 11.0 |
| 4. Finance and Real Estate | 100 | 5.8 | 108 | 8.0 | 3,816 | 16.7 | 4,393 | 15.1 |
| 5. Community and Personal Services | 308 | 8.6 | 326 | 5.8 | 6,846 | 9.4 | 7,369 | 7.6 |
| 6. Tertiary Sector (3+4+5) | 794 | 10.5 | 862 | 8.6 | 22,840 | 9.6 | 25,277 | 10.7 |
| 7. Total Net Domestic product | 2271 | 6.5 | 2405 | 5.9 | 67,120 | 8.5 | 75,058 | 11.8 |
| 8. Per capita Income (Rs.) | 948 | 4.5 | 987 | 4.1 | 1,086 | 6.5 | 1,189 | 9.5 |
| (b) At 1970-71 prices | | | | | | | | |
| 1. Primary Sector | 643 | (—)5.2 | 628 | (—) 2.3 | 18,182 | (—)3.7 | 20,153 | 10.8 |
| 2. Secondary Sector | 228 | 0.5 | 286 | 25.4 | 8,878 | 8.9 | 9,425 | 6.2 |
| 3. Transport, Communication and Trade | 189 | (—) 0.5 | 192 | 1.6 | 7,019 | 4.0 | 7,478 | 6.5 |
| 4. Finance and Real Estate | 58 | 2.3 | 62 | 6.9 | 2,231 | 10.4 | 2,396 | 7.4 |
| 5. Community and Personal Services | 180 | 4.1 | 189 | 5.0 | 4,309 | 4.3 | 4,511 | 4.7 |
| 6. Tertiary sector (3+4+5) | 427 | 1.8 | 443 | 3.7 | 13,559 | 5.1 | 14,385 | 6.1 |
| 7. Total Net Domestic Product | 1298 | (—)2.0 | 1358 | 4.6 | 40,619 | 1.7 | 43,963 | 8.2 |
| 8. Per capita Income (Rs.) | 542 | (—)3.9 | 557 | 2.8 | 658 | (—) 0.3 | 697 | 5.9 |

APPENDIX 2.2

Net State Domestic Product at Factor cost by Industry of Origin Kerala (at Current Prices)

| Industry/Sector | (Rs. lakhs) | | | | | | | |
|-------------------------------------|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 1970-71 | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 1. Primary Sector | 64,737 | 60,298 | 71,903 | 96,875 | 1,06,818 | 1,03,536 | 1,08,806 | 1,09,431 |
| 2. Secondary Sector | 19,457 | 22,853 | 25,399 | 28,517 | 35,261 | 37,800 | 38,884 | 44,925 |
| 3. Transport, Communication & Trade | 15,636 | 17,449 | 20,126 | 23,049 | 28,977 | 34,023 | 38,610 | 42,853 |
| 4. Finance & Real Estate | 4,167 | 5,017 | 5,369 | 6,644 | 7,724 | 9,470 | 10,024 | 10,798 |
| 5. Community & Personal services | 14,339 | 15,430 | 16,929 | 19,536 | 24,164 | 28,302 | 30,741 | 32,569 |
| 6. Tertiary sector (3+4+5) | 34,142 | 37,896 | 42,424 | 49,229 | 60,865 | 71,795 | 79,375 | 86,220 |
| 7. Total Net state domestic product | 1,18,336 | 1,21,047 | 1,39,726 | 1,74,621 | 2,02,944 | 2,13,131 | 2,27,065 | 2,40,576 |
| Index (1970-71=100) | 100.0 | 102.3 | 118.1 | 147.6 | 171.5 | 180.1 | 191.9 | 203.3 |
| 8. Per capita income (Rs.) | 564 | 563 | 636 | 777 | 883 | 907 | 948 | 987 |
| Index (1970-71=100) | 100.0 | 99.8 | 112.8 | 137.8 | 156.6 | 160.8 | 168.1 | 175.0 |

APPENDIX 2.3

Net State Domestic Product at Factor Cost by Industry of origin—Kerala (at 1970-71 Prices)

| Industry/Sector | (Rs. lakhs) | | | | | | | | |
|--------------------------------------|-------------|----------|----------|----------|----------|----------|----------|---------|---------|
| | 1970-71 | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1. Primary Sector | 64,737 | 66,959 | 67,323 | 66,339 | 68,274 | 67,856 | 64,346 | 62,88 | 62,88 |
| 2. Secondary sector | 19,457 | 21,511 | 22,349 | 22,860 | 22,410 | 22,684 | 22,796 | 22,60 | 22,60 |
| 3. Transport, Communication & Trade | 15,636 | 16,455 | 16,918 | 16,968 | 18,275 | 19,006 | 18,908 | 19,18 | 19,18 |
| 4. Finance & Real Estate | 4,167 | 4,826 | 4,978 | 5,228 | 5,217 | 5,689 | 5,821 | 6,26 | 6,26 |
| 5. Community & Personal Services | 14,339 | 14,682 | 15,611 | 16,603 | 16,627 | 17,279 | 17,997 | 18,80 | 18,80 |
| 6. Tertiary Sector (3+4+5) | 34,142 | 35,963 | 37,507 | 38,799 | 40,119 | 41,974 | 42,726 | 44,81 | 44,81 |
| 7. Total: Net state domestic product | 1,18,336 | 1,24,433 | 1,27,179 | 1,27,998 | 1,30,803 | 1,32,514 | 1,29,868 | 1,35,75 | 1,35,75 |
| Index (1970-71=100) | 100.0 | 105.2 | 107.5 | 108.2 | 110.5 | 112.0 | 109.7 | 114.1 | 114.1 |
| 8. Per capita Income—(Rs.) | 564 | 579 | 579 | 569 | 569 | 564 | 542 | 53 | 53 |
| Index (1970-71=100) | 100.0 | 102.7 | 102.7 | 100.9 | 100.9 | 100.0 | 96.1 | 88.1 | 88.1 |

APPENDIX 2.4

Net Domestic Product at Factor Cost by Industry of origin—India (at current prices)

| Industry/Sector | (Rs. crores) | | | | | | | | | |
|---|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 1970-71 | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 | 1979-80 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 1. Primary Sector | 17,320 | 17,961 | 19,742 | 26,595 | 28,925 | 27,460 | 29,006 | 32,845 | 33,864 | 33,864 |
| 2. Secondary Sector | 7,876 | 7,563 | 8,307 | 9,569 | 12,265 | 13,564 | 15,274 | 16,936 | 18,971 | 18,971 |
| 3. Transport, Communication & Trade | 5,488 | 5,991 | 6,622 | 7,997 | 10,097 | 11,314 | 12,178 | 13,515 | 14,801 | 14,801 |
| 4. Finance & Real Estate | 1,683 | 1,881 | 2,096 | 2,395 | 2,747 | 3,269 | 3,816 | 4,393 | 5,001 | 5,001 |
| 5. Community & Personal Services | 3,285 | 3,640 | 3,957 | 4,434 | 5,572 | 6,257 | 6,846 | 7,369 | 8,111 | 8,111 |
| 6. Tertiary sector (3+4+5) | 10,456 | 11,512 | 12,675 | 14,826 | 18,416 | 20,840 | 22,840 | 25,277 | 27,314 | 27,314 |
| 7. Total: Net domestic product at Factor cost | 34,652 | 37,036 | 40,724 | 50,990 | 59,606 | 61,864 | 67,120 | 75,058 | 80,356 | 80,356 |
| 8. Net National Product at Factor Cost | 34,368 | 36,745 | 40,422 | 50,665 | 59,315 | 61,609 | 66,885 | 74,794 | 80,000 | 80,000 |
| Index (1970-71=100) | 100.0 | 106.9 | 117.6 | 147.4 | 172.6 | 179.3 | 194.6 | 217.6 | 233.4 | 233.4 |
| 9. Per Capita Income (Rs.) | 635 | 663 | 714 | 875 | 1004 | 1020 | 1086 | 1189 | 1230 | 1230 |
| Index (1970-71=100) | 100.0 | 104.4 | 112.4 | 137.7 | 158.0 | 160.6 | 171.0 | 187.2 | 196.9 | 196.9 |

APPENDIX 2.5

Net Domestic Product at Factor Cost by Industry of Origin—India (at 1970-71 Prices)

(Rs. crores)

| Industry/Sector | 1970-71 | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1. Primary Sector | 17,320 | 17,220 | 16,148 | 17,346 | 16,935 | 18,639 | 18,132 | 20,153 | 20,497 |
| 2. Secondary Sector | 6,876 | 7,053 | 7,287 | 7,432 | 7,682 | 8,153 | 8,878 | 9,425 | 10,032 |
| 3. Transport, Communication and Trade | 5,488 | 5,644 | 5,750 | 5,963 | 6,173 | 6,746 | 7,019 | 7,478 | 7,946 |
| 4. Finance and Real Estate | 1,683 | 1,782 | 1,856 | 1,892 | 1,855 | 2,021 | 2,231 | 2,396 | 2,623 |
| 5. Community and Personal services | 3,285 | 3,479 | 3,604 | 3,737 | 3,931 | 4,131 | 4,309 | 4,511 | 4,736 |
| 6. Tertiary Sector (3+4+5) | 10,456 | 10,905 | 11,210 | 11,592 | 11,939 | 12,893 | 13,559 | 14,385 | 15,210 |
| 7. Total: Net Domestic Product at Factor Cost | 34,652 | 35,178 | 34,645 | 36,370 | 36,626 | 39,940 | 40,619 | 43,963 | 45,739 |
| 8. Net National Product at Factor Cost | 34,368 | 34,865 | 34,334 | 36,134 | 36,504 | 39,849 | 40,534 | 43,857 | 45,637 |
| Index (1970-71=100) | 100.0 | 101.4 | 99.9 | 105.1 | 106.2 | 115.9 | 117.9 | 127.6 | 132.8 |
| 9. Per capita Income (Rs.) | 635 | 629 | 607 | 624 | 618 | 660 | 658 | 697 | 712 |
| Index (1970-71=100) | 100.0 | 99.1 | 95.5 | 98.2 | 92.7 | 103.9 | 103.6 | 109.8 | 112.1 |

APPENDIX 2.6

Ranking of States in India Based on Per capita Income at Current Prices

(Rs.)

| States | Average Per Capita Income for 3 years 1969-70 to 1971-72 | Percentage to All-India Average Per capita income | Rank | Average Per Capita Income for 3 years 1974-75 to 1976-77 | Percentage to All India Average Per capita Income | Rank |
|---------------------|--|---|------|--|---|------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. Andhra Pradesh | 576.7 | 91.25 | 9 | 933.3 | 90.00 | 8 |
| 2. Assam | 526.0 | 83.22 | 13 | 807.0 | 77.84 | 13 |
| 3. Bihar | 406.7 | 64.35 | 18 | 682.7 | 65.85 | 18 |
| 4. Gujarat | 790.3 | 125.04 | 4 | 1193.0 | 115.07 | 4 |
| 5. Haryana | 861.3 | 136.28 | 2 | 1321.0 | 127.42 | 3 |
| 6. Himachal Pradesh | 650.3 | 102.89 | 7 | 1049.7 | 101.25 | 6 |
| 7. Jammu & Kashmir | 531.0 | 84.01 | 12 | 872.0 | 84.11 | 11 |
| 8. Karnataka | 666.3 | 105.42 | 6 | 1027.0 | 99.06 | 7 |
| 9. Kerala | 556.3 | 88.02 | 11 | 912.7 | 88.03 | 9 |
| 10. Madhya Pradesh | 498.7 | 78.90 | 14 | 777.7 | 75.01 | 15 |
| 11. Maharashtra | 802.7 | 127.00 | 3 | 1407.7 | 135.78 | 2 |
| 12. Manipur | 427.0 | 67.56 | 17 | 785.3 | 75.77 | 14 |
| 13. Orissa | 493.3 | 78.05 | 15 | 724.3 | 69.86 | 17 |
| 14. Punjab | 1026.3 | 162.38 | 1 | 1644.7 | 158.64 | 1 |
| 15. Rajasthan | 561.3 | 88.81 | 10 | 859.0 | 82.85 | 12 |
| 16. Tamil Nadu | 599.3 | 94.82 | 8 | 904.3 | 87.22 | 10 |
| 17. Uttar Pradesh | 490.0 | 77.53 | 16 | 759.7 | 73.28 | 16 |
| 18. West Bengal | 745.3 | 117.92 | 5 | 1039.7 | 105.07 | 5 |
| All India | 632.0 | (100.00) | | 1036.7 | (100.00) | |

ANNEXURE 2.7

Net status of District Income of Kerala at Current Price

(Rs. lakhs)

| District | 1970-71 | % | 1971-72 | % | 1972-73 | % | 1973-74 | % | 1974-75 | % | 1975-76 | % | 1976-77 | % | 1977-78 | % |
|--------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
| Thiruvandram | 11862 | 10.0 | 12737 | 10.5 | 14397 | 10.3 | 18410 | 10.5 | 21408 | 10.5 | 22740 | 10.7 | 23274 | 10.2 | 23523 | 9.8 |
| Quilon | 14752 | 12.5 | 15149 | 12.5 | 18777 | 13.4 | 23211 | 13.3 | 27342 | 19.5 | 28391 | 13.3 | 26338 | 11.6 | 25983 | 10.8 |
| Alleppey | 11371 | 9.6 | 11132 | 9.2 | 13101 | 9.4 | 16183 | 9.3 | 18376 | 9.1 | 19229 | 9.0 | 19790 | 8.6 | 20714 | 8.6 |
| Kottayam | 9593 | 8.1 | 9829 | 8.1 | 11337 | 8.1 | 15313 | 8.8 | 17991 | 8.9 | 17952 | 8.4 | 18109 | 8.0 | 18249 | 7.6 |
| Idukki | 4694 | 4.0 | 4695 | 3.9 | 5266 | 3.8 | 6613 | 3.8 | 8647 | 4.3 | 8991 | 4.2 | 10159 | 4.5 | 9120 | 3.8 |
| Ernakulam | 13833 | 11.7 | 14886 | 12.3 | 16329 | 11.7 | 18855 | 10.8 | 23685 | 11.7 | 24680 | 11.7 | 28730 | 12.7 | 31828 | 13.2 |
| Trichur | 11145 | 9.4 | 11288 | 9.3 | 12782 | 9.1 | 15349 | 8.8 | 17725 | 8.7 | 18808 | 8.8 | 20578 | 9.1 | 22819 | 9.5 |
| Palghat | 8892 | 7.5 | 9179 | 7.6 | 10859 | 7.8 | 12749 | 7.3 | 14414 | 7.1 | 15840 | 7.4 | 15443 | 6.8 | 17535 | 7.3 |
| Malappuram | 8428 | 7.1 | 8910 | 7.4 | 10014 | 7.2 | 11794 | 6.8 | 13015 | 6.4 | 14036 | 6.6 | 16941 | 7.5 | 17640 | 7.9 |
| Kozhikode | 11742 | 9.9 | 11150 | 9.2 | 12947 | 9.3 | 18162 | 10.4 | 19462 | 9.6 | 20954 | 9.8 | 22286 | 9.8 | 25269 | 10.5 |
| Cannanore | 12084 | 10.2 | 12092 | 10.0 | 13917 | 9.9 | 17982 | 10.2 | 20879 | 10.2 | 21510 | 10.1 | 25423 | 11.1 | 27946 | 11.6 |
| State | 118336 | 100.0 | 121047 | 100.0 | 139726 | 100.0 | 174621 | 100.0 | 202944 | 100.0 | 213131 | 100.0 | 227065 | 100.0 | 240576 | 100.0 |

ANNEXURE 2.6

Estimates of District Income of Kerala at Constants (1970-71) Prices

(Rs. lakhs)

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
|------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | 1970-71 | % Share | 1971-72 | % Share | 1972-73 | % Share | 1973-74 | % Share | 1974-75 | % Share | 1975-76 | % Share | 1976-77 | % Share | 1977-78 | % Share |
| Trivandrum | 11862 | 10.0 | 13110 | 10.5 | 12818 | 10.1 | 13171 | 10.3 | 13615 | 10.4 | 13824 | 10.4 | 13564 | 10.5 | 13300 | 9.8 | |
| Quilon | 14752 | 12.5 | 15493 | 12.5 | 16881 | 13.3 | 16324 | 12.7 | 16923 | 12.9 | 16971 | 12.7 | 15180 | 11.7 | 15197 | 11.2 | |
| Alleppey | 11371 | 9.6 | 11519 | 9.3 | 11728 | 9.2 | 11682 | 9.1 | 12031 | 9.2 | 12221 | 9.2 | 11556 | 8.9 | 11800 | 8.7 | |
| Kottayam | 9533 | 8.1 | 10340 | 8.3 | 10480 | 8.3 | 11075 | 8.6 | 11123 | 8.5 | 11299 | 8.5 | 10646 | 8.2 | 10408 | 7.7 | |
| Idukki | 4694 | 4.0 | 4968 | 4.0 | 4890 | 3.5 | 5080 | 4.0 | 5382 | 4.1 | 5528 | 4.2 | 5108 | 3.9 | 4874 | 3.6 | |
| Ernakulam | 19833 | 11.7 | 15030 | 12.1 | 15107 | 11.9 | 14465 | 11.3 | 15510 | 11.9 | 15923 | 11.6 | 16408 | 12.6 | 19217 | 14.1 | |
| Trichur | 11145 | 9.4 | 11550 | 9.3 | 11753 | 9.4 | 11593 | 9.1 | 11905 | 9.1 | 12198 | 9.2 | 12013 | 9.3 | 12970 | 9.5 | |
| Palghat | 8892 | 7.5 | 9388 | 7.5 | 9753 | 7.7 | 9884 | 7.7 | 10156 | 7.8 | 10144 | 7.7 | 9881 | 7.2 | 10466 | 7.7 | |
| Malappuram | 8428 | 7.1 | 8992 | 7.2 | 9229 | 7.3 | 8768 | 6.9 | 8678 | 6.6 | 8867 | 6.7 | 9537 | 7.3 | 9593 | 7.1 | |
| Kozhikode | 11742 | 9.9 | 11870 | 9.5 | 12120 | 9.5 | 12883 | 10.1 | 12550 | 9.6 | 13292 | 10.0 | 12666 | 9.8 | 13321 | 9.8 | |
| Cannanore | 12084 | 10.2 | 12173 | 9.8 | 12420 | 9.8 | 13073 | 10.2 | 12930 | 9.9 | 12947 | 9.8 | 13809 | 10.6 | 14611 | 10.8 | |
| State | 118936 | 100.0 | 124493 | 100.0 | 127179 | 100.0 | 127998 | 100.0 | 130803 | 100.0 | 132514 | 100.0 | 129868 | 100.0 | 135757 | 100.0 | |

Sectoral Contribution of District Incomes (Per cent)

| District | 1970-71 (Current Prices) | | | | 1977-78 (1970-71 Prices) | | | | 1977-78 (at Current Prices) | | | |
|---------------|--------------------------|-----------|----------|-------|--------------------------|-----------|----------|-------|-----------------------------|-----------|----------|-------|
| | Primary | Secondary | Tertiary | Total | Primary | Secondary | Tertiary | Total | Primary | Secondary | Tertiary | Total |
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1. Trivandrum | 48.7 | 15.7 | 35.6 | 100.0 | 36.4 | 20.3 | 43.3 | 100.0 | 35.4 | 19.2 | 45.4 | 100.0 |
| 2. Quilon | 62.1 | 15.6 | 22.3 | 100.0 | 47.4 | 24.3 | 28.3 | 100.0 | 46.8 | 21.0 | 32.2 | 100.0 |
| 3. Alleppey | 56.0 | 13.9 | 30.1 | 100.0 | 44.6 | 18.1 | 37.3 | 100.0 | 41.5 | 17.3 | 41.2 | 100.0 |
| 4. Kottayam | 62.2 | 10.7 | 27.1 | 100.0 | 53.6 | 15.1 | 31.3 | 100.0 | 50.6 | 14.2 | 35.2 | 100.0 |
| 5. Idukki | 67.2 | 16.2 | 16.6 | 100.0 | 59.2 | 21.3 | 19.5 | 100.0 | 61.4 | 17.6 | 21.0 | 100.0 |
| 6. Ernakulam | 35.8 | 32.6 | 31.6 | 100.0 | 31.3 | 37.6 | 31.1 | 100.0 | 31.2 | 32.8 | 36.0 | 100.0 |
| 7. Trichur | 49.1 | 19.7 | 31.2 | 100.0 | 43.2 | 22.0 | 34.8 | 100.0 | 41.6 | 19.9 | 38.5 | 100.0 |
| 8. Palghat | 58.8 | 13.8 | 27.4 | 100.0 | 53.4 | 17.0 | 29.6 | 100.0 | 48.7 | 16.6 | 34.7 | 100.0 |
| 9. Malappuram | 63.7 | 9.6 | 26.7 | 100.0 | 57.2 | 11.0 | 31.8 | 100.0 | 58.4 | 10.4 | 31.2 | 100.0 |
| 10. Kozhikode | 55.6 | 12.1 | 32.3 | 100.0 | 49.5 | 15.3 | 35.2 | 100.0 | 49.2 | 13.1 | 37.7 | 100.0 |
| 11. Cannanore | 56.2 | 14.7 | 29.1 | 100.0 | 53.2 | 17.2 | 29.6 | 100.0 | 53.1 | 14.8 | 32.1 | 100.0 |
| 12. Kerala | 54.7 | 16.4 | 28.9 | 100.0 | 46.3 | 21.1 | 32.6 | 100.0 | 45.5 | 18.7 | 35.8 | 100.0 |

Annexure 2.10

Estimates of District-wise Per Capita Income of Kerala at Current Prices

| District | 1970-71 | Rank | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | Rank | 1977-78 | Rank |
|---------------|---------|------|--------|-----|--------|-----|--------|-----|---------|-----|---------|------|---------|------|---------|------|------|---------|------|
| (1) | | | | | | | | | | | | | | | | | | | |
| 1. Trivandrum | 548.66 | 6 | 575.55 | 5 | 636.47 | 5 | 798.95 | 6 | 908.27 | 5 | 943.96 | 5 | 948.41 | 5 | 942.81 | 7 | | | |
| 2. Quilon | 621.92 | 4 | 624.96 | 3 | 758.67 | 1 | 921.80 | 2 | 1063.89 | 2 | 1084.04 | 2 | 987.92 | 4 | 957.64 | 6 | | | |
| 3. Alleppey | 543.81 | 7 | 523.86 | 8 | 606.25 | 7 | 740.30 | 7 | 828.12 | 7 | 854.62 | 8 | 868.74 | 8 | 900.22 | 10 | | | |
| 4. Kottayam | 629.66 | 2 | 639.08 | 2 | 726.27 | 3 | 969.79 | 1 | 1123.03 | 1 | 1104.06 | 1 | 1100.49 | 3 | 1099.94 | 2 | | | |
| 4. Idukki | 622.55 | 3 | 606.59 | 4 | 663.22 | 4 | 814.41 | 4 | 1035.57 | 3 | 1051.58 | 3 | 1158.98 | 2 | 1018.99 | 4 | | | |
| 6. Ernakulam | 650.35 | 1 | 683.16 | 1 | 731.91 | 2 | 827.70 | 3 | 1016.09 | 4 | 1035.23 | 4 | 1181.82 | 1 | 1285.46 | 1 | | | |
| 7. Trichur | 532.23 | 9 | 526.98 | 7 | 583.12 | 9 | 666.48 | 10 | 752.97 | 10 | 782.04 | 10 | 898.89 | 9 | 915.92 | 9 | | | |
| 8. Palghat | 536.63 | 8 | 542.81 | 6 | 629.14 | 6 | 726.03 | 8 | 804.80 | 9 | 868.90 | 7 | 892.96 | 10 | 991.72 | 8 | | | |
| 9. Malappuram | 461.30 | 11 | 473.94 | 11 | 518.32 | 11 | 594.76 | 11 | 638.30 | 11 | 669.98 | 11 | 789.42 | 11 | 802.18 | 11 | | | |
| 10. Kozhikode | 566.48 | 5 | 523.72 | 9 | 591.19 | 8 | 809.36 | 5 | 844.70 | 6 | 886.00 | 6 | 919.39 | 7 | 1019.32 | 3 | | | |
| 11. Cannanore | 519.30 | 10 | 505.52 | 10 | 565.73 | 10 | 713.29 | 9 | 806.45 | 8 | 808.95 | 9 | 933.64 | 6 | 1003.09 | 5 | | | |
| 12. State | 563.56 | | 563.35 | | 635.58 | | 776.58 | | 882.71 | | 907.33 | | 948.04 | | 987.02 | | | | |

Annexure 2.11

Estimates of Distributions Per Capita Income of Kerala at Consistent (1970-71) Prices

(Rs.)

| District | 1970-71 | Rank | 1971-72 | Rank | 1972-73 | Rank | 1973-74 | Rank | 1974-75 | Rank | 1975-76 | Rank | 1976-77 | Rank | 1977-78 | Rank |
|---------------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) |
| 1. Trivandrum | 548.66 | 6 | 592.41 | 5 | 566.67 | 5 | 571.16 | 6 | 577.64 | 5 | 578.85 | 5 | 552.73 | 5 | 533.07 | 7 |
| 2. Quilon | 621.92 | 4 | 639.15 | 4 | 682.06 | 1 | 648.29 | 2 | 658.48 | 3 | 644.18 | 3 | 569.39 | 4 | 561.19 | 3 |
| 3. Alleppey | 543.81 | 7 | 542.07 | 8 | 542.71 | 8 | 534.40 | 8 | 542.18 | 8 | 543.16 | 8 | 507.29 | 7 | 512.82 | 10 |
| 4. Kottayam | 629.66 | 2 | 672.30 | 2 | 671.36 | 3 | 701.39 | 1 | 694.32 | 1 | 694.90 | 1 | 647.17 | 2 | 626.99 | 2 |
| 5. Idukki | 622.55 | 3 | 641.86 | 3 | 615.87 | 4 | 625.62 | 4 | 644.55 | 4 | 646.53 | 2 | 382.44 | 3 | 544.59 | 5 |
| 6. Ernakulam | 650.35 | 1 | 689.77 | 1 | 677.14 | 2 | 634.99 | 3 | 665.38 | 2 | 642.74 | 4 | 674.95 | 1 | 776.13 | 1 |
| 7. Trichur | 532.23 | 9 | 539.22 | 9 | 536.18 | 9 | 503.39 | 10 | 505.73 | 9 | 507.19 | 9 | 489.73 | 10 | 520.26 | 9 |
| 8. Palghat | 536.63 | 8 | 555.17 | 7 | 565.06 | 6 | 562.87 | 7 | 567.06 | 6 | 556.45 | 7 | 505.99 | 9 | 556.11 | 4 |
| 9. Malappuram | 461.30 | 11 | 478.30 | 11 | 477.69 | 11 | 442.16 | 11 | 425.60 | 11 | 423.25 | 11 | 444.41 | 11 | 436.24 | 11 |
| 10. Kozhikode | 566.43 | 5 | 557.54 | 6 | 553.42 | 7 | 574.11 | 5 | 544.70 | 7 | 562.03 | 6 | 522.52 | 6 | 537.35 | 6 |
| 11. Cannanore | 519.30 | 10 | 508.90 | 10 | 504.88 | 10 | 518.56 | 9 | 499.42 | 10 | 486.91 | 10 | 507.12 | 8 | 524.44 | 8 |
| 12. State | 563.56 | | 579.11 | | 578.51 | | 569.23 | | 568.93 | | 564.13 | | 542.22 | | 556.97 | |

APPENDIX 2.12

Ranking of Districts in Kerala based on Per Capita Income at Current Prices

(Rs.)

| District | Average per-capita Income for 3 years 1970-71 to 1972-73 | Percentage to State average per capita income | Rank | Average per-capita income for 3 years 1975-76 to 1977-78 | Percentage to State average per capita income | Rank |
|------------|--|---|------|--|---|------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Trivandrum | 586.89 | 99.90 | 5 | 945.06 | 99.75 | 5 |
| Quilon | 668.52 | 113.79 | 2 | 1009.87 | 106.59 | 4 |
| Alleppey | 557.97 | 94.97 | 8 | 874.53 | 92.30 | 9 |
| Kottayam | 665.00 | 119.19 | 3 | 1101.90 | 116.24 | 2 |
| Idukki | 630.79 | 107.97 | 4 | 1076.92 | 113.60 | 3 |
| Ernakulam | 688.47 | 117.19 | 1 | 1167.50 | 123.22 | 1 |
| Trichur | 547.44 | 93.18 | 9 | 845.42 | 89.23 | 10 |
| Palghat | 569.53 | 96.94 | 6 | 877.86 | 92.65 | 8 |
| Malappuram | 484.52 | 82.47 | 11 | 753.86 | 79.57 | 11 |
| Kozhikode | 560.45 | 95.40 | 7 | 941.57 | 99.38 | 6 |
| Cannanore | 530.18 | 90.24 | 10 | 915.23 | 96.60 | 7 |
| Kerala | 587.50 | 100.00 | .. | 947.46 | 100.00 | .. |

APPENDIX 2.13

Ranking of Districts in Kerala based in per capita income at constant (1970-71) prices

(Rs.)

| District | Average per-capita income for 3 years 1970-71 to 1972-73 | Percentage to State average per-capita income | Rank | Average per-capita income for 3 years 1975-76 to 1977-78 | Percentage to State average per-capita income | Rank |
|---------------|--|---|------|--|---|------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. Trivandrum | 569.25 | 99.21 | 5 | 553.22 | 99.77 | 5 |
| 2. Quilon | 647.71 | 112.89 | 3 | 591.59 | 106.70 | 3 |
| 3. Alleppey | 542.86 | 94.61 | 8 | 521.09 | 93.98 | 8 |
| 4. Kottayam | 657.77 | 114.64 | 2 | 656.95 | 118.38 | 2 |
| 5. Idukki | 626.76 | 109.24 | 4 | 591.19 | 106.62 | 4 |
| 6. Ernakulam | 672.42 | 117.20 | 1 | 697.94 | 125.88 | 1 |
| 7. Trichur | 535.88 | 93.40 | 9 | 505.73 | 91.21 | 10 |
| 8. Palghat | 552.29 | 96.26 | 7 | 539.52 | 97.30 | 7 |
| 9. Malappuram | 472.43 | 82.34 | 11 | 434.63 | 78.39 | 11 |
| 10. Kozhikode | 559.13 | 97.45 | 6 | 540.63 | 97.50 | 6 |
| 11. Cannanore | 511.03 | 89.07 | 10 | 506.16 | 91.29 | 9 |
| 12. State | 573.73 | 100.00 | .. | 554.44 | 100.00 | .. |

APPENDIX 2.14

States net domestic product at factor cost by industry of origin

At Current Prices
(Rs. in lakhs)

| States | 1960-61 | 1965-66 | 1968-69 | 1970-71 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1. Andhra Pradesh | 98,313 | 1,52,077 | 2,04,255 | 2,51,065 | 3,80,421 | 4,66,918 | 4,34,153 | 4,43,408 | 5,04,880 |
| 2. Assam | 33,600 | 49,370 | 69,550 | 75,820 | 1,00,990 | 1,32,110 | 1,32,720 | 1,40,430 | 1,54,400 |
| 3. Bihar | 99,302 | 1,67,604 | 2,00,407 | 2,24,544 | 3,40,006 | 4,13,949 | 4,06,218 | 4,37,939 | .. |
| 4. Gujarat | 73,817 | 1,15,243 | 1,51,518 | 2,21,274 | 3,09,301 | 2,99,809 | 3,57,865 | 4,07,109 | .. |
| 5. Haryana | 24,508 | 38,900 | 59,495 | 83,671 | 1,25,901 | 1,33,908 | 1,44,017 | 1,70,793 | .. |
| 6. Himachal Pradesh | 13,267 | .. | 18,937 | 22,753 | 33,859 | 39,080 | 39,941 | 40,613 | 45,701 |
| 7. Jammu & Kashmir | 9,478 | 12,707 | 19,316 | 23,901 | 35,471 | 42,199 | 45,777 | 47,715 | 52,900 |
| 8. Karnataka | 69,162 | 1,16,372 | 1,63,106 | 1,97,621 | 2,99,454 | 3,38,472 | 3,22,049 | 3,28,222 | 3,80,908 |
| 9. Kerala | 43,222 | 71,069 | 99,403 | 1,18,336 | 1,74,621 | 2,02,944 | 2,13,131 | 2,27,065 | 2,40,576 |
| 10. Madhya Pradesh | 83,230 | 1,10,780 | 1,67,610 | 2,00,030 | 3,24,190 | 3,75,600 | 3,59,560 | 3,63,190 | 4,42,100 |
| 11. Maharashtra | 1,59,742 | 2,35,448 | 3,32,308 | 3,99,194 | 5,92,186 | 7,35,613 | 7,60,398 | 8,39,451 | 9,34,800 |
| 12. Orissa | 37,408 | 64,008 | 96,448 | 1,08,986 | 1,66,664 | 1,73,203 | 1,81,141 | 1,72,784 | 2,15,464 |
| 13. Punjab | 40,377 | 68,357 | 1,23,653 | 1,38,134 | 2,04,561 | 2,21,292 | 2,36,168 | 2,73,297 | 3,08,100 |
| 14. Rajasthan | 55,941 | 82,533 | 98,093 | 1,58,728 | 2,27,013 | 2,37,712 | 2,46,725 | 2,64,130 | 2,82,383 |
| 15. Tamil Nadu | 1,11,185 | 1,49,422 | 1,92,632 | 2,42,072 | 3,54,375 | 3,79,343 | 3,90,966 | 4,24,116 | 4,66,990 |
| 16. Uttar Pradesh | 1,90,394 | 3,05,155 | 3,97,237 | 4,25,650 | 6,21,596 | 7,04,439 | 6,91,696 | 7,90,559 | 8,87,683 |
| 17. West Bengal | 1,10,693 | 1,61,029 | 2,04,697 | 3,21,172 | 4,36,288 | 5,10,835 | 5,27,462 | 5,69,290 | 6,63,112 |
| All India (N.D.P.) | 13,33,500 | 20,80,100 | 28,86,200 | 34,65,200 | 50,99,000 | 59,60,600 | 61,86,400 | 66,79,300 | 73,38,900 |
| All India (N.N.P.) | 13,26,300 | 20,63,700 | 28,60,700 | 34,36,800 | 50,66,500 | 59,31,500 | 61,60,900 | 66,56,100 | 73,15,700 |

APPENDIX 2.15

Estimate of per capita income of States—At current prices

| | | (Rs.) | | | | | | | | |
|-------|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| State | | 1960-61 | 1965-66 | 1968-69 | 1970-71 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
| (1) | | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1. | Andhra Pradesh | 275.0 | 387.0 | 494.6 | 583.6 | 828.6 | 994.3 | 903.4 | 901.2 | 1,001.9 |
| 2. | Assam | 315.0 | 399.0 | 514.0 | 528.0 | 641.0 | 811.0 | 794.0 | 816.0 | 866.0 |
| 3. | Bihar | 215.4 | 331.9 | 375.5 | 402.3 | 575.2 | 687.1 | 681.4 | 699.7 | .. |
| 4. | Gujarat | 362.0 | 498.0 | 606.0 | 842.0 | 1,092.0 | 1,033.0 | 1,205.0 | 1,341.0 | .. |
| 5. | Haryana | 327.0 | 450.0 | 634.0 | 845.0 | 1,174.0 | 1,217.0 | 1,274.0 | 1,472.0 | .. |
| 6. | Himachal Pradesh | 305.7 | .. | 576.0 | 664.3 | 928.9 | 1,030.3 | 1,051.4 | 1,047.0 | 1,154.1 |
| 7. | Jammu and Kashmir | 269.0 | 317.1 | 446.2 | 524.4 | 720.5 | 835.5 | 883.4 | 897.4 | 986.0 |
| 8. | Karnataka | 295.7 | 447.7 | 558.1 | 682.0 | 971.1 | 1,075.5 | 1,003.1 | 1,002.4 | 1,140.8 |
| 9. | Kerala | 258.6 | 378.5 | 495.6 | 584.2 | 799.6 | 889.8 | 903.6 | 968.1 | 937.0 |
| 10. | Madhya Pradesh | 260.3 | 305.1 | 428.1 | 487.9 | 723.8 | 817.4 | 763.2 | 752.7 | 895.8 |
| 11. | Maharashtra | 409.0 | 533.7 | 700.4 | 801.5 | 1,116.5 | 1,358.9 | 1,376.2 | 1,488.5 | 1,628.0 |
| 12. | Manipur | 154.2 | 267.7 | 485.3 | 390.0 | 788.0 | 788.0 | 797.5 | 770.2 | 799.4 |
| 13. | Orissa | 216.5 | 328.6 | 463.7 | 502.3 | 718.4 | 730.0 | 746.6 | 696.4 | 857.2 |
| 14. | Punjab | 336.0 | 562.0 | 881.0 | 1,030.0 | 1,438.0 | 1,525.0 | 1,597.0 | 1,812.0 | 1,991.0 |
| 15. | Rajasthan | 284.0 | 373.0 | 414.0 | 623.0 | 824.0 | 840.0 | 850.0 | 887.0 | 925.0 |
| 16. | Tamil Nadu | 330.0 | 406.0 | 494.0 | 594.8 | 829.9 | 874.1 | 888.6 | 950.1 | 1,030.9 |
| 17. | Uttar Pradesh | 259.8 | 381.2 | 470.3 | 486.3 | 672.4 | 748.1 | 721.3 | 809.4 | 892.3 |
| 18. | West Bengal | 320.7 | 414.6 | 491.0 | 737.0 | 936.6 | 1,072.5 | 1,083.1 | 1,143.4 | 1,302.8 |
| 19. | All India | 305.6 | 425.5 | 552.3 | 635.3 | 875.0 | 1,003.6 | 1,020.0 | 1,080.5 | 1,163.1 |

APPENDIX 2.16

Estimated annual live birth rates and death rates—State-wise.

| State | Birth rate (No. of live births per 1000 population) | | Death rate (No. of deaths per 1000 population) | |
|----------------------|---|---------|--|---------|
| | 1974 | 1977 | 1974 | 1977 |
| (1) | (2) | (3) | (4) | (5) |
| 1. Andhra Pradesh | 34.6 | 32.3 | 15.3 | 14.2 |
| 2. Assam | 32.8 | 30.1 | 16.8 | 12.9 |
| 3. Bihar | 28.7 | 31.1(*) | 15.9 | 12.1(*) |
| 4. Gujarat | 33.4 | 36.1 | 13.9 | 14.8 |
| 5. Haryana | 39.5 | 34.6 | 12.6 | 13.7 |
| 6. Himachal Pradesh | 34.9 | 32.5 | 12.3 | 11.6 |
| 7. Jammu and Kashmir | 29.5 | 31.6 | 10.1 | 11.3 |
| 8. Karnataka | 28.0 | 26.3 | 10.8 | 11.1 |
| 9. Kerala | 26.3 | 25.8 | 7.8 | 7.3 |
| 10. Madhya Pradesh | 36.6 | 33.3 | 15.8 | 17.9 |
| 11. Maharashtra | 29.0 | 26.2 | 11.5 | 12.8 |
| 12. Orissa | 33.6 | 29.9 | 15.8 | 16.6 |
| 13. Punjab | 32.0 | 31.0 | 10.6 | 10.8 |
| 14. Rajasthan | 36.3 | 32.8 | 14.3 | 14.8 |
| 15. Tamil Nadu | 29.2 | 29.3 | 13.9 | 13.7 |
| 16. Uttar Pradesh | 42.1 | 40.3 | 19.7 | 19.1 |
| 17. West Bengal | 28.0 | 31.9(*) | 12.4 | 11.9(*) |
| All India | 34.5 | 33.0 | 14.5 | 14.7 |

(*) Previous years figures repeated.

Source: Sample Registration Bulletin, June 1979 Registrar General of India.

APPENDIX 3.1

Increase in Wholesale Price Index Vis-a-Vis Increase in Money Supply

| Month | Index of Money Supply | | Index of Wholesale Prices | |
|-----------|-----------------------|-------|---------------------------|-------|
| | 1978 | 1979 | 1978 | 1979 |
| January | 109.0 | 100.0 | 100.0 | 100.0 |
| February | 101.2 | 99.6 | 98.1 | 99.6 |
| March | 106.3 | 103.5 | 99.2 | 102.0 |
| April | 109.5 | 104.5 | 98.9 | 103.4 |
| May | 110.2 | 105.8 | 99.2 | 106.8 |
| June | 112.6 | 109.9 | 100.2 | 108.9 |
| July | 110.7 | 109.6 | 100.9 | 112.9 |
| August | 109.5 | 110.9 | 101.2 | 116.5 |
| September | 109.8 | 107.1 | 101.0 | 118.6 |
| October | 112.4 | 109.1 | 101.6 | 118.8 |
| November | 114.2 | 109.0 | 101.4 | 118.6 |
| December | 120.8 | 112.2 | 100.3 | 121.4 |

APPENDIX 3.2

Index Number of wholesale prices—All India—1979 (Base 1970-71=100)

| Item | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---------|----------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (11) | (12) |
| Primary Articles | 120.0 | 178.0 | 181.1 | 185.1 | 187.7 | 193.7 | 204.1 | 203.8 | 207.0 | 207.0 | 203.9 | 209.9 |
| Food Articles | 168.4 | 166.0 | 169.3 | 171.0 | 175.5 | 182.8 | 190.4 | 193.0 | 189.4 | 169.4 | 188.5 | 190.8 |
| Cereals | 157.9 | 157.4 | 156.8 | 157.2 | 158.2 | 160.8 | 166.0 | 171.4 | 176.7 | 178.4 | 180.1 | 184.9 |
| Pulses | 246.4 | 234.6 | 236.4 | 237.4 | 235.7 | 238.6 | 242.0 | 250.7 | 252.6 | 248.9 | 245.7 | 246.1 |
| Fruits and Vegetables | 148.4 | 140.9 | 152.9 | 163.5 | 183.0 | 198.7 | 217.3 | 223.3 | 196.0 | 197.0 | 187.9 | 185.3 |
| Milk and Milk Products | 161.3 | 161.4 | 166.7 | 166.4 | 168.8 | 175.1 | 175.2 | 170.6 | 170.4 | 169.2 | 169.3 | 169.9 |
| Non-food Articles | 174.5 | 173.4 | 175.9 | 179.6 | 177.3 | 180.7 | 187.6 | 194.5 | 197.5 | 197.6 | 199.4 | 198.3 |
| Fibres | 165.6 | 164.6 | 166.4 | 167.8 | 166.9 | 165.9 | 166.6 | 169.0 | 169.8 | 167.6 | 167.3 | 163.1 |
| Oil Seeds | 154.1 | 148.0 | 151.0 | 156.2 | 155.6 | 164.3 | 180.9 | 193.8 | 201.6 | 194.7 | 188.7 | 191.1 |
| Fuel, Power, Light and Lubricants | 240.2 | 240.3 | 250.9 | 252.6 | 251.4 | 252.9 | 260.5 | 275.0 | 295.2 | 294.8 | 294.9 | 280.1 |
| Manufactured Products | 180.5 | 180.6 | 185.2 | 194.2 | 195.2 | 199.1 | 205.1 | 211.9 | 217.7 | 218.4 | 217.7 | 220.1 |
| Food Products | 150.6 | 144.8 | 155.0 | 170.2 | 174.0 | 184.3 | 201.0 | 219.5 | 227.9 | 223.0 | 213.8 | 220.1 |
| Textiles | 181.8 | 186.6 | 186.6 | 191.2 | 191.1 | 192.0 | 194.4 | 193.2 | 205.1 | 207.0 | 203.1 | 200.1 |
| Chemicals and Chemical Products | 178.7 | 179.3 | 181.1 | 181.8 | 182.4 | 183.1 | 184.7 | 186.0 | 192.8 | 193.7 | 201.8 | 200.1 |
| Basic Metals, Alloys and Metal Products | 216.4 | 216.8 | 220.0 | 241.1 | 239.5 | 242.1 | 245.6 | 246.6 | 249.2 | 251.6 | 239.6 | 240.1 |
| All Commodities | 185.3 | 184.6 | 189.0 | 195.3 | 196.8 | 201.3 | 209.3 | 215.9 | 219.8 | 220.1 | 219.7 | 220.1 |

APPENDIX 3.3

Consumer price index Numbers for industrial workers in India—1979 (Base 1950=100)

| Centre | 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. Ahmedabad | 322 | 321 | 327 | 328 | 331 | 335 | 341 | 347 | 350 | 353 | .. | .. |
| 2. Bangalore | 339 | 341 | 344 | 350 | 354 | 358 | 367 | 379 | 379 | 379 | .. | .. |
| 3. Bombay | 324 | 323 | 326 | 331 | 335 | 344 | 351 | 361 | 360 | 365 | .. | .. |
| 4. Calcutta | 331 | 325 | 229 | 331 | 335 | 346 | 349 | 354 | 355 | 357 | .. | .. |
| 5. Coimbatore | 331 | 330 | 329 | 332 | 343 | 347 | 653 | 358 | 363 | 369 | .. | .. |
| 6. Delhi | 368 | 366 | 371 | 375 | 374 | 378 | 388 | 390 | 393 | 394 | .. | .. |
| 7. Hyderabad | 341 | 335 | 335 | 340 | 333 | 345 | 361 | 370 | 376 | 379 | .. | .. |
| 8. Madras | 328 | 324 | 325 | 327 | 327 | 334 | 346 | 349 | 352 | 351 | .. | .. |
| 9. Mundakayam | 321 | 317 | 315 | 318 | 323 | 325 | 341 | 337 | 336 | 335 | .. | .. |
| 10. Nagpur | 328 | 324 | 324 | 332 | 333 | 339 | 346 | 350 | 360 | 362 | .. | .. |
| 11. Alwaye | 341 | 340 | 340 | 344 | 352 | 357 | 362 | 362 | 369 | 369 | .. | .. |
| All India | 332 | 329 | 332 | 337 | 339 | 345 | 353 | 360 | 363 | 365 | 368 | .. |

APPENDIX 3.4

Wholesale Price Index of Agricultural Commodities—Kerala (1979) Base 1952-53=100

| Group | January | February | March | April | May | June | July | August | September | October | November | December | Yearly average |
|--------------------------|---------|----------|-------|-------|-------|-------|-------|--------|-----------|---------|----------|----------|----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
| 1. Foodgrains (rice) | 318.7 | 318.7 | 318.7 | 318.7 | 318.7 | 318.7 | 318.7 | 318.7 | 318.7 | 318.7 | 318.7 | 318.7 | 318.7 |
| 2. Molasses | 305.7 | 282.1 | 293.9 | 305.7 | 319.3 | 333.8 | 331.3 | 429.6 | 427.3 | 442.4 | 511.4 | 539.2 | 384.4 |
| 3. Condiments and Spices | 303.7 | 347.4 | 381.8 | 472.0 | 517.8 | 491.3 | 367.5 | 328.4 | 333.5 | 339.3 | 318.1 | 326.8 | 377.7 |
| 4. Fruits and Vegetables | 602.4 | 480.6 | 487.3 | 467.6 | 479.0 | 491.7 | 521.7 | 528.4 | 535.2 | 536.5 | 547.5 | 541.8 | 518.3 |
| 5. Food Crops | 364.6 | 349.6 | 356.7 | 368.5 | 378.3 | 377.2 | 363.0 | 359.3 | 361.2 | 362.8 | 363.4 | 365.4 | 364.2 |
| 6. Oil Seeds | 648.5 | 642.4 | 647.4 | 628.0 | 593.6 | 607.1 | 641.6 | 650.5 | 665.9 | 663.0 | 689.6 | 703.1 | 643.1 |
| 7. Plantation Crops | 307.2 | 303.0 | 303.3 | 302.4 | 312.4 | 307.6 | 305.2 | 303.3 | 297.6 | 302.2 | 305.7 | 310.4 | 305.9 |
| 8. Non-food Crops | 545.4 | 539.9 | 542.6 | 531.8 | 503.7 | 516.7 | 540.0 | 547.2 | 554.7 | 554.0 | 574.0 | 552.4 | 544.9 |
| All Crops | 430.6 | 419.1 | 424.5 | 428.1 | 425.9 | 428.1 | 427.6 | 427.9 | 431.8 | 432.6 | 440.3 | 446.6 | 433.3 |

APPENDIX 3.5

Wholesale Price Index of Agricultural Commodities—Kerala (1970-79)

(Base 1952-53=100)

| Group | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 1. Foodgrains (Rice) | 209 | 209 | 209 | 233 | 297 | 319 | 319 | 319 | 319 | 319 |
| 2. Molasses | 172 | 239 | 272 | 280 | 282 | 416 | 423 | 368 | 289 | 304 |
| 3. Condiments and Spices | 234 | 171 | 139 | 161 | 222 | 218 | 318 | 309 | 324 | 378 |
| 4. Fruits and Vegetables | 217 | 208 | 234 | 306 | 402 | 385 | 380 | 497 | 564 | 518 |
| 5. Food Crops | 213 | 203 | 204 | 233 | 302 | 317 | 332 | 349 | 360 | 364 |
| 6. Oil Seeds | 369 | 303 | 287 | 466 | 617 | 479 | 525 | 606 | 677 | 646 |
| 7. Plantation Crops | 141 | 138 | 139 | 154 | 215 | 247 | 236 | 310 | 308 | 308 |
| 8. Non-food crops | 300 | 253 | 242 | 372 | 496 | 409 | 438 | 516 | 565 | 543 |
| All Crops | 245 | 222 | 218 | 285 | 373 | 350 | 371 | 410 | 435 | 400 |

APPENDIX 3.6

State Average of Retail Prices of Essential Commodities—1979 (in Rupees)

| Sl. No. | Commodity | Unit | End of the month | | | | | | | | | | | | | |
|---------|--|----------|------------------|----------|--------|-------|-------|--------|--------|--------|-----------|---------|----------|----------|------|------|
| | | | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
| | | | January | February | March | April | May | June | July | August | September | October | November | December | | |
| 1. | Rice (O.M.) | Kg. | 2.17 | 2.11 | 2.11 | 2.17 | 2.16 | 2.22 | 2.24 | 2.27 | 2.27 | 2.19 | 2.36 | 2.2 | | |
| 2. | Greengram | " | 4.15 | 4.22 | 4.34 | 4.80 | 4.89 | 5.01 | 5.04 | 4.88 | 4.72 | 4.65 | 4.61 | 4.7 | | |
| 3. | Blackgram | " | 3.70 | 3.67 | 3.63 | 3.65 | 3.64 | 3.65 | 3.65 | 3.69 | 3.69 | 3.72 | 3.62 | 3.7 | | |
| 4. | Redgram | " | 2.96 | 2.89 | 2.89 | 3.05 | 3.06 | 3.19 | 3.56 | 3.68 | 3.79 | 3.72 | 3.71 | 3.4 | | |
| 5. | Dhall | " | 5.19 | 4.87 | 4.83 | 4.92 | 4.97 | 4.96 | 5.00 | 5.22 | 5.28 | 5.33 | 5.27 | 5.1 | | |
| 6. | Coconut Oil | " | 11.71 | 11.31 | 11.25 | 10.95 | 10.78 | 12.49 | 12.68 | 13.88 | 13.43 | 13.66 | 14.53 | 12.6 | | |
| 7. | Groundnut Oil | " | 8.57 | 8.47 | 8.66 | 8.82 | 8.68 | 9.31 | 10.66 | 12.56 | 12.66 | 11.93 | 12.07 | 11.57 | | |
| 8. | Refined Oil | " | 12.18 | 12.11 | 14.65 | 13.29 | 11.68 | 13.06 | 13.68 | 15.09 | 15.97 | 16.15 | 16.20 | 15.93 | | |
| 9. | Gingelly Oil | " | 9.46 | 9.42 | 9.42 | 9.53 | 9.49 | 9.54 | 10.16 | 12.11 | 12.52 | 12.91 | 12.83 | 13.00 | | |
| 10. | Tapioca | " | 0.56 | 0.58 | 0.59 | 0.58 | 0.57 | 0.57 | 0.59 | 0.61 | 0.61 | 0.63 | 0.66 | 0.60 | | |
| 11. | Chennai | " | 0.84 | 0.86 | 0.91 | 0.97 | 0.99 | 1.09 | 1.13 | 1.07 | 0.96 | 0.94 | 0.92 | 0.86 | | |
| 12. | Banana (Green) | " | 1.93 | 2.11 | 2.02 | 2.05 | 2.38 | 2.39 | 2.52 | 2.73 | 2.72 | 2.70 | 2.67 | 2.51 | | |
| 13. | Milk (cow's) | Ltr. | 2.36 | 2.40 | 2.38 | 2.38 | 2.38 | 2.37 | 2.37 | 2.37 | 2.39 | 2.39 | 2.45 | 2.2 | | |
| 14. | Egg (Hen's) | Doz. | 4.94 | 4.92 | 4.92 | 4.33 | 4.97 | 5.08 | 5.63 | 5.34 | 4.76 | 4.96 | 5.60 | 5.41 | | |
| 15. | Mutton | Kg. | 14.40 | 14.60 | 14.70 | 14.80 | 15.00 | 15.20 | 15.30 | 15.60 | 16.10 | 16.30 | 16.70 | 17.80 | | |
| 16. | Potato | " | 1.31 | 1.36 | 1.32 | 1.29 | 1.46 | 1.80 | 1.71 | 1.55 | 1.40 | 1.41 | 1.50 | 1.58 | | |
| 17. | Coriander | " | 3.69 | 3.61 | 3.56 | 3.83 | 3.91 | 3.73 | 3.73 | 3.80 | 3.71 | 3.78 | 3.72 | 3.71 | | |
| 18. | Chillies | " | 11.42 | 9.63 | 8.73 | 8.58 | 8.38 | 8.58 | 9.39 | 10.60 | 10.22 | 10.07 | 9.89 | 9.70 | | |
| 19. | Onion | " | 0.65 | 0.66 | 0.95 | 1.24 | 1.32 | 1.62 | 1.93 | 1.34 | 1.17 | 1.89 | 2.81 | 1.64 | | |
| 20. | Tamarind | " | 6.53 | 5.52 | 5.27 | 5.38 | 5.48 | 5.38 | 5.42 | 5.63 | 5.86 | 6.09 | 6.31 | 5.8 | | |
| 21. | Tea—Brooke Bond A1 dust | " | 18.66 | 18.64 | 18.78 | 18.58 | 18.63 | 18.75 | 18.99 | 18.99 | 18.99 | 18.99 | 18.99 | 18.9 | | |
| 22. | Coffee Powder Brooke Bond Family Brand | " | 18.41 | 18.42 | 18.33 | 18.19 | 17.93 | 17.86 | 17.35 | 17.27 | 17.27 | 17.18 | 17.18 | 17.7 | | |
| 23. | Sugar (O. M.L.) | " | 2.31 | 2.32 | 2.63 | 2.76 | 2.77 | 2.76 | 2.89 | 3.06 | 2.99 | 2.90 | 3.51 | 3.0 | | |
| 24. | Coconut (without Husk) | 100 Nos. | 103.30 | 102.75 | 104.00 | 99.45 | 95.95 | 105.00 | 106.60 | 113.30 | 119.00 | 113.50 | 120.70 | 119.20 | | |

APPENDIX 3.6—(Contd.)

| Sl. No. | Commodity | Unit | End of the month | | | | | | | | | | | |
|---------|---------------------------------|-----------|------------------|-----------------|--------------|--------------|------------|-------------|--------------|----------------|-------------------|-----------------|------------------|------------------|
| | | | January (4) | February (5) | March (6) | April (7) | May (8) | June (9) | July (10) | August (11) | September (12) | October (13) | November (14) | December (15) |
| 25. | Tobacco | Kg. | 11.90 | 11.75 | 9.90 | 9.55 | 9.50 | 9.80 | 12.15 | 12.05 | 11.50 | 11.60 | 11.75 | 12.55 |
| 26. | Firewood—Local, Split | Qtul. | 24.85 | 25.20 | 25.90 | 27.15 | 28.15 | 29.05 | 30.15 | 31.63 | 32.15 | 33.10 | 31.67 | 29.3 |
| 27. | Mundu (Mull) | Each | 10.23 | 10.23 | 10.21 | 10.23 | 10.23 | 10.39 | 10.37 | 10.66 | 10.68 | 10.03 | 11.07 | 11.00 |
| 28. | Mundu (Kora) | " | 7.90 | 7.90 | 7.80 | 7.81 | 7.81 | 7.86 | 7.87 | 7.88 | 7.92 | 8.20 | 8.20 | 8.0 |
| 29. | Paper | 24 sheets | 1.58 | 1.59 | 1.62 | 1.64 | 1.69 | 1.79 | 1.80 | 1.83 | 1.88 | 1.90 | 1.99 | 2.12 |
| 30. | Washing Soda | Kg. | 3.27 | 3.28 | 3.31 | 3.52 | 3.65 | 3.77 | 3.75 | 3.96 | 4.19 | 4.32 | 4.52 | 4.59 |
| 31. | Washing Soap Sunlight Bar | Each | 1.59 | 1.59 | 1.73 | 1.75 | 1.70 | 1.68 | 1.68 | 1.71 | 1.77 | 1.82 | 1.92 | 1.97 |
| 32. | Toilet Soap Lux, Cake | " | 1.41 | 1.41 | 1.45 | 1.45 | 1.44 | 1.44 | 1.44 | 1.47 | 1.50 | 1.60 | 1.66 | 1.69 |
| 33. | Razor Blade, Prince Ordinary | 5 Nos. | 0.58 | 0.58 | 0.59 | 0.58 | 0.59 | 0.59 | 0.64 | 0.65 | 0.65 | 0.65 | 0.67 | 0.65 |
| 34. | Tooth Paste Colgate, Large Tube | Each | 3.41 | 3.33 | 3.64 | 3.50 | 3.56 | 3.71 | 3.95 | 4.02 | 4.07 | 4.09 | 4.18 | 4.18 |
| 35. | Anacin | 2 tabs. | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| 36. | Electric Bulb Osram 40 W. | Each | 3.19 | 3.29 | 3.30 | 3.35 | 3.46 | 3.48 | 3.49 | 3.51 | 3.53 | 3.55 | 3.71 | 3.68 |
| 37. | Aluminium Cooking Pot | Kg. | 28.26 | 28.26 | 28.10 | 28.21 | 28.36 | 28.56 | 29.29 | 29.19 | 29.35 | 30.01 | 30.15 | 30.34 |
| 38. | Cement | Bags. | 26.89 | 26.28 | 25.64 | 25.99 | 27.71 | 28.86 | 29.50 | 29.44 | 29.44 | 28.89 | 28.97 | 29.76 |
| 39. | Baby food—Amul | Kg. | 23.32 | 23.28 | 23.32 | 23.32 | 23.33 | 23.32 | 23.32 | 23.82 | 23.94 | 24.32 | 24.86 | 24.98 |
| 40. | Torch Battery—Eveready 950 | Each | 1.75 | 1.75 | 1.79 | 1.85 | 1.86 | 1.85 | 1.86 | 1.86 | 1.86 | 1.96 | 1.98 | 1.97 |

APPENDIX 3.7

Consumer Price Index (Cost of Living Index) Numbers for Agricultural & Industrial Workers,—Kerala
Index Numbers for the Months of January to December—1979 (Base: 1970=100)

| Centre | January | February | March | April | May | June | July | August | September | Oct. | Nov. | December |
|----------------|---------|----------|-------|-------|-----|------|------|--------|-----------|------|------|----------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1. Trivandrum | 169 | 168 | 170 | 174 | 175 | 176 | 178 | 182 | 184 | 185 | 189 | 194 |
| 2. Quilon | 169 | 169 | 171 | 175 | 175 | 177 | 180 | 184 | 185 | 185 | 187 | 192 |
| 3. Punalur | 161 | 161 | 163 | 167 | 169 | 171 | 173 | 177 | 180 | 181 | 185 | 190 |
| 4. Alleppey | 163 | 162 | 163 | 167 | 169 | 172 | 175 | 178 | 178 | 179 | 181 | 187 |
| 5. Kottayam | 163 | 164 | 166 | 170 | 171 | 174 | 177 | 180 | 181 | 180 | 182 | 188 |
| 6. Mundakayam | 162 | 162 | 163 | 166 | 166 | 168 | 172 | 174 | 174 | 174 | 177 | 182 |
| 7. Munnar | 177 | 176 | 177 | 180 | 181 | 184 | 186 | 189 | 191 | 192 | 194 | 200 |
| 8. Ernakulam | 164 | 165 | 165 | 168 | 168 | 170 | 172 | 174 | 174 | 175 | 179 | 183 |
| 9. Chalakudy | 168 | 168 | 170 | 173 | 174 | 176 | 179 | 181 | 183 | 184 | 187 | 191 |
| 10. Trichur | 169 | 169 | 171 | 174 | 175 | 177 | 180 | 183 | 184 | 185 | 187 | 193 |
| 11. Palghat | 164 | 164 | 166 | 170 | 171 | 174 | 177 | 179 | 180 | 181 | 183 | 187 |
| 12. Malappuram | 166 | 167 | 169 | 173 | 175 | 177 | 180 | 183 | 184 | 184 | 187 | 191 |
| 13. Kozhikode | 173 | 173 | 174 | 177 | 178 | 180 | 183 | 185 | 185 | 185 | 188 | 193 |
| 14. Meppadi | 172 | 173 | 175 | 178 | 178 | 181 | 184 | 188 | 188 | 188 | 190 | 195 |
| 15. Cannanore | 164 | 165 | 166 | 169 | 171 | 174 | 177 | 180 | 181 | 181 | 183 | 187 |

APPENDIX 4.1

Farm Commodity Prices—Kerala

(In Rupees)

| Commodity Months | Paddy per Quintal | | Tapioca per Quintal | | Coconut per 100 Nos. | | Pepper per Quintal | | Ginger per Quintal | |
|---------------------|-------------------|--------|---------------------|-------|----------------------|--------|--------------------|---------|--------------------|--------|
| | 1978 | 1979 | 1978 | 1979 | 1978 | 1979 | 1978 | 1979 | 1978 | 1979 |
| January | 131.18 | 127.04 | 30.05 | 35.69 | 107.16 | 103.33 | 1584.19 | 1413.45 | 1030.23 | 607.69 |
| February | 126.35 | 125.66 | 29.41 | 37.81 | 104.65 | 102.87 | 1534.90 | 1405.03 | 1044.07 | 548.37 |
| March | 130.62 | 126.35 | 28.99 | 39.24 | 104.07 | 104.23 | 1537.71 | 1397.50 | 1024.79 | 536.47 |
| April | 129.38 | 128.28 | 30.92 | 38.82 | 105.77 | 100.82 | 1639.36 | 1387.66 | 1240.74 | 498.53 |
| May | 129.11 | 130.07 | 31.80 | 39.81 | 105.02 | 94.89 | 1607.88 | 1376.37 | 1278.76 | 443.93 |
| June | 130.62 | 133.24 | 31.08 | 40.18 | 105.72 | 100.34 | 1655.74 | 1400.65 | 1242.49 | 435.31 |
| July | 132.14 | 136.55 | 31.12 | 40.36 | 104.37 | 103.78 | 1654.42 | 1492.04 | 1127.70 | 427.20 |
| August | 131.31 | 137.51 | 32.08 | 41.46 | 104.60 | 106.52 | 1617.86 | 1459.67 | 1009.06 | 411.62 |
| September | 127.18 | 134.62 | 32.52 | 40.62 | 111.65 | 107.64 | 1639.69 | 1472.50 | 937.10 | 429.37 |
| October | 127.04 | NR | 32.47 | NR | 112.23 | NR | 1655.59 | NR | 924.42 | NR |
| November | 128.56 | NR | 33.98 | NR | 122.26 | NR | 1630.11 | NR | 834.22 | NR |
| December | 128.56 | NR | 34.45 | NR | 107.49 | NR | 1478.77 | NR | 648.11 | NR |
| Average | 129.34 | 131.04 | 31.57 | 39.33 | 107.90 | 102.71 | 1603.02 | 1422.76 | 1028.47 | 482.05 |

NR.—Not reported

Figures for 1979 are provisional.

Source: Bureau of Economics and Statistics, Kerala

APPENDIX 4.2

Land Use Pattern in Kerala during 1978-79

(Area in hectares)

| District | Total Geographical Area According to Village Papers | Forest | Land Put to Non-Agricultural Uses | Barren and Uncultivable Land | Pastures and Grazing Land | Land under Miscellaneous Tree Crops not included in Net Area Sown | Cultivable Waste | Fallow Land Other than Current Fallow | Current Fallow | Net Area Sown | Area Sown more than once | Total Cropped Area |
|---------------|---|---------|-----------------------------------|------------------------------|---------------------------|---|------------------|---------------------------------------|----------------|---------------|--------------------------|--------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1. Trivandrum | 218600 | 49861 | 16039 | 1420 | 48 | 265 | 2237 | 1502 | 2324 | 144904 | 84509 | 229413 |
| 2. Quilon | 474290 | 236048 | 23663 | 2722 | 50 | 390 | 1181 | 1387 | 1780 | 207069 | 120864 | 327993 |
| 3. Alleppey | 182270 | 518 | 29690 | 640 | 20 | 225 | 2742 | 849 | 5337 | 142249 | 81264 | 223513 |
| 4. Kottayam | 219550 | 8141 | 15911 | 1733 | 148 | 445 | 1363 | 3194 | 3668 | 184947 | 54643 | 239590 |
| 5. Idukki | 515048 | 260993 | 13475 | 17207 | 5268 | 17598 | 39644 | 1107 | 1136 | 158620 | 1991 | 160611 |
| 6. Ernakulam | 235319 | 8123 | 26992 | 1525 | 279 | 2593 | 6035 | 2074 | 4079 | 183619 | 73079 | 256698 |
| 7. Trichur | 299390 | 103619 | 19848 | 2985 | 260 | 1508 | 5176 | 984 | 4399 | 160611 | 75734 | 236345 |
| 8. Palghat | 438980 | 136257 | 32311 | 11146 | 1154 | 9291 | 19840 | 5300 | 6436 | 217245 | 103903 | 557493 |
| 9. Malappuram | 363230 | 103417 | 16330 | 6790 | 676 | 2912 | 12904 | 4358 | 7668 | 208175 | 71826 | 280001 |
| 10. Kozhikode | 371150 | 90876 | 21163 | 3974 | 397 | 11133 | 5712 | 1400 | 2436 | 234059 | 50661 | 284720 |
| 11. Cannanore | 567670 | 83656 | 36490 | 24041 | 2190 | 20553 | 19658 | 4405 | 5900 | 370777 | 18951 | 389728 |
| STATE | 3885497 | 1081509 | 251912 | 74183 | 10490 | 66913 | 116492 | 26560 | 45163 | 2212275 | 737425 | 2949700 |

Note:—Provisional Estimates

Source: Bureau of Economics and Statistics, Kerala

APPENDIX 4.3

Consumption of Fertilizers in Kerala

(In tonnes)

| Year | Nutrients | | | Total |
|---------|-----------|--|---------------------------|-------|
| | Nitrogen | Phosphorous (P ₂ O ₅) | Potash (K ₂ O) | |
| (1) | (2) | (3) | (4) | (5) |
| 1956-57 | 3425 | 1052 | 68 | 3545 |
| 1960-61 | 5314 | 4703 | 2032 | 12042 |
| 1965-66 | 15251 | 12773 | 11305 | 39329 |
| 1969-70 | 30120 | 20347 | 21543 | 72010 |
| 1970-71 | 26335 | 14183 | 16139 | 56655 |
| 1971-72 | 31257 | 15670 | 18044 | 64971 |
| 1972-73 | 37484 | 22314 | 20470 | 74268 |
| 1973-74 | 31691 | 22609 | 24546 | 78846 |
| 1974-75 | 32143 | 17187 | 18032 | 67362 |
| 1975-76 | 31654 | 14374 | 16643 | 62671 |
| 1976-77 | 33553 | 15996 | 20157 | 69406 |
| 1977-78 | 36995 | 19069 | 25336 | 81400 |
| 1978-79 | 45690 | 23381 | 30765 | 99836 |

Source: Department of Agriculture, Kerala.

APPENDIX 4.4

State-wise Area, Production and Yield of Coffee

| State | Area (in Ha.) | | Production (in tonnes) | | Yield (kg./ha.) | |
|----------------|---------------|---------|------------------------|---------|-----------------|---------|
| | 1976-77 | 1977-78 | 1976-77 | 1977-78 | 1976-77 | 1977-78 |
| Karnataka | 100926 | 104547 | 78255 | 87400 | 775 | 836 |
| Tamilnadu | 32225 | 32909 | 8825 | 8870 | 273 | 270 |
| Andhra Pradesh | 1558 | 1990 | 265 | 245 | 170 | 123 |
| Kerala | 52644 | 51708 | 14955 | 28465 | 284 | 551 |
| Other States | 1094 | 1094 | N.A. | N.A. | N.A. | N.A. |
| Total | 188447 | 192248 | 102300 | 125000 | 542 | 650 |

Source: Coffee Board

APPENDIX 4.5

Species-wise Area, Production and Yield of Coffee in Kerala.

| Species | Area (in Ha.) | | (Production in Tonnes) | | Yield/ha. (in kg.) | |
|--------------|---------------|--------------|------------------------|--------------|--------------------|------------|
| | 1976-77 | 1977-78 | 1976-77 | 1977-78 | 1976-77 | 1977-78 |
| Arabica | 2926 | 2757 | 1415 | 1360 | 483 | 493 |
| Robusta | 49718 | 48951 | 13540 | 27105 | 272 | 553 |
| Total | 52644 | 52708 | 14955 | 28465 | 284 | 550 |

Source: Coffee Board

APPENDIX 4.7

Disposal of Cases Relating to Tenancy and Kudikidappu

| Items | Tenancy | | Kudikidappu | |
|--|------------------|------------------|------------------|------------------|
| | As on 30-11-1978 | As on 30-11-1979 | As on 30-11-1978 | As on 10-11-1979 |
| 1. Total number of Applications Received | 3549591 | 3639270 | 421450 | 432275 |
| 2. Disposal of Cases | | | | |
| (i) Allowed | 2333299 | 2430979 | 259571 | 265412 |
| (ii) Rejected | 717716 | 741300 | 141210 | 144911 |
| (iii) Other Disposals | 417197 | 425333 | 18730 | 19007 |
| (iv) Total | 3523212 | 3597617 | 419561 | 429230 |
| 3. Balance to be Disposed of | 26179 | 11653 | 1899 | 3045 |
| 4. No of Certificates of Purchase Issued | 2318236 | 2395362 | 245076 | 249996 |

Source: Land Board, Kerala.

APPENDIX 4.6

Production, Import, Export and Consumption of Rubber in India

(in '000 tonnes)

| Item | 1975-76 | 1976-77 | 1977-78 | 1978-79 |
|--------------------------|--------------|--------------|--------------|--------------|
| 1. Production | | | | |
| Natural Rubber | 137.8 | 149.6 | 146.9 | 135.2 |
| Synthetic Rubber | 25.1 | 23.2 | 27.2 | 28.1 |
| 2. Import | | | | |
| Natural Rubber | .. | .. | .. | 14.7 |
| Synthetic Rubber | 5.9 | 7.7 | 8.8 | 10.6 |
| 3. Export | | | | |
| Natural Rubber | .. | 12.3 | 11.1 | Nil |
| Consumption | | | | |
| Natural Rubber | 125.7 | 137.6 | 145.0 | 161.5 |
| Synthetic Rubber | 32.5 | 33.7 | 34.8 | 37.6 |
| Reclaimed Rubber | 19.3 | 20.9 | 21.7 | 21.3 |
| Total Consumption | 177.5 | 192.2 | 201.5 | 226.4 |

Source: Rubber Board

APPENDIX 4.8

Distribution of Surplus Land

| Item | As on 31-12-1978 | As on 31-12-1979 |
|--|------------------|------------------|
| (1) | (2) | (3) |
| 1. Total Ceiling returns filed (No) | 61851 | 64147 |
| 2. Total Ceiling returns decided (No) | 55592 | 60313 |
| 3. Balance to be decided (No) | 5259 | 3834 |
| 4. Area ordered to be surrendered (Acres) | 140354 | 146146 |
| 5. Area reduced on orders of High Court (Acre) | 25883 | 30386 |
| 6. Net extent of land ordered for surrender (Acre) | 114471 | 116060 |
| 7. Extent of land taken over (Acres) | 71183 | 75332 |
| 8. Area reconveyed on orders of High Court (Acres) | 2204 | 2621 |
| 9. Net extent taken over | 68934 | 73211 |
| 10. Balance extent to be taken over (Acre) | 45137 | 42349 |
| (i) Covered by stay against taking possession | 28581 | 26115 |
| (ii) Not to be taken over due to gift, dispute etc. | 14305 | 15034 |
| (iii) Extent available for taking over | 2651 | 1700 |
| 11. Surplus land distributed (Acres) | 44933 | 47874 |
| 12. Balance Extent taken over pending distribution (Acres) | 23936 | 24348 |
| (i) Covered by stay against assignment | 3053 | 3279 |
| (ii) Not distributed due to gift, vested forest etc. | 5301 | 5002 |
| (iii) Reserved for public purposes (Acres) | 13753 | 14535 |
| (iv) Available for distribution (Acres) | 1879 | 1532 |

Source: Land Board, Kerala

APPENDIX 4.9

Implementation of KLR Act—District-wise Progress as on 31-11-1979

| District | Tenancy | | | | Kudikidappa | | | |
|--------------|--------------------|-----------------|----------------|---------------------------------|--------------------|-----------------|---------------|---------------------------------|
| | Applications filed | Total Disposals | Cases Allowed | Certificates of Purchase issued | Applications filed | Total Disposals | Cases Allowed | Certificates of Purchase issued |
| Trivandrum | 24068 | 23999 | 6801 | 6774 | 34381 | 34240 | 17850 | 11553 |
| Quilon | 79308 | 79124 | 50775 | 48437 | 22520 | 22391 | 10271 | 10154 |
| Alleppey | 80885 | 80829 | 34653 | 34653 | 111224 | 109831 | 764666 | 75912 |
| Kottayam | 131667 | 131445 | 80954 | 80112 | 32230 | 32130 | 20442 | 19523 |
| Idukki | 8051 | 8019 | 4515 | 4297 | 1384 | 1379 | 643 | 635 |
| Ernakulam | 180343 | 180019 | 102035 | 101374 | 100847 | 100267 | 58953 | 56013 |
| Trichur | 391747 | 388098 | 272786 | 261257 | 54181 | 53951 | 37721 | 36311 |
| Palghat | 542398 | 539779 | 391474 | 384780 | 639 | 639 | 237 | 189 |
| Malappuram | 619138 | 580730 | 413829 | 407423 | 22988 | 22790 | 16771 | 15441 |
| Kozhikode | 854507 | 831700 | 522746 | 517009 | 35497 | 35308 | 17784 | 16110 |
| Cannanore | 754802 | 753875 | 550411 | 549246 | 16384 | 16304 | 8274 | 8153 |
| Total | 3609270 | 3597617 | 2430979 | 2395362 | 432275 | 429230 | 265412 | 249996 |

Source: Land Board, Kerala

APPENDIX 4.10

Implementation of Ceiling Provisions—District-wise Progress as on 31-12-1979

| District | Net Extent of Land ordered for Surrender | Net Extent of Land Taken Over | Extent of Land Distributed | | | | No. of Families Benefited | | | |
|--------------|--|-------------------------------|----------------------------|------------------|--------------|--------------|---------------------------|------------------|--------------|--------------|
| | | | Scheduled Castes | Scheduled Tribes | Others | Total | Scheduled Castes | Scheduled Tribes | Others | Total |
| Cannanore | 39187 | 29809 | 3205 | 2111 | 8602 | 15744 | 3480 | 2328 | 9519 | 15323 |
| Calicut | 8646 | 5676 | 938 | 1314 | 1531 | 3786 | 2165 | 1793 | 3440 | 7399 |
| Malappuram | 10680 | 5999 | 2251 | 6 | 2688 | 4945 | 3035 | 7 | 3511 | 6553 |
| Palghat | 21532 | 10895 | 3913 | 703 | 4401 | 9017 | 5312 | 835 | 5733 | 11680 |
| Trichur | 5788 | 3433 | 1021 | .. | 1672 | 2694 | 3848 | .. | 7041 | 10889 |
| Ernakulam | 3144 | 1265 | 521 | 3 | 269 | 793 | 2189 | 10 | 1324 | 3522 |
| Kottayam | 5303 | 4004 | 1167 | .. | 1818 | 2985 | 2029 | .. | 2887 | 4916 |
| Idukki | 8281 | 5133 | 1013 | 14 | 1636 | 2663 | 1103 | 17 | 1756 | 2876 |
| Alleppey | 8500 | 4591 | 1492 | .. | 1934 | 3426 | 2259 | .. | 2641 | 4900 |
| Quilon | 9791 | 1804 | 733 | .. | 710 | 1443 | 1942 | .. | 1904 | 3846 |
| Trivandrum | 1206 | 600 | 188 | .. | 194 | 382 | 1650 | .. | 1729 | 3381 |
| Total | 116058 | 73209 | 16442 | 4151 | 25455 | 47878 | 29012 | 4990 | 41479 | 75484 |

Source: Land Board, Kerala

*APPENDIX 4.11

Livestock Population in Kerala

| Item | Number in thousands as per | | | | | | | |
|-----------------------------------|----------------------------|----------------|----------------|----------------|----------------|-------------|----------|--------|
| | 1951 Census | 1956 Census | 1961 Census | 1966 Census | 1972 Census | 1977 Census | | |
| | | | | | | Desi | Improved | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Cattle: | | | | | | | | |
| (a) Males over 3 years: | | | | | | | | |
| (1) Breeding bulis | 7.8 | 11.0 | 11.2 | 6.9 | 4.8 | 2.3 | 1.2 | 3.5 |
| (2) Working bullocks | 571.3 | 553.2 | 531.9 | 503.7 | 382.5 | 344.0 | 19.5 | 363.5 |
| (3) Not used for breeding or work | 36.8 | 37.7 | 26.1 | 8.9 | 4.3 | 3.7 | 0.4 | 4.1 |
| Total | 615.9 | 601.9 | 569.2 | 519.5 | 391.6 | 350.0 | 21.1 | 371.1 |
| (b) Females over 3 years: | | | | | | | | |
| (1) Breeding cows (a) in milk | 316.5 | 396.4 | 434.5 | 483.4 | 606.2 | 334.3 | 370.8 | 705.1 |
| (b) dry & not calved | 569.1 | 575.3 | 644.6 | 727.0 | 680.7 | 345.9 | 314.3 | 660.2 |
| (2) Working cows | 3.9 | 7.1 | 14.3 | 3.6 | 7.6 | 2.3 | 0.2 | 2.5 |
| (3) Not used for breeding or work | 13.7 | 19.2 | 39.4 | 5.2 | 5.7 | 2.4 | 0.7 | 3.1 |
| Total | 903.2 | 998.0 | 1132.8 | 1219.2 | 1300.2 | 684.9 | 686.0 | 1370.9 |
| (c) Young stock | 665.8 | 910.5 | 984.4 | 1118.0 | 1164.6 | 616.3 | 647.7 | 1264.0 |
| Total Cattle | 2184.9 | 2510.4 | 2686.7 | 2856.7 | 2856.4 | 1651.2 | 1354.8 | 3006.0 |
| Buffaloes | | | | | | | | |
| (a) Males over 3 years : | | | | | | | | |
| (1) Breeding | 3.2 | 4.0 | 3.1 | 1.1 | 2.2 | .. | .. | 1.8 |
| (2) Working | 252.7 | 247.3 | 268.2 | 246.1 | 220.1 | .. | .. | 214.5 |
| (3) Not used for breeding or work | 11.3 | 5.9 | 6.6 | 6.7 | 3.4 | .. | .. | 2.5 |
| Total | 267.2 | 257.2 | 277.9 | 253.9 | 225.7 | .. | .. | 218.8 |
| (b) Females over 3 years : | | | | | | | | |
| (1) Breeding | | | | | | | | |
| (a) in milk | 53.4 | 61.3 | 60.6 | 66.7 | 83.2 | .. | .. | 86.7 |
| (b) dry & not calved | 60.3 | 63.8 | 61.6 | 61.9 | 64.2 | .. | .. | 64.6 |
| (2) Used for work | 9.6 | 10.1 | 8.2 | 4.6 | 6.0 | .. | .. | 5.0 |
| (3) Not used for breeding or work | 3.3 | 3.3 | 5.8 | 1.6 | 2.4 | .. | .. | 1.2 |
| Total | 126.6 | 138.5 | 136.2 | 134.8 | 155.8 | .. | .. | 157.5 |
| (c) Young stock | 73.5 | 91.9 | 71.3 | 82.6 | 90.2 | .. | .. | 78.0 |
| Total buffaloes | 467.3 | 487.6 | 485.4 | 471.3 | 471.7 | .. | .. | 454.4 |
| Sheep | 432.2 | 97.2 | 36.2 | 11.5 | 10.3 | .. | .. | 2.5 |
| Goats | 412.8 | 955.6 | 1252.1 | 1189.2 | 1467.7 | .. | .. | 1683.3 |
| Figs | 124.7 | 113.7 | 146.5 | 111.9 | 129.1 | .. | .. | 172.4 |
| Others | 1.8 | 3.1 | .. | 0.4 | 1.3 | .. | .. | 0.4 |
| Total Livestock | 3623.6 | 4168.2 | 4606.8 | 4641.0 | 4936.5 | .. | .. | 5319.0 |

* Includes both breeding bulls and working bulls.

APPENDIX 4.12
District-wise Distribution of Livestock & Poultry in Kerala, Population as per 1977 Livestock Census

| Category of Livestock | Trivandrum | Quilon | Alleppey | Kottayam | Idukki | Ernakulam | Trichur | Palghat | Malappuram | Kozhikode | Cannanore | Total |
|---------------------------|------------|--------|----------|----------|--------|-----------|---------|---------|------------|-----------|-----------|---------|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| 1. Cattle male : | | | | | | | | | | | | |
| Desi | 17955 | 51769 | 25554 | 32104 | 20008 | 67163 | 45592 | 79514 | 65181 | 54394 | 82901 | 596015 |
| Improved | 12061 | 25765 | 23016 | 26999 | 16047 | 26158 | 14294 | 19288 | 16165 | 13131 | 23707 | 216631 |
| 2. Cattle Female : | | | | | | | | | | | | |
| Desi | 63393 | 153597 | 143340 | 109833 | 62918 | 100010 | 75947 | 96503 | 52414 | 319216 | 186587 | 1115158 |
| Improved | 83689 | 190370 | 165957 | 124601 | 69189 | 104112 | 84892 | 69619 | 51210 | 69094 | 125522 | 1138255 |
| Desi | 81348 | 205366 | 168894 | 141937 | 82926 | 167173 | 120879 | 170017 | 117595 | 173550 | 221488 | 1651179 |
| Total Improved | 95750 | 216195 | 188973 | 151600 | 85236 | 130270 | 99186 | 88907 | 67375 | 82225 | 149229 | 1354886 |
| 3. Buffaloe : | | | | | | | | | | | | |
| Male | 13938 | 11856 | 4632 | 3277 | 4601 | 17484 | 28586 | 91524 | 40821 | 13535 | 29562 | 259816 |
| Female | 25535 | 17824 | 6516 | 6542 | 11512 | 11206 | 29128 | 35525 | 23170 | 11943 | 22283 | 200584 |
| Total | 39473 | 29680 | 11148 | 9819 | 16113 | 28690 | 57714 | 127049 | 63991 | 24878 | 45845 | 454400 |
| 4. Sheep | .. | 91 | .. | 23 | 138 | .. | .. | 2237 | 4 | 39 | 14 | 2346 |
| 5. Goats | 156493 | 208150 | 116355 | 162760 | 89093 | 156280 | 162763 | 138672 | 169658 | 151760 | 171313 | 1683297 |
| 6. Pigs | 11644 | 2523 | 509 | 55727 | 39643 | 22720 | 1985 | 1378 | 77 | 9053 | 27116 | 172375 |
| 7. Others | 23 | .. | 2 | 20 | 36 | .. | 3 | 245 | 9 | 17 | 1 | 356 |
| 8. Total Livestock | 384731 | 661945 | 485881 | 521886 | 313885 | 505133 | 442530 | 528505 | 418709 | 441522 | 615006 | 5319033 |
| 9. Poultry Cocks : | | | | | | | | | | | | |
| Desi | 58670 | 68682 | 76578 | 75094 | 38665 | 103616 | 89998 | 99849 | 124436 | 104619 | 94581 | 977838 |
| Improved | 79996 | 99633 | 100070 | 84000 | 42777 | 111088 | 96809 | 72862 | 231498 | 78107 | 97874 | 994774 |
| Total | 138666 | 168375 | 176648 | 159094 | 81442 | 214704 | 186807 | 166711 | 255934 | 182726 | 192455 | 1922562 |
| 10. Hens : | | | | | | | | | | | | |
| Desi | 259311 | 368869 | 419669 | 331336 | 164262 | 365945 | 313101 | 236999 | 300161 | 221861 | 289368 | 3267782 |
| Improved | 400071 | 534951 | 646851 | 362191 | 182792 | 404860 | 333150 | 182560 | 300976 | 255202 | 300624 | 3803728 |
| Total | 659382 | 901320 | 966520 | 693527 | 347054 | 770205 | 646251 | 419559 | 601137 | 477063 | 589992 | 7071510 |

11. Chickens :

| | | | | | | | | | | | | |
|-----------------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|----------|
| Desi | 127842 | 121093 | 175900 | 129250 | 85413 | 215782 | 196987 | 219258 | 244803 | 191193 | 174809 | 1881730 |
| Improved | 188383 | 188697 | 227925 | 151080 | 99321 | 243958 | 218453 | 179851 | 251663 | 155607 | 175366 | 2080334 |
| Total | 316225 | 309790 | 403225 | 280330 | 184734 | 459740 | 415470 | 399109 | 496466 | 346800 | 350175 | 3962064 |
| 12. Total Fowls | | | | | | | | | | | | |
| Desi | 445823 | 556144 | 671547 | 535680 | 288340 | 684743 | 599086 | 550106 | 669450 | 517673 | 558758 | 6077350 |
| Improved | 668450 | 823341 | 874346 | 597271 | 324890 | 759906 | 648442 | 435273 | 684137 | 488916 | 573864 | 6878836 |
| Total | 1114273 | 1379485 | 1545893 | 1132951 | 613230 | 1444649 | 1247528 | 985379 | 1353537 | 1006589 | 1132622 | 12956136 |
| Ducks : | | | | | | | | | | | | |
| Male | 2349 | 3658 | 22098 | 8276 | 2992 | 16807 | 5263 | 3636 | 2375 | 3660 | 2606 | 73720 |
| Female | 5335 | 16104 | 137519 | 42384 | 6699 | 89128 | 25427 | 14653 | 6409 | 7524 | 4467 | 355849 |
| Total Ducks | 7884 | 19762 | 159617 | 50660 | 9691 | 105935 | 30690 | 18289 | 8784 | 11184 | 7073 | 429569 |
| Other Poultry | 248 | 62 | 261 | 476 | 283 | 355 | 106 | 724 | 61 | 377 | 142 | 3095 |
| Total Poultry | 1122405 | 1399309 | 1705771 | 1184087 | 623204 | 1550939 | 1278924 | 1004392 | 1362382 | 1018150 | 1139837 | 13368800 |

APPENDIX 4.13

Principal Species of Marine Fish Catches (Kerala)

| Species | (Quantity in Tonnes) | | | | | | | | | | | |
|-----------------------------------|----------------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|----------------|--------------|---------------------|--------------|
| | 1974 | | 1975 | | 1976 | | 1977 | | 1978 | | Average for 1974-78 | |
| | Actual | % | Actual | % | Actual | % | Actual | % | Actual | % | Actual | % |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1. Elasmobranchs | 10,338 | 2.5 | 10,292 | 2.4 | 7,308 | 2.2 | 5,796 | 1.7 | 9,302 | 2.5 | 8,607 | 2.3 |
| 2. Cat Fishes | 33,526 | 8.0 | 32,603 | 7.8 | 12,743 | 4.0 | 7,947 | 2.3 | 9,125 | 2.4 | 19,169 | 5.1 |
| 3. Chirocentrus | .. | .. | .. | .. | 807 | 0.2 | 547 | 0.2 | 1,298 | 0.4 | 531 | 0.1 |
| 4. (a) Oil Sardine | 102,135 | 24.3 | 97,183 | 23.1 | 123,937 | 37.4 | 117,356 | 34.0 | 119,937 | 32.1 | 112,110 | 29.7 |
| (b) Other Sardine | 31,335 | 7.2 | 33,652 | 8.0 | 34,305 | 10.4 | 20,804 | 6.0 | 11,713 | 3.1 | 26,362 | 7.0 |
| 5. Anchoviella | 19,463 | 4.6 | 11,432 | 2.7 | 9,987 | 3.0 | 10,105 | 2.9 | 21,203 | 5.7 | 14,438 | 3.8 |
| 6. Thrissodes and other Clupeoids | 2,644 | 0.6 | 2,636 | 0.6 | 3,906 | 1.2 | 2,160 | 0.6 | 2,871 | 0.8 | 2,844 | 0.8 |
| 7. Perches | 20,970 | 5.0 | 14,741 | 3.4 | 3,069 | 1.0 | 14,121 | 4.1 | 24,989 | 6.7 | 15,578 | 4.1 |
| 8. Red Mullet | 3,881 | 1.0 | .. | .. | 2,577 | 0.8 | 240 | 0.1 | 171 | 0.0 | 1,374 | 0.4 |
| 9. Sciaenids | 9,220 | 2.2 | 16,811 | 4.0 | 6,955 | 2.1 | 11,965 | 3.5 | 13,045 | 3.5 | 11,599 | 3.1 |
| 10. Ribbon Fish | 30,192 | 7.2 | 15,175 | 3.6 | 7,687 | 2.3 | 7,440 | 2.2 | 24,207 | 6.5 | 16,340 | 4.5 |
| 11. Caranx | 5,256 | 1.3 | 7,190 | 1.8 | 10,478 | 3.2 | 16,484 | 4.8 | 7,197 | 1.9 | 9,321 | 2.5 |
| 12. Leiognathus | 17,518 | 4.2 | 5,211 | 1.2 | 2,727 | 0.8 | 7,708 | 2.2 | 3,040 | 0.8 | 7,241 | 1.9 |
| 13. Lactarius | 2,904 | 0.7 | 983 | 0.2 | 468 | 0.1 | 823 | 0.2 | 1,533 | 0.5 | 1,342 | 0.3 |
| 14. Pomfrets | 1,500 | 0.4 | 1,181 | 0.5 | 799 | 0.2 | 3,712 | 1.1 | 1,614 | 0.4 | 1,761 | 0.5 |
| 15. Mackerel | 10,335 | 2.5 | 14,930 | 3.6 | 19,978 | 6.0 | 19,968 | 5.8 | 25,917 | 6.9 | 18,226 | 4.8 |
| 16. Seer Fish | 4,909 | 1.2 | 4,065 | 1.0 | 5,936 | 1.8 | 3,250 | 0.9 | 3,354 | 0.9 | 4,303 | 1.1 |
| 17. Tunnies | 5,927 | 1.4 | 5,845 | 1.3 | 12,880 | 3.9 | 6,705 | 1.9 | 6,548 | 1.8 | 7,581 | 2.0 |
| 18. Soles | 12,771 | 3.0 | 6,932 | 1.7 | 3,567 | 1.0 | 5,778 | 1.7 | 7,276 | 1.9 | 7,265 | 1.9 |
| 19. (a) Penaeid Prawns | 59,815 | 14.2 | 77,207 | 18.3 | 34,478 | 10.4 | 40,150 | 11.6 | 45,034 | 12.1 | 51,337 | 13.4 |
| (b) Non-penaeid Prawns | 1,014 | 0.2 | 755 | 0.1 | 55 | .. | 174 | 0.1 | 394 | 0.1 | 479 | 0.1 |
| (c) Lobster | .. | .. | .. | .. | 50 | .. | 40 | .. | 38 | 0.0 | 26 | 0.0 |
| (d) Other Crustaceans | .. | .. | .. | .. | 1,316 | 0.4 | 4,621 | 1.3 | 2,176 | 0.6 | 1,623 | 0.4 |
| 20. Cephalopods | .. | .. | .. | .. | 872 | 0.3 | 4,973 | 1.5 | 6,516 | 1.7 | 2,372 | 0.6 |
| 21. Miscellaneous | 34,604 | 8.3 | 62,012 | 14.7 | 24,162 | 7.3 | 32,170 | 9.3 | 24,841 | 6.7 | 35,554 | 9.4 |
| Total | 420,257 | 100.0 | 420,836 | 100.0 | 331,047 | 100.0 | 345,037 | 100.0 | 373,339 | 100.0 | 378,103 | 100.0 |

APPENDIX 4.14

Fishermen Co-operatives in Kerala

| Category | 1976-77 | | | 1977-78 | | | 1978-79 | | |
|---|------------------|---------------|-----------------------------|------------------|---------------|-----------------------------|------------------|---------------|-----------------------------|
| | No. of Societies | Membership | Paid up Capital (Rs. lakhs) | No. of Societies | Membership | Paid up Capital (Rs. lakhs) | No. of Societies | Membership | Paid up Capital (Rs. lakhs) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| Credit Societies | 132 | 25,140 | 6.08 | 127 | 24,245 | 8.58 | 96 | 19,876 | 8.88 |
| MUCS | 618 | 54,713 | 19.36 | 575 | 48,937 | 8.70 | 492 | 43,434 | 17.39 |
| Regional Marketing Societies (including Marketing Federation) | 18 | 1,640 | 52.15 | 18 | 1,682 | 35.80 | 17 | 1,957 | 38.05 |
| Total | 468 | 81,493 | 77.59 | 720 | 74,864 | 53.08 | 605 | 65,267 | 64.32 |

APPENDIX 4.15

Beach Prices of Marine Fish in Kerala (1978-79)

| Species | Price in the Beach (Rs./kg.) |
|------------------------|---------------------------------|
| 1. Elasmobranchs | 1.18 |
| 2. Cat Fish | 1.26 |
| 3. Chirocantrus | 1.30 |
| 4. (a) Oil Sardine | 0.89 |
| (b) Other Sardine | 0.97 |
| 5. Sciaenide | 1.10 |
| 6. Carangids | 0.65 |
| 7. Leiognathus | 0.66 |
| 8. Lactarius | 2.15 |
| 9. Pomfrets | 3.67 |
| 10. Mackerel | 1.66 |
| 11. Seer Fish | 4.63 |
| 12. Tunnies | 3.00 |
| 13. Soles | 0.73 |
| 14. Cephalopods | 1.71 |
| 15. Miscellaneous | 1.20 |
| 16. (a) Prawn (Naran) | } 9.21 |
| (b) Prawn (Poovalan) | |
| (c) Prawn (Karikkadi) | |
| (d) Prawn (Kazhanthan) | |

APPENDIX 4.16

Division-wise Area of Forests in Kerala (1978)

| Division | Forest Area in Hectares as on 31-3-1978 |
|----------------------------------|--|
| 1. Trivandrum | 57,076 |
| 2. Thenmala | 56,762 |
| 3. Punalur | 28,005 |
| 4. Konni | 34,040 |
| 5. Ranni | 105,746 |
| 6. Kottayam | 73,082 |
| 7. Malayattur | 68,049 |
| 8. Munnar | 89,737 |
| 9. Chalakudy | 85,590 |
| 10. Trichur | 52,342 |
| 11. Wild Life Division, Thekkady | 77,700 |
| 12. Nennmara | 48,407 |
| 13. Nilambur | 32,469 |
| 14. Palghat | 37,317 |
| 15. Kozhikode | 42,062 |
| 16. Wynad | 45,782 |
| 17. Special Division, Kozhikode | 370 |
| Total | 9,34,536 |

Source : Chief Conservator of Forests, Kerala.

APPENDIX 4.17

Species-wise Area under Forest Plantations

| Species | Area in hectares | |
|----------------------------|--------------------|--------------------|
| | As on 31-3-1978 | As on 31-3-1979 |
| 1. Teak | 68,511 | 71,075 |
| 2. Soft wood | 21,634 | 22,362 |
| 3. Jungle wood (Hard wood) | 1,592 | 1,738 |
| 4. Cashew | 3,796 | 3,859 |
| 5. Rose wood | 79 | 93 |
| 6. Eucalyptus | 31,051 | 31,791* |
| 7. Mahagony | 242 | 242 |
| 8. Bamboo | 965 | 965 |
| 9. Wattle | 652 | 652 |
| 10. Sandal wood | 3 | 3 |
| 11. Kongu | 20 | 20 |
| 12. Balsa | 93 | 113 |
| 13. Cardamom | 41 | 41 |
| 14. Pine | 429 | 429 |
| 15. Pepper | 98 | 98 |
| 16. Mixed plantations | 1,296 | 1,290 |
| 17. Zylonicum | 4 | 4 |
| 18. Others | 1,321 | 1,456 |
| Total | 1,31,827 | 1,36,231 |

* Includes Eucalyptus planted under fuel wood plantations.

Source : Chief Conservator of Forests, Kerala.

APPENDIX 4.18

Sale Proceeds of Timber and other produce

| Item | (Rs. in '000) | |
|--|-----------------|-----------------|
| | 1977-78 | 1978-79 |
| A. Forests | | |
| 1. Timber | 2,58,344 | 2,82,206 |
| 2. Firewood and Charcoal | 15,764 | 15,185 |
| 3. Live stock | 333 | 57 |
| 4. Other items | 21,112 | 20,899 |
| Total (A) | 2,95,533 | 3,18,347 |
| B. Other receipts including interest on arrears on forest revenue, etc. | 23,047 | 33,487 |
| Grand Total (A+B) | 3,18,600 | 3,51,834 |
| Deduct Refunds | 764 | 1,215 |
| Net Total | 3,17,836 | 3,50,619 |

Source : Chief Conservator of Forests, Kerala.

APPENDIX 5.1

Growth of Kerala Power System at a Glance

| Particulars | Beginning of 1st plan as on 1-4-1951 | End of 1st plan as on 31-3-1956 | End of 2nd plan as on 31-3-1961 | End of 3rd plan as on 31-3-1966 | End of the annual plan as on 1-4-1969 | End of 4th plan as on 31-3-1974 | Fifth plan as on 31-3-1978 | As on 31-3-1979 |
|---|--------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------------|---------------------------------|----------------------------|-----------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1. Installed Capacity—MW | 36 | 85.5 | 132.5 | 192.5 | 546.5 | 621.5 | 1011.5 | 1011.5 |
| 2. Maximum Demand—MW | | | | | | | | |
| (a) System | 24.4 | 62.9 | 116.3 | 173.7 | 352.7 | 500.2 | 802.2 | 852.4 |
| (b) Internal | 24.4 | 62.9 | 116.3 | 173.7 | 277.7 | 434.4 | 551.8 | 609.2 |
| 3. Generation per Annum—MU | 151.0 | 350.0 | 591.0 | 841.9 | 1623.0 | 2510.0 | 4470.6 | 5190.2 |
| 4. Import Per Annum—MU | 16.9 | 1.5 | 56.8 | 116.0 | 19.0 | 1.2 | 1.5 | 13.6 |
| 5. Export Per Annum—MU | .. | .. | 11.6 | .. | 28.2 | 317.8 | 1505.4 | 2097 |
| 6. Energy Sales Per Annum—MU | 140.0 | 274.0 | 517.2 | 749.7 | 1366.2 | 2120.5 | 3936.7 | 4506 |
| 7. Energy Losses as a percentage of Energy Available for Sale | 14.3 | 19.7 | 17.9 | 20.2 | 15.9 | 14.8 | 11.4 | 12.8 |
| 8. Per Capita Consumption | 13.0 | 18.5 | 30 | 40 | 66 | 79 | 94.6 | 96 |
| 9. 220 KV Lines—Ct. KM. | .. | .. | .. | .. | 316.4 | 316.4 | 853.7 | 853.7 |
| 10. 110 KV Lines—Ct. KM. | .. | .. | 527 | 617 | 1068 | 1350 | 1403 | 1525 |
| 11. 66 KV Lines—Ct. KM. | 910.7 | 1070 | 1373 | 1717 | 1601 | 1711 | 1841 | 1878 |
| 12. 11 KV Lines—Ct. KM. | 1067 | 2802 | 5209 | 6327 | 7046 | 9447 | 12176 | 12645 |
| 13. L.T. Lines—Ct. KM. | 992 | 3783 | 8899 | 14189 | 16952 | 25968 | 37190 | 39793 |
| 14. Step up Transformer Capacity—MVA. | 40 | 103 | 161 | 233 | 632 | 717 | 1149.6 | 1149.6 |
| 15. No. of EHT Sub-Stations | 12 | 15 | 22 | 38 | 41 | 59 | 75 | 80 |
| 16. Step Down Transformer Capacity—MVA. | 57.5 | 85.0 | 251 | 425 | 834 | 1269 | 1762 | 2379 |
| 17. Distribution Transformers | | | | | | | | |
| (a) Nos. | 324 | 845 | 2,898 | 3930 | 4907 | 7285 | 8650 | 9029 |
| (b) Capacity—KVA. | 9,950 | 50,700 | 1,73,906 | 2,61,826 | 3,55,972 | 5,66,260 | 8,23,744 | 8,84,377 |
| 18. No. of Villages Electrified/No. of Villages | 159 | 381 | 872 | 1083 | 1137 | 1173 | 1224 | 1248 |
| 19. No. of Consumers | 28119 | 78,575 | 1,74,994 | 3,25,063 | 4,39,681 | 7,77,030 | 10,72,123 | 11,71,748 |
| 20. Connected Load—MW. | 69.6 | 142.3 | 311.3 | 509.9 | 805.5 | 1231.4 | 1713 | 1895.9 |
| 21. No. of Street Lights | 7905 | 25,489 | 82,645 | 1,06,996 | 1,44,902 | 2,73,587 | 2,84,483 | 3,02,200 |
| 22. No. of Irrigation Pumps | 191 | 893 | 4,615 | 7,007 | 13,909 | 37,611 | 58,922 | 6,6240 |
| 23. Total Revenue per Annum (Rs. lakhs) | 58.4 | 140.7 | 311.7 | 706.8 | 1165.1 | 2379 | 5176 | 7201 |

Source: Kerala State Electricity Board

APPENDIX 5.2

Financial Position of the Kerala State Electricity Board

(Rs. in lakhs)

| Item | 1976-77 | 1977-78 | 1978-79 |
|---|-----------|----------|----------|
| (1) | (2) | (3) | (4) |
| 1. Gross Revenue | 4016.66 | 5708.93 | 8421.75 |
| 2. Expenditure | 2852.74 | 4169.33 | 4797.15 |
| 3. Net Operating Surplus | 1163.92 | 1539.60 | 3624.60 |
| 4. Total Capital Investment of the Board | 3,3050.65 | 36013.15 | 38796.57 |
| 5. Total Loans Outstanding | 27277.14 | 29125.31 | 31099.66 |
| 6. Loans Raised During the year | 2289.41 | 2067.37 | 2212.54 |
| 7. Loans Repaid During the Year | 384.92 | 219.20 | 238.19 |
| 8. Total Interest Payable | 1672.18 | 1800.30 | 1946.37 |
| 9. Interest available for repayment during the year | 1347.95 | 1885.47 | 4161.59 |

Note 1.—During the years 1976-77, 1977-78, & 1978-79 sum of Rs. 326 lakhs Rs. 500 lakhs and Rs. 537 lakhs respectively has been received from State Government towards subsidy. This subsidy has not been taken into account in furnishing the gross revenue (Item-1). But for the purpose of appropriation of interest charges (Item-9) the subsidy element has also been reckoned.

2. Capital investment of the Board represents long term loans plus free reserves.

Source: Kerala State Electricity Board.

APPENDIX 5.3

Consumption of Power and Revenue Collected (Internal) (1978-79)

| Category | No. of consumers as on 31-3-1979 | Connected load as on 31-3-1979 MW | Energy Consumed | | Revenue Collected | |
|--------------------------------------|----------------------------------|-----------------------------------|-----------------|---------------------|-------------------|---------------------|
| | | | Million KWh | Percentage to total | Rs. lakhs | Percentage to total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. Domestic Lights & Fans | 829218 | 532.3 | 280.2 | 11.6 | 871.8 | 20.5 |
| 2. Domestic Heat & Small Power | .. | .. | .. | .. | .. | .. |
| 3. Commercial lights and Fans | 231154 | 158.2 | 125.8 | 5.2 | 536.5 | 12.6 |
| 4. Commercial Heat & Small Power | 12666 | | 17.1 | 0.7 | 56.2 | 1.3 |
| 5. Industrial (Low & Medium Voltage) | 30008 | 340.9 | 196.1 | 8.2 | 385.7 | 9.1 |
| 6. Industrial High Voltage + Extra | 570 | 553.0 | 1542.9 | 64.0 | 1880.9 | 44.2 |
| 7. High Voltage Irrigation | 66240 | 221.1 | 82.3 | 3.4 | 216.9 | 5.1 |
| 8. Public Lighting | 1395 | 13.6 | 33.2 | 1.4 | 126.1 | 3.0 |
| 9. Water Works and Sewage Pumping | 472 | 11.8 | 29.7 | 1.2 | 47.8 | 1.1 |
| 10. Bulk Supply to Licences | 5 | 65.0 | 102.2 | 4.3 | 134.2 | 3.1 |
| Total | 11,71,728 | 1895.9 | 2409.5 | 100.00 | 4256.1 | 100.0 |

Source: Kerala State Electricity Board.

4/860/MC.

APPENDIX 5.4

Total quantity of Power Sold and Receipts by the Sale of Electricity

| Particulars of receipts | During 1976-77 | | | During 1977-79 | | | During 1978-79 | | |
|--|---------------------|------------------|--------------------------------|---------------------|------------------|-------------------------------|---------------------|------------------|--------------------------------|
| | Power sold in MKWH. | Income Rs. lakhs | Average Revenue per KWH. paise | Power sold in MKWH. | Income Rs. lakhs | Average revenue per KWH paise | Power sold in MKWH. | Income Rs. lakhs | Average revenue per KWH. paise |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| I. Domestic | | | | | | | | | |
| (a) Lights & Fans | 222.9 | 537.3 | 24.1 | 250.0 | 605.27 | 24.1 | 280.2 | 871.8 | 31.1 |
| (b) Small Power | | | | | | | | | |
| II. Commercial | | | | | | | | | |
| a) Lights & Fans | 120.5 | 474.0 | 39.3 | 130.5 | 524.43 | 40.2 | 142.9 | 592.7 | 41.5 |
| (b) Small Power | | | | | | | | | |
| III. Industrial | | | | | | | | | |
| (a) Low & Medium Voltage | 183.6 | 343.6 | 18.7 | 183.9 | 355.66 | 19.3 | 196.1 | 325.7 | 19.7 |
| (b) High Voltage & EHV. | 1365.9 | 1014.3 | 7.4 | 1537.0 | 1262.28 | 8.2 | 1542.9 | 1680.9 | 12.2 |
| IV. Public Lighting | 34.2 | 231.8 | 67.8 | 36.3 | 145.52 | 40.1 | 33.2 | 126.1 | 38.0 |
| V. Irrigation- Agricultural Watering | 102.6 | 122.0 | 11.9 | 78.5 | 114.36 | 14.6 | 82.3 | 215.9 | 26.2 |
| VI. Public Water Works & Sewage Pumping | 23.4 | 37.7 | 16.1 | 25.8 | 43.24 | 16.8 | 29.7 | 47.8 | 16.1 |
| VII. Bulk Supply (Licences) | 84.3 | 92.6 | 11.0 | 89.4 | 112.96 | 12.6 | 102.2 | 134.2 | 13.1 |
| VIII. Total Sale to Neighbouring States | 555.3 | 679.1 | 12.2 | 1605.4 | 2012.18 | 12.5 | 2097.2 | 2946.0 | 14.0 |
| Total | 2692.7 | 3532.4 | 13.1 | 3936.8 | 5175.89 | 13.1 | 4506.7 | 7201.1 | 16.0 |

Source: Kerala State Electricity Board.

APPENDIX 6.1

District-wise Distribution of Working Factories and Employment in Kerala for the Year Ending 31-12-1978

| 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) |
| Total | 303 | 17191 | 787 | 115615 | 580 | 15325 | 619 | 7929 | 114 | 4328 | 1249 | 37689 | 876 | 19396 | 816 | 10904 | 169 | 2454 | 1172 | 22588 | 1099 | 18978 | 7784 | 272397 |
| Oil | 18 | 86 | 31 | 155 | 51 | 423 | 16 | 79 | 7 | 45 | 44 | 234 | 81 | 510 | 10 | 62 | 6 | 51 | 48 | 302 | 17 | 122 | 329 | 2069 |
| Tea | 5 | 141 | 6 | 147 | .. | .. | 1 | 49 | 70 | 3610 | 5 | 33 | 1 | 77 | 3 | 112 | 1 | 22 | 11 | 667 | 4 | 146 | 107 | 5004 |
| Cashew | 13 | 7969 | 213 | 103519 | 5 | 5171 | .. | .. | .. | .. | 2 | 417 | 5 | 2759 | .. | .. | .. | .. | 2 | 903 | 3 | 1291 | 243 | 122029 |
| Cotton Textiles | 1 | 94 | 1 | 9 | 1 | 2 | .. | .. | .. | .. | 1 | 3 | .. | .. | 9 | 43 | .. | .. | 8 | 577 | 97 | 1321 | 118 | 2049 |
| Coir | 4 | 76 | 5 | 107 | 200 | 3204 | 3 | 52 | .. | .. | 19 | 326 | 7 | 41 | .. | .. | 5 | 45 | 38 | 580 | 9 | 87 | 290 | 4518 |
| Plywood spints & Veneers | 10 | 176 | 33 | 978 | 16 | 544 | 20 | 933 | 3 | 66 | 29 | 833 | 31 | 801 | 48 | 1064 | 15 | 236 | 90 | 1631 | 50 | 2406 | 345 | 9668 |
| Saw Mills | 15 | 89 | 79 | 448 | 39 | 175 | 60 | 335 | .. | .. | 185 | 1287 | 117 | 710 | 113 | 563 | 44 | 264 | 120 | 1416 | 86 | 965 | 858 | 6252 |
| Printing & Publishing Rubber & Rubber Products | 39 | 1277 | 35 | 255 | 32 | 236 | 77 | 626 | 4 | 29 | 104 | 1219 | 60 | 1007 | 35 | 531 | 9 | 57 | 66 | 670 | 47 | 319 | 508 | 6226 |
| Chemicals & Chemicals Products | 30 | 98 | 39 | 411 | 16 | 136 | 126 | 1579 | 14 | 134 | 45 | 367 | 37 | 301 | 16 | 102 | 18 | 185 | 47 | 301 | 24 | 81 | 412 | 3695 |
| Matches | 9 | 1007 | 5 | 107 | 13 | 441 | 15 | 360 | 1 | 9 | 34 | 6681 | 13 | 262 | 10 | 217 | 3 | 480 | 16 | 250 | 3 | 29 | 122 | 9843 |
| Soaps | 9 | 108 | 23 | 272 | 11 | 109 | 3 | 46 | .. | .. | 3 | 76 | 21 | 218 | 8 | 197 | 3 | 57 | 26 | 339 | 3 | 35 | 110 | 1457 |
| Tiles | 1 | 5 | 3 | 35 | 3 | 27 | 2 | 5 | .. | .. | 12 | 1163 | 2 | 81 | .. | .. | .. | .. | 17 | 488 | 3 | 58 | 43 | 1862 |
| General Engineering | 1 | 37 | 47 | 1776 | 5 | 118 | 16 | 140 | .. | .. | 29 | 569 | 135 | 3954 | 11 | 550 | 5 | 167 | 32 | 3025 | 9 | 693 | 290 | 11029 |
| Automobiles | 12 | 573 | 20 | 452 | 18 | 149 | 25 | 266 | 3 | 104 | 96 | 3136 | 51 | 447 | 29 | 329 | 6 | 46 | 57 | 531 | 29 | 164 | 346 | 6197 |
| Others | 30 | 1347 | 20 | 317 | 19 | 517 | 46 | 573 | 3 | 38 | 72 | 1089 | 33 | 405 | 38 | 276 | 12 | 66 | 102 | 1106 | 74 | 543 | 449 | 6277 |
| | 106 | 4108 | 227 | 6627 | 151 | 4073 | 209 | 2886 | 9 | 293 | 569 | 20256 | 282 | 7823 | 486 | 6858 | 42 | 778 | 492 | 9802 | 641 | 10718 | 3214 | 74222 |

APPENDIX 6.2
Government Owned Companies—Main Features

| Name of company | (Rs. in lakhs) | | | | | | | | | | | | | | | | | | |
|--|-----------------|---------|---------|-------------------------|---------|---------|-----------------|---------|---------|---------------------|---------|---------|--------------|---------|---------|------------------|----------------|---------------|-------|
| | Paid up capital | | | Persons Employed (Nos.) | | | Net Profit/Loss | | | Value of production | | | Sales during | | | Sales in 1978-79 | | | |
| | 1977-78 | 1978-79 | 1978-79 | 1977-78 | 1978-79 | 1978-79 | 1977-78 | 1978-79 | 1978-79 | 1977-78 | 1978-79 | 1978-79 | 1977-78 | 1978-79 | 1978-79 | Within Kerala | Outside Kerala | Outside India | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | | | | | |
| 1. Kerala Ceramics Ltd. | 107.95 | 107.95 | 639 | 611(-) | 53.51 | (-) | 46.53 | 81.35 | 85.34 | 100.47 | 8.07 | 69.46 | 22.94 | 100.47 | | | | | |
| 2. Kerala Electrical & Allied Engineering Company Ltd. | 105.82 | 105.82 | 554 | 554(-) | 44.11 | (-) | 42.68 | 178.30 | 262.82 | 253.63 | 160.39 | 93.18 | 0.06 | 253.63 | | | | | |
| 3. Kerala Minerals & Metals Ltd. | 204.05 | 204.05 | 431 | 435(+) | 9.16 | (+) | 10.70 | 63.61 | 69.68 | 64.37 | 14.34 | 48.08 | 1.95 | 64.37 | | | | | |
| 4. Kerala Premopipe Factory Ltd. | 19.50 | N.A. | 311 | N.A. | (+) | 9.36 | N.A. | 51.88 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | | | | | |
| 5. Kerala Soaps & Oils Ltd. | 149.97 | 149.97 | 420 | 420(-) | 16.26 | (+) | 0.36 | 197.34 | 321.68 | 268.82 | 150.82 | 118.00 | Nil. | 268.82 | | | | | |
| 6. Kerala State Drugs & Pharmaceuticals Ltd. | 45.00 | 85.00 | 280 | 282 | (+) | 4.45 | (+) | 2.26 | 135.26 | 220.40 | 273.62 | 10.37 | Nil. | 273.62 | | | | | |
| 7. Sitaram Textiles Ltd. | 188.00 | N.A. | 63 | N.A. | (+) | 0.66 | N.A. | 34.73 | N.A. | 43.09 | N.A. | N.A. | N.A. | N.A. | | | | | |
| 8. Travancore Plywood Industries Ltd. | 48.58 | 48.58 | 506 | 499 | (-) | 10.69 | (-) | 9.70 | 154.34 | 141.12 | 144.81 | 48.35 | 2.50 | 144.81 | | | | | |
| 9. Trivandrum Rubber Works Ltd. | 57.70 | 168.69 | 416 | 402 | (-) | 59.19 | (-) | 49.35 | 109.09 | 183.79 | 168.77 | Nil. | Nil. | 168.77 | | | | | |
| 10. Trivandrum Spinning Mills Ltd. | 65.45 | 65.86 | 539 | 537 | (-) | 14.24 | (+) | 0.01 | 112.84 | 179.58 | 20.77 | 157.84 | Nil. | 178.61 | | | | | |

Government Owned Companies—Production and Capacity Utilisation

| Name of Company | Name of product | Unit | Installed capacity | | Production | | Capacity Utilisation in percentage | |
|--|-----------------------------|------------------------------|------------------------|---------------------|------------|---------|------------------------------------|---------|
| | | | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1. Kerala Ceramics Ltd. | Porcelain | Tonnes | 595 | 595 | 564 | 535 | 94.8 | 89.9 |
| | China Clay | " | 5000 | 5000 | 4859 | 6100 | 97.2 | 122.0 |
| | Sprey and dried Kaolin | " | 18000 | 18000 | 4260 | 3808 | 23.7 | 21.2 |
| 12. Kerala Electrical and Allied Engineering Co., Ltd. | Distribution Transformers | KVA. | 120000 | 120000 | 76837 | 80028 | 64.0 | 66.7 |
| | Electric Motors | Nos. | 500 | 300 | 6 | 3 | 1.2 | 1.0 |
| | Meter components | " | 252000 | 252000 | 46266 | 39912 | 18.4 | 15.6 |
| | Electric Wiring Accessories | " | 133000 | 133000 | 21988 | 6330 | 16.5 | 4.8 |
| | C.I. Special | M.T. | 240 | 240 | 129 | 41 | 53.8 | 17.1 |
| | Steel structures | " | 1200 | 1200 | 546 | 303 | 45.5 | 25.3 |
| 3. Kerala Minerals and Metals Ltd. | Alternators | Nos. | 600 | 600 | 299 | 399 | 49.8 | 66.5 |
| | Ilmenite | Tonnes | 25000 | 25000 | 22155 | 23549 | 88.6 | 94.2 |
| | Rutile | " | 2400 | 2400 | 2023 | 2052 | 84.3 | 85.5 |
| | Sillimanite | " | 1200 | 1200 | 124 | 981 | 10.3 | 81.8 |
| | Zircon | " | 300 | 300 | 521 | 124 | 173.7 | 41.3 |
| | Brown Ilmenite | " | 300 | 300 | 114 | 83 | 38.0 | 27.7 |
| 4. Kerala Premopipe Factory Ltd. | Monazite | " | 240 | 240 | 87 | 109 | 36.0 | 45.4 |
| | Prestressed Concrete Pipes | Nos. | N.A. | N.A. | 2841 | N.A. | .. | -- |
| | R.C.C. Pipes | " | N.A. | N.A. | 2692 | N.A. | .. | -- |
| 5. Kerala Soaps & Oils Ltd. | R.C.C. Collars | " | N.A. | N.A. | 1526 | N.A. | .. | .. |
| | Soaps | Tonnes | 7900 | 7900 | 2566 | 4347 | 32.5 | 55.0 |
| | Sharkliver Oil Products | " | 300 | 300 | 47 | 63 | 15.7 | 21.00 |
| 6. Kerala State Drugs & Pharmaceuticals Ltd. | Glycerine | " | 260 | 260 | 36 | 57 | 13.8 | 21.9 |
| | Tablets | Nos. (lac) | 2514 | 2514 | 1650.52 | 2483 | 65.7 | 98.8 |
| | Granules | Kgm. | 20000 | 20000 | 12643.00 | 4700 | 63.2 | 23.5 |
| | Capsules | Nos. (Lac.) | 149 | 149 | 63.03 | 85.00 | 42.3 | 57.0 |
| | Liquids | Lts (lac) | 2.25 | 2.25 | 0.79 | 1.02 | 35.1 | 45.3 |
| | Injectibles | | | | | | | |
| | (a) Bottles | Nos (lac.) | 4.50 | 4.50 | Nil. | 3.54 | .. | 78.7 |
| (b) Vials | " | 15 | 15 | Nil. | 5.55 | .. | 37.0 | |
| (c) Ampoules | " | 60 | 60 | 14.94 | 15.99 | 24.9 | 26.7 | |
| 7. Travancore Plywood Industries Ltd. | Plywood and allied articles | Lakh sq. Mtrs. of 4mm. basis | 27.38 | 27.38 | 10.00 | 9.50 | 36.5 | 34.7 |
| 8. Trivandrum Rubber Works Ltd. | Cycle Tyres | Nos. | 1500000 | 1500000 | 347034 | 565446 | 23.1 | 37.7 |
| | Cycle Rims | " | 300000 | 300000 | 102715 | 315581 | 34.2 | 105.2 |
| | Cycle Tubes | " | .. | 1800000 | .. | 18373 | .. | 1.0 |
| | Rubber Hoses | Metres | Not known | Not known | 7276 | 26010 | .. | .. |
| | Sheetings | Kgm. | " | " | 253236 | 587717 | .. | .. |
| | Camel Back | " | " | " | 207746 | 171735 | .. | .. |
| | Cycle | Nos. | " | " | 277 | 297 | .. | .. |
| | Latex Goods | Kgm. | " | " | 64008 | 65900 | .. | .. |
| 9. Trivandrum Spinning Mills Ltd. | Cotton yarn | Kgm. | 25200 Ring Spindles | 25200 Ring spindles | 485657 | 675434 | .. | .. |
| | | | 800 Doubling spindles. | | | | | |

Annexure 6.4

Government Majority Companies—Main Features

(Ru. in lakhs)

| Name of Company | Paid up Capital | | Persons (Nos.) Employed | | Net Profit/Loss | | | Value of Production | | | Sales during | | | Sales in 1978-79 | | Total |
|---|-----------------|---------|-------------------------|---------|-----------------|------------|---------|---------------------|---------|---------|--------------|---------|---------------|------------------|---------------|-------|
| | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 | Within Kerala | Outside Kerala | Outside India | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | | |
| 1. Chalakudy Refractories Ltd. | 36.03 | 40.03 | 141 | 164 | (-)-8.22 | (-)-6.17 | 6.06 | 13.12 | 6.30 | 9.41 | 4.79 | 4.62 | Nil. | Nil. | 9.41 | |
| 2. Forest Industries (Travancore) Ltd. | 17.71 | 17.71 | 161 | 157 | (+)-0.28 | (+)-2.50 | 52.60 | 50.86 | 46.93 | 59.76 | 32.29 | 0.46 | 27.01 | 59.76 | | |
| 3. Pallathra Bricks & Tiles Ltd. | 18.56 | 20.06 | 115 | 115 | (-)-4.21 | (-)-4.49 | 48.13 | 9.56 | 17.78 | 11.35 | 11.35 | Nil. | Nil. | Nil. | 11.35 | |
| 4. Traco Cable Company Ltd. | 119.92 | 119.92 | 232 | 234 | (+)-18.28 | (+)-22.46 | 313.59 | 476.33 | 395.51 | 465.11 | 108.19 | 356.92 | Nil. | 465.11 | | |
| 5. Transformers & Electricals Kerala Ltd. | 398.41 | 398.41* | 1095 | 1095* | (+)-60.54 | (+)-62.56 | 1105.31 | N.A. | 1071.00 | N.A. | N.A. | N.A. | N.A. | N.A. | N.A. | |
| 6. Travancore Cements Ltd.** | 50.00 | 50.00 | 469 | 452 | (+)-26.44 | (+)-17.74 | 246.32 | 464.22 | 274.24 | 268.04 | 268.04† | .. | Nil. | 968.04 | | |
| 7. Travancore Cochin Chemicals Ltd. | 634.75 | 634.75 | 1100 | 1092 | (-)-258.68 | (-)-134.24 | 588.00 | 673.91 | 585.00 | 674.24 | 494.69 | 179.55 | Nil. | 674.24 | | |
| 8. Travancore Titanium Products Ltd.** | 159.75 | 159.75 | 1336 | 1381 | (+)-43.00 | (+)-30.62 | 985.62 | 967.70 | 976.01 | 989.25 | 41.49 | 924.17 | 23.59 | 989.25 | | |
| 9. United Electrical Industries Ltd.** | 58.90 | 83.90 | 497 | 499 | (-)-17.25 | (+)-2.21 | 155.38 | 174.11 | 154.05 | 173.42 | 87.43 | 85.42 | 0.51 | 173.42 | | |
| Total | 1494.03 | 1524.53 | 5146 | 5189 | (-)-139.82 | (-)-5.94 | 3471.01 | .. | 3489.82 | .. | .. | .. | .. | .. | | |

* Last Year's figure retained.
** Calendar Year 1977 and 1978 respectively.
† Inclusive of sales outside Kerala.

APPENDIX 6.5

Government Majority Companies—Production and Capacity Utilisation

| Name of Company | Name of product | Unit | Installed capacity | | Production | | Capacity Utilisation in percentage | |
|---|--|-------------------|--------------------|-----------|------------|----------|------------------------------------|---------|
| | | | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1. Chalakudy Refractories Ltd. | Refractories | Tonnes | 5000 | 5000 | 1142 | 2126 | 22.8 | 42.5 |
| 2. Forest Industries (Travancore) Ltd. | Wooden doors Windows, Furniture etc. | Lakh man hours | 7.26 | 7.26 | 2.41 | 2.74 | 33.2 | 37.7 |
| 3. Pallathra Bricks & Tiles Ltd. | Sand Lime Bricks | Lakh nos. | 120 | 120 | 70.43 | 55.48 | 58.7 | 46.2 |
| 4. Traco Cable Company Ltd. | A.A.C/A.C.S.R. | M.T. | 1500 | 1500 | 1009 | 1166.70 | 67.3 | 77.8 |
| | P.V.C. covered conductors and Bare copper conductors | Lakh core metres | 109.73 | 109.73 | 22.45 | 48.81 | 20.5 | 44.5 |
| | Telephone Cables | L.K.M. | 1000 | 1000 | 1308 | 1709 | 130.8 | 170.9 |
| 5. Transformers and Electricals Kerala Ltd. | Power Transformers | MVA. | 3000 | N.A. | 2006 | N.A. | 66.9 | .. |
| | Current & Potential Transformers | Nos. | 600 | N.A. | 338 | N.A. | 56.3 | .. |
| 6. Travancore Cements Ltd. | White Cement | Tonnes | 30000 | 30000 | 34890 | 34057 | 116.3 | 113.5 |
| | Cement Paint | .. | Nil. | 450 | Nil. | 267 | .. | 59.3 |
| 7. Travancore Cochin Chemicals Ltd. | Zinc Hydroxide | M.T. | Nil. | .. | Nil. | 552 | .. | .. |
| | Caustic Soda | .. | 59400 | 59400 | 27440 | 26883 | 46.2 | 45.3 |
| | Hydro Sulphite of soda | .. | 2100 | 2100 | 242 | 352 | 11.5 | 16.8 |
| | Sodium Sulphide | .. | 2100 | 2100 | 573 | 456 | 27.3 | 21.7 |
| | Chlorine | .. | 52272 | 52272 | 24147 | 23657 | 46.2 | 45.3 |
| 8. Travancore Titanium Products Ltd. | Titanium dioxide | Tonnes | 24500 | 24500 | 9888 | 9916 | 40.4 | 40.5 |
| 9. United Electrical Industries Ltd. | K.W.H. Meters | Nos. | 200000 | 200000 | 115997 | 125010 | 58.00 | 62.5 |
| | Motor Control Gears | .. | 11800 | 11800 | 4445 | 4703 | 37.7 | 39.9 |
| | L.T. Switch Gear | .. | 600 | 600 | 115 | 164 | 19.2 | 27.3 |
| | Magneto Generator | .. | Not fixed | Not fixed | 1522 | 752 | .. | .. |
| | 11 K.V. Switch Gear | .. | .. | .. | 11 | 10 | .. | .. |
| | Plastic Film capacitors | .. | 10000000 | 10000000 | 7086542 | 7157230 | 70.9 | 71.6 |
| | Electronic Items | .. | Not fixed | Not fixed | 253 | 62 | .. | .. |
| | C.F.R. | .. | 20000000 | 20000000 | 6638900 | 13329850 | 33.2 | 66.6 |

ANNEXURE 6.6

Government of India Companies—Main Features

(Rs. in lakhs)

| Name of Company | Paid up Capital | | Persons (Nos.) Employed | | Net Profit/Loss | | Value of production | | | Sales during | | | Sales in 1978-79 | | Total |
|---|-----------------|----------|-------------------------|-----------|-----------------|------------|---------------------|----------|----------|--------------|----------|-----------|------------------|---------------|-------|
| | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 | Within Kerala | Outside India | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | |
| 1. Cochin Refineries Ltd. † | 700.00 | 700.00 | 447 | 468 (+) | 107.63 (+) | 184.07 (-) | 15133.42 | 25565.50 | 14977.68 | 25446.48 | .. | 25446.48* | Nil. | 25446.48 | |
| 2. Fertilisers & Chemicals Travancore Ltd. | 11881.20 | 11881.20 | 7028 | 7160 (-) | 886.00 (-) | 554.00 (-) | 6714.45 | 7514.27 | 8333.16 | 8735.43 | 2039.84 | 6695.59 | Nil. | 8735.43 | |
| 3. Hindustan Insecticides Ltd., Alwaye | .. | .. | 526 | 535 (+) | 0.29 (-) | 16.06 (-) | 433.09 | 684.81 | 345.68 | 535.49 | 14.47 | 521.02 | Nil. | 535.49 | |
| 4. Hindustan Latex Ltd. | 130.00 | 130.00 | 748 | 728 (+) | 14.24 (-) | 12.30 (-) | 249.40 | 261.00 | 249.40 | 258.11 | .. | 258.11* | Nil. | 258.11 | |
| 5. HMT. Ltd., Kalamassery | .. | .. | 2495 | 2582 (-) | 99.35 (+) | 46.83 (+) | 440.00 | 995.29 | 588.00 | 993.54 | 20.25 | 848.23 | 125.06 | 993.54 | |
| 6. Indian Rare Earths Ltd. | 323.50 | 751.50 | 882 | 935 (+) | 93.70 (+) | 96.50 (+) | 800.38 | 910.45 | 858.90 | 862.30 | .. | 397.90* | 464.40 | 862.30 | |
| 7. Indian Telephone Industries Ltd. Palghat | .. | .. | 109 | 108 (-) | 8.90 (-) | 9.68 (-) | 16.92 | 23.12 | 12.68 | 9.79 | 0.95 | 8.84 | Nil. | 9.79 | |
| 8. Instrumentation Ltd., Palghat | .. | .. | 194 | 277 (+) | 70.90@ (+) | 103.81@ | 225.05 | 352.68 | 319.25 | 490.68 | 0.65 | 490.03 | Nil. | 490.68 | |
| 9. Modern Bakeries (India) Ltd., Cochin | .. | .. | 155 | 154 (+) | 3.45 (+) | 15.74 (+) | 97.00 | 151.83 | 97.00 | 163.25 | 163.25 | Nil. | Nil. | 163.25 | |
| Total | .. | .. | 12584 | 12947 (-) | 704.04 (-) | 145.09 (-) | 24109.71 | 36458.95 | 25775.75 | 37495.07 | 22 39.41 | 34666.20 | 589.46 | 37495.07 | |

*Inclusive of sales within Kerala.

@Gross Profit.

†Financial year 1977-78 consists of seven months viz. 1-9-1977 to 31-3-1978.

APPENDIX 6.7

Government of India Companies—Production and Capacity Utilisation

| Name of Company | Name of Product | Unit | Installed capacity | | Production | | Capacity Utilisation in percentage | |
|--|--|-----------------------|--------------------|-----------|------------|---------|------------------------------------|---------|
| | | | 1977-78 | 1978-79 | 1977-78 | 1978-79 | 1977-78 | 1978-79 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1. Cochin Refineries Ltd. | Liquified Petroleum Gas | M.T. | 10000 | 10000 | 9330 | 15765 | 93.3 | 157.7 |
| | Naphtha | " | 267000 | 267000 | 138549 | 262170 | 51.9 | 98.2 |
| | Motor Spirit-83. | " | 184000 | 184000 | 99226 | 142109 | 53.9 | 77.2 |
| | Aviation Turbine Fuel | " | .. | N.A. | .. | 2559 | .. | .. |
| | Superior Kerosene | " | 735000 | 735000 | 215032 | 363644 | 29.3 | 49.5 |
| | High Speed Diesel | " | 707000 | 707000 | 535644 | 899823 | 77.5 | 130.2 |
| | Light Diesel Oil | " | .. | .. | 12089 | 20506 | .. | .. |
| | Asphalt | " | .. | N.A. | .. | 2758 | .. | .. |
| | Furnace Oil | " | 1110000 | 1110000 | 600639 | 991035 | 54.1 | 89.3 |
| | Low Sulphur Heavy Stock | " | .. | N.A. | .. | 28736 | .. | .. |
| 2. Fertilisers & Chemicals Travancore Ltd. | Ammonium Sulphate | M.T. | 198000 | 198000 | 134341 | 137505 | 67.8 | 69.4 |
| | Ammonium Phosphate 16:20. | " | 99000 | 99000 | 70675 | 69334 | 71.4 | 70.0 |
| | Ammonium Phosphate 20:20 | " | 49,500 | 49,500 | 40,138 | 42672 | 81.1 | 86.2 |
| | Ammonium Chloride | " | 24750 | 24,750 | 6878 | 6953 | 27.8 | 28.1 |
| | Super Phosphate | " | 49500 | 49500 | 30677 | 33701 | 61.9 | 68.1 |
| | Sulphur Dioxide | " | 8250 | 8250 | 1502 | 1113 | 18.2 | 13.5 |
| | Oleum | " | 6600 | 6600 | 1931 | 2242 | 29.3 | 34.0 |
| | Synthetic Cryolite | " | 1650 | 1650 | 182 | 124 | 11.0 | 7.5 |
| | Urea | " | 330000 | 330000 | 161790 | 186043 | 49.0 | 56.4 |
| | Complex Fertilisers | " | 485000 | 485000 | 89270 | 103690 | 18.4 | 21.4 |
| 3. Hindustan Insecticides Ltd. | Technical DDT. | Tonnes | 1344 | 1344 | 1153 | 1357 | 85.8 | 100.9 |
| | Formulated DDT. | " | 2688 | 2688 | 2182 | 2229 | 81.2 | 82.9 |
| | Technical BHC. | " | 3000 | 3000 | 1526 | 1928 | 50.9 | 64.3 |
| | Formulated BHC. | " | 3000 | 3000 | 2010 | 2019 | 67.0 | 67.3 |
| | HILDAN 35 EC. | " | N.A. | 1910 | 2683 | 381 | .. | 19.9 |
| 4. Hindustan Latex Ltd. | Contraceptive condoms | Million pieces | 288 | 288 | 163 | 183 | 56.6 | 63.5 |
| | Meteorological Baloons (875 gms.) | Nos. | Not fixed | 12000 | 3560 | 4750 | .. | 39.6 |
| 5. HMT. Ltd. | Machine Tools and accessories | Nos. | Not fixed | Not fixed | 2113 | 469 | .. | .. |
| | Printing Machines and Accessories | " | " | " | 19 | 57 | .. | .. |
| 6. Indian Rare Earths Ltd. | Ilmenite | M.T. | 200000 | 160000 | 146127 | 99617 | 67.1 | 62.3 |
| | Monazite | " | 600 | 300 | 2813 | 217 | 468.8 | 72.3 |
| | Zircon | " | 10000 | 9000 | 7822 | 4482 | 78.2 | 49.8 |
| | Rutile | " | 9000 | 7500 | 5096 | 3916 | 56.6 | 52.2 |
| | Sillimanite | " | 4000 | 4000 | 1673 | 646 | 41.8 | 16.2 |
| | Ziropac 'A' | " | .. | .. | 226 | 120 | .. | .. |
| | Zirflor | " | .. | .. | 2210 | 2803 | .. | .. |
| | Cerium Oxide | " | .. | 12 | .. | 24 | .. | 200.00 |
| | Rare Earth Chloride | " | 5000 | 5000 | 3751 | 3483 | 75.0 | 69.7 |
| | Trisodium Phosphate | " | 5600 | 5600 | 4398 | 4034 | 78.5 | 72.0 |
| | Thorium Hydroxide | " | 820 | 820 | 1170 | 1159 | 142.7 | 141.3 |
| | Rare Earths Flouride | " | 180 | 180 | 101 | 67 | 56.1 | 66.3 |
| | Rare Earths Oxide | " | 60 | 60 | 17 | 39 | 28.3 | 65.0 |
| 7. Indian Telephone Industries Ltd. | Electronic Switching Instruments | Lines | Not fixed | 2500 | 896 | 992 | — | 39.7 |
| | Complementary out-fits to instruments (including valves) | Nos. | Not fixed | 4000 | 1037 | 1081 | .. | 27.0 |
| 8. Modern Bakeries (India) Ltd. | Modern Bread | Lakh Nos. of 400 gms. | 123 | 123 | 83.59 | 136.46 | 67.9 | 110.9 |
| | Modern Bun | Lakh Nos. of 50 gms. | 47.66 | 47.66 | 24.37 | 6.29 | 51.1 | 13.2 |

APPENDIX 6.8

Progress of the Kerala Financial Corporation at a Glance

(Rs. in lakhs)

| Year | Loans sanctioned (cumulative) | Loans disbursed (cumulative) | Loans outstanding (cumulative) | Net profit before taxation | Net profit after taxation |
|---------|----------------------------------|---------------------------------|-----------------------------------|-------------------------------|------------------------------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1972-73 | 1947.55 | 1271.73 | 1024.88 | 13.58 | 6.58 |
| 1973-74 | 2312.81 | 1480.78 | 1200.24 | 18.47 | 9.33 |
| 1974-75 | 3010.59 | 1746.32 | 1451.91 | 43.20 | 28.48 |
| 1975-76 | 3977.47 | 2250.45 | 1931.50 | 55.85 | 31.95 |
| 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 |

APPENDIX 6.9

*Industry-wise Classification of Loans sanctioned and disbursed by the Kerala Financial Corporation
as on 1978-79*

(Rs. in lakhs)

| Sl. No. | Type of Industry | Amount Sanctioned | Percentage of total loan sanctioned | Amount disbursed | Percentage of total loan disbursed |
|---------|--|----------------------|---|---------------------|--|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. | Stone Quarrying clay & sand pits | 40.39 | 0.67 | 21.26 | 0.54 |
| 2. | Food Manufacturing Industries | 860.35 | 14.27 | 539.56 | 13.70 |
| 3. | Beverage industries | 18.88 | 0.31 | 16.88 | 0.43 |
| 4. | Manufacturing Textiles | 485.32 | 8.05 | 433.97 | 11.02 |
| 5. | Manufacturing of Footwear & other wearing Apparels | 58.45 | 0.07 | 37.35 | 0.95 |
| 6. | Manufacturing of wood cork except Furniture | 147.75 | 2.45 | 109.54 | 2.78 |
| 7. | Manufacturing Furniture & Fixtures | 164.40 | 2.73 | 83.97 | 2.13 |
| 8. | Manufacturing paper products | 96.06 | 1.59 | 44.68 | 1.13 |
| 9. | Printing, publishing & Allied industries | 219.29 | 3.64 | 152.09 | 3.86 |
| 10. | Manufacture of Rubber products | 417.89 | 6.93 | 284.62 | 7.23 |
| 11. | Manufacturing of Chemical & Chemical products | 549.25 | 9.11 | 314.68 | 7.99 |
| 12. | Manufacturing of non-metallic mineral products | 220.14 | 3.65 | 137.59 | 3.49 |
| 13. | Basic metal industries | 168.77 | 2.80 | 119.44 | 3.03 |
| 14. | Manufacturing metallic products | 207.12 | 3.44 | 113.01 | 2.87 |
| 15. | Manufacturing of machinery except Electrical Machinery | 233.62 | 3.88 | 158.79 | 4.03 |
| 16. | Manufacturing of Electrical Machinery | 324.51 | 5.39 | 243.78 | 6.19 |
| 17. | Manufacturing of Transport Equipments | 80.37 | 1.33 | 57.12 | 1.45 |
| 18. | Motion picture production | 79.14 | 1.31 | 56.92 | 1.44 |
| 19. | Hotels | 486.87 | 8.08 | 256.73 | 6.52 |
| 20. | Fishing Boat | 307.27 | 5.10 | 165.27 | 4.20 |
| 21. | Transport | 375.08 | 6.23 | 303.08 | 7.70 |
| 22. | Manufacturing of Leather goods | 0.30 | 0.00 | 0.27 | 0.01 |
| 23. | Industrial Estate | 30.00 | 0.50 | 30.00 | 0.76 |
| 24. | Petroleum Products | 7.27 | 0.12 | 5.68 | 0.14 |
| 25. | Manufacture of Tobacco | 0.44 | 0.01 | 0.15 | 0.00 |
| 26. | Miscellaneous Industries | 448.66 | 7.44 | 252.17 | 6.41 |
| | Total | 6027.59 | 100.00 | 3938.60 | 100.00 |

APPENDIX 6.10

District-wise sanction and Disbursement of Loans and Advances by the Kerala Financial Corporation as on 31-3-1979

(Rs. lakhs)

| Districts | Effective Sanction | | | | | | Disbursement | | | | | |
|-------------------------|--------------------|---------|--------|---------|-------|---------|------------------|---------|--------|---------|-------|---------|
| | 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) |
| <i>Backward Region</i> | | | | | | | | | | | | |
| 1. Trivandrum | 102 | 460.61 | 34 | 228.89 | 436 | 689.50 | 340 | 317.67 | 32 | 184.32 | 372 | 502.29 |
| 2. Alleppey | 272 | 504.17 | 28 | 209.86 | 300 | 714.03 | 196 | 260.35 | 26 | 167.97 | 222 | 428.32 |
| 3. Trichur | 262 | 412.80 | 25 | 213.87 | 287 | 626.67 | 207 | 277.30 | 24 | 126.09 | 231 | 403.39 |
| 4. Malappuram | 181 | 283.04 | 5 | 39.00 | 186 | 322.04 | 143 | 172.58 | 5 | 35.32 | 148 | 207.90 |
| 5. Cannanore | 180 | 242.01 | 12 | 96.28 | 192 | 338.29 | 127 | 120.96 | 10 | 76.69 | 137 | 197.65 |
| Sub Total | 1297 | 1902.63 | 104 | 787.90 | 1401 | 2690.53 | 1013 | 1119.16 | 97 | 590.39 | 1110 | 1739.55 |
| <i>Other Region</i> | | | | | | | | | | | | |
| 1. Quilon | 532 | 525.78 | 26 | 146.12 | 558 | 671.90 | 412 | 345.38 | 20 | 103.39 | 432 | 448.77 |
| 2. Kottayam | 211 | 317.00 | 30 | 173.32 | 241 | 490.32 | 169 | 192.61 | 26 | 157.37 | 195 | 349.98 |
| 3. Idukki | 38 | 21.45 | 4 | 16.36 | 42 | 37.81 | 32 | 18.59 | 1 | 3.55 | 33 | 22.14 |
| 4. Ernakulam | 593 | 1073.25 | 58 | 441.12 | 651 | 1514.67 | 477 | 673.16 | 49 | 284.66 | 526 | 957.82 |
| 5. Palghat | 70 | 98.96 | 3 | 52.45 | 73 | 151.41 | 46 | 44.35 | 3 | 52.00 | 49 | 96.35 |
| 6. Calicut | 374 | 349.31 | 19 | 118.51 | 393 | 467.82 | 323 | 231.74 | 15 | 89.19 | 338 | 320.93 |
| 7. Mahe and other areas | 4 | 3.13 | .. | .. | 4 | 3.13 | 4 | 3.06 | .. | .. | .. | 3.06 |
| Sub Total | 1822 | 2388.88 | 140 | 948.18 | 1962 | 3337.06 | 1463 | 1508.89 | 114 | 690.16 | 1577 | 2199.05 |
| Grand Total | 3119 | 4291.51 | 244 | 1736.08 | 3363 | 6027.59 | 2476 | 2658.05 | 211 | 1280.55 | 2687 | 3938.60 |

APPENDIX 6.11

Summary of Applications Received/Sanctioned/Disbursed etc. up to the year ending 31st March 1979 by the Kerala Financial Corporation

(Rs. lakhs)

| Particulars | During the year 1978-79 | | | | | | Since Inception up to 31-3-1979 | | | | | |
|---|-------------------------|--------|--------|--------|-------|---------|---------------------------------|---------|--------|---------|-------|---------|
| | 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 Received | 472 | 742.62 | 42 | 295.95 | 514 | 1038.57 | 4559 | 7048.46 | 322 | 2493.70 | 4871 | 9542.16 |
| 2. Applications Sanctioned | 492 | 604.04 | 33 | 186.32 | 525 | 790.36 | 3371 | 4755.69 | 272 | 1949.00 | 3643 | 6704.69 |
| 3. Applications Rejected/ Withdrawn | 52 | 113.15 | 1 | 53.10 | 53 | 166.25 | 619 | 1852.48 | 33 | 404.27 | 652 | 2256.75 |
| 4. Applications Cancelled or Reduced | 111 | 186.81 | 4 | 55.58 | 115 | 242.39 | 252 | 464.18 | 28 | 212.92 | 280 | 677.10 |
| 5. Applications Sanctioned Effectively | 381 | 417.23 | 29 | 130.74 | 410 | 547.97 | 3119 | 4291.51 | 244 | 1736.08 | 3363 | 6027.59 |
| 6. Amount Disbursed | 453 | 488.36 | 20 | 141.00 | 473 | 629.36 | 2476 | 2658.05 | 211 | 1280.55 | 2687 | 3938.60 |
| 7. Applications Pending | 559 | 440.29 | 17 | 140.43 | 576 | 580.72 | 559 | 440.29 | 17 | 140.43 | 576 | 580.72 |

Khadi and Village Industries— Production, Sales Employment Wages during 1977-78 and 1978-79

| Industry | Production Value in (Rs. lakhs) | | | Employment | | | | Wages (Rs. in lakhs) | | | | Total wages (Rs. lakhs) | | | | | | | |
|---|---------------------------------|----------------|---------------|----------------|--------------|--------------|--------------|----------------------|-------------|-----------|-----------|-------------------------|-----------|-----------|-----------|-----------|-----------|----------------|---------------|
| | 1977-78 | 1978-79 | 1977-78 | Full time | Part Time | Casual | Full Time | Part Time | Casual | 1977-78 | 1977-78 | 1977-78 | 1977-78 | 1978-79 | | | | | |
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | |
| A. KHADI | | | | | | | | | | | | | | | | | | | |
| (a) Khadi (Units aided by the Board) | 30.55 | 64.12 | 34.29 | 79.60 | 3877 | 7046 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 22.12 | 37.70 | |
| (b) Direct Centre (Including Payyanur Centre) | 34.45 | 46.49 | 46.49 | 1989 | 1989 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 14.59 | .. | |
| B. VILLAGES INDUSTRIES: | | | | | | | | | | | | | | | | | | | |
| 1. Village Oil | 89.55 | 99.27 | 98.65 | 103.02 | 541 | 325 | 611 | 606 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 6.36 | 4.97 |
| 2. Village Pottery | 66.51 | 82.33 | 70.43 | 84.58 | 3743 | 5118 | 360 | 516 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 40.51 | 56.50 |
| 3. Fibre & Screw-pine | 342.44 | 374.80 | 374.51 | 426.47 | 50597 | 52324 | 1190 | 969 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 259.35 | 278.13 |
| 4. Carpentry & Black-smithing | 10.03 | 14.29 | 10.84 | 10.72 | 132 | 218 | 10 | 31 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1.68 | 2.86 |
| 5. Hand made paper | 3.08 | 5.07 | 2.12 | 5.23 | 126 | 117 | 52 | 63 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.95 | 1.98 |
| 6. Gur Khandasari | 74.96 | 66.57 | 86.02 | 76.08 | 1112 | 988 | 614 | 579 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 12.87 | 13.82 |
| 7. Palmgur | 6.29 | 41.50 | 6.44 | 42.02 | 620 | 270 | 450 | 14960 | 97 | .. | .. | .. | .. | .. | .. | .. | .. | 1.17 | 37.85 |
| 8. Bee Keeping | 49.49 | 80.50 | 49.49 | 80.50 | 1250 | 1250 | 8328 | 17500 | .. | .. | .. | .. | .. | .. | .. | .. | .. | Self Em-ployed | .. |
| 9. Village Leather | 62.32 | 61.22 | 64.45 | 64.22 | 774 | 774 | 344 | 406 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 18.24 | 18.24 |
| 10. Lime | 41.87 | 64.90 | 44.42 | 68.70 | 766 | 1403 | 337 | 537 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 13.55 | 27.30 |
| 11. Non-edible Oil & Soaps | 2.94 | 11.04 | 8.51 | 9.32 | 16 | 35 | 310 | 605 | 2281 | .. | .. | .. | .. | .. | .. | .. | .. | 0.47 | 0.25 |
| 12. Cottage Match | 13.23 | 14.57 | 13.83 | 15.68 | 323 | 320 | 631 | 414 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2.59 | 2.61 |
| 13. Cane and Bamboo | 14.65 | 21.33 | 14.55 | 19.94 | 799 | 1237 | 1617 | 1727 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 7.24 | 11.23 |
| 14. Fruit processing & Fruit preservation | 6.40 | 0.30 | 9.15 | 0.25 | 160 | 5 | .. | 25 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 15. Processing of Cereals & Pulses | 14.97 | 32.97 | 14.94 | 35.25 | 264 | 843 | 38 | 5 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 3.30 | 7.86 |
| 16. Medicinal Plants | .. | 0.78 | .. | 0.59 | .. | 1 | .. | 268 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 0.50 |
| Total | 869.73 | 1095.56 | 944.13 | 1122.17 | 67089 | 72274 | 14892 | 39211 | 2378 | .. | .. | .. | .. | .. | .. | .. | .. | 403.47 | 500.80 |

APPENDIX 7.1

District-wise length of Public Works Department Roads as on 1-4-1979 (Km.)

| District | State Highways | Major District Roads | Other District Roads | Village Roads | Total |
|---------------|----------------|----------------------|----------------------|---------------|-----------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1. Trivandrum | 117.116 | 281.336 | 1008.237 | 70.766 | 1477.455 |
| 2. Quilon | 268.600 | 701.000 | 1144.400 | 256.000 | 2370.000 |
| 3. Alleppey | 190.260 | 222.080 | 791.917 | 12.095 | 1216.352 |
| 4. Kottayam | 258.488 | 651.205 | 825.481 | .. | 1735.174 |
| 5. Idukki | 419.440 | 797.626 | 777.148 | .. | 1994.214 |
| 6. Ernakulam | 95.193 | 473.705 | 506.932 | .. | 1075.890 |
| 7. Trichur | 186.272 | 490.381 | 597.605 | 32.196 | 1306.454 |
| 8. Palghat | 142.855 | 605.478 | 290.967 | 146.324 | 1185.624 |
| 9. Malappuram | 160.530 | 399.075 | 262.363 | 246.503 | 1068.471 |
| 10. Calicut | 99.254 | 612.942 | 133.131 | 396.150 | 1241.477 |
| 11. Cannanore | 84.200 | 338.521 | 521.000 | 506.380 | 1450.101 |
| Total | 2022.208 | 5573.349 | 6859.181 | 1666.414 | 16121.152 |

Source: Public Works Department, Kerala

APPENDIX 7.2

Number of Motor Vehicles having Valid Registration in Kerala as on 31-3-1979

| District | Goods Vehicles | | Buses | | Cars and Station Wagons | | | 3 Wheelers | | |
|----------------|---------------------|----------------------------|----------------|---------------------------|-------------------------|---------------|----------|------------|--------------|--------------------------|
| | 4 wheeler and above | 3 wheeler including Tempos | Stage carriage | Contract Carriage Omnibus | Car | Station Wagon | Taxi Cab | Jeep | Autorickshaw | Motorised Cycle Rickshaw |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 1. Trivandrum | 1912 | 170 | 189 | 146 | 10698 | 63 | 2180 | 1625 | 465 | .. |
| 2. Quilon | 2133 | 3 | 345 | 33 | 5419 | 3 | 1802 | 560 | 117 | 8 |
| 3. Alleppey | 900 | 35 | 308 | 34 | 4085 | 1 | 1400 | 210 | 246 | 8 |
| 4. Kottayam | 1674 | 55 | 431 | 41 | 2962 | .. | 1227 | 191 | 375 | .. |
| 5. Idukki | 597 | 2 | 106 | 30 | 964 | 2 | 554 | 563 | 4 | .. |
| 6. Ernakulam | 3063 | 262 | 723 | 174 | 9791 | 11 | 1784 | 603 | 1372 | 18 |
| 7. Trichur | 1734 | 24 | 909 | 66 | 3826 | .. | 2144 | 296 | 502 | 9 |
| 8. Palghat | 792 | 3 | 391 | 39 | 2713 | 10 | 853 | 264 | 391 | .. |
| 9. Malappuram | 836 | 1 | 416 | 21 | 2061 | .. | 1427 | 123 | 142 | .. |
| 10. Kozhikode | 2651 | 24 | 733 | 22 | 4521 | 87 | 745 | 1884 | 750 | 10 |
| 11. Cannanore | 1609 | 41 | 694 | 96 | 2894 | 43 | 1079 | 567 | 1302 | 1 |
| K. S. R. T. C. | 6 | .. | 2875 | 1 | 8 | 2 | .. | 33 | .. | .. |
| Total | 17907 | 620 | 8120 | 703 | 49882 | 222 | 15195 | 6919 | 5666 | 49 |

| District | 2 Wheelers | | | Tractor-Trailer Articulated | Tractor | Tiller | Trailer | Others | Total |
|----------------|-----------------|---------------------|------|-----------------------------|---------|--------|---------|--------|-------|
| | Motorised Cycle | Scooter/Motor Cycle | | | | | | | |
| (1) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | |
| 1. Trivandrum | .. | 9938 | 65 | 74 | 16 | 12 | 390 | 27883 | |
| 2. Quilon | 6 | 3362 | 100 | 11 | 6 | 3 | 67 | 13978 | |
| 3. Alleppey | 2 | 3422 | 37 | 82 | 34 | 24 | 19 | 10842 | |
| 4. Kottayam | 2 | 2012 | 43 | 7 | 21 | 2 | 19 | 9062 | |
| 5. Idukki | 5 | 605 | 184 | 51 | 12 | 9 | 122 | 3810 | |
| 6. Ernakulam | 4 | 9684 | 347 | 37 | 10 | 57 | 331 | 28271 | |
| 7. Trichur | 20 | 4916 | 391 | 57 | 45 | 9 | 174 | 13122 | |
| 8. Palghat | 6 | 3272 | 265 | 941 | 164 | 13 | 38 | 10155 | |
| 9. Malappuram | 1 | 723 | 26 | 203 | 14 | 37 | 122 | 6153 | |
| 10. Kozhikode | 7 | 3859 | 158 | 162 | 87 | 75 | 126 | 15901 | |
| 11. Cannanore | .. | 1836 | 178 | 1 | 16 | 1 | 93 | 10461 | |
| K. S. R. T. C. | .. | 4 | .. | .. | .. | .. | 38 | 2967 | |
| Total | 53 | 43633 | 1794 | 1626 | 425 | 242 | 1539 | 154586 | |

Source: Transport Commissioner, Kerala

APPENDIX 7.3

Number of Vehicles newly registered in the State During the year 1978-79

| District | Goods Vehicles | | Stage Carriages | Contract Carriage Omnibus | Cars and Station wagons | | | | 3 Wheelers | |
|----------------|---------------------|----------------------------|-----------------|---------------------------|-------------------------|---------------|------|------|---------------|--------------------------|
| | 4 Wheeler and above | 3 Wheeler including Tempos | | | Car | Station wagon | Taxi | Jeep | Authorickshaw | Motorised Cycle Rickshaw |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
| 1. Trivandrum | 143 | 17 | 44 | 49 | 249 | 7 | 382 | 62 | 133 | .. |
| 2. Quilon | 81 | 2 | 14 | 1 | 337 | 2 | .. | 56 | 42 | 2 |
| 3. Alleppey | 74 | 11 | 12 | 19 | 340 | .. | 4 | 21 | 41 | .. |
| 4. Kottayam | 130 | 18 | 34 | 12 | 178 | .. | 4 | 109 | 58 | .. |
| 5. Idukki | 39 | 1 | 5 | 5 | 32 | 2 | .. | 19 | 1 | .. |
| 6. Ernakulam | 141 | 100 | 39 | 24 | 480 | 1 | 19 | 36 | 87 | .. |
| 7. Trichur | 134 | 1 | 44 | 12 | 232 | .. | .. | 30 | 52 | 1 |
| 8. Palghat | 23 | .. | 11 | 15 | 16 | 5 | .. | 10 | 3 | .. |
| 9. Malappuram | 38 | 1 | 22 | 1 | 63 | .. | 1 | 44 | 37 | .. |
| 10. Kozhikode | 129 | 12 | 26 | 15 | 136 | 3 | 1 | 36 | 23 | .. |
| 11. Cannanore | 59 | 26 | 41 | 9 | 45 | 1 | .. | 30 | 160 | .. |
| K. S. R. T. C. | .. | .. | 259 | .. | 1 | .. | .. | 1 | .. | .. |
| Total | 991 | 189 | 551 | 162 | 2109 | 21 | 411 | 454 | 637 | 3 |

| District | 2 Wheelers | | Tractor-trailer Articulated | Tractor | Tiller | Trailer | Others | Total |
|----------------|-----------------|---------------------|-----------------------------|---------|--------|---------|--------|-------|
| | Motorised Cycle | Scooter/Moter Cycle | | | | | | |
| (1) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) |
| 1. Trivandrum | .. | 1258 | 21 | 3 | 2 | 4 | 89 | 2443 |
| 2. Quilon | .. | 534 | 10 | 2 | 1 | .. | 7 | 1091 |
| 3. Alleppey | 1 | 745 | 2 | 1 | 35 | 5 | 23 | 1394 |
| 4. Kottayam | .. | 426 | 19 | 3 | 8 | 3 | 1 | 1003 |
| 5. Idukki | 1 | 77 | 4 | 14 | 5 | .. | 3 | 208 |
| 6. Ernakulam | .. | 1528 | 2 | 7 | .. | 4 | 1 | 2469 |
| 7. Trichur | .. | 703 | 7 | 11 | 9 | 5 | 2 | 1243 |
| 8. Palghat | 2 | 240 | 7 | 10 | 2 | 2 | 3 | 349 |
| 9. Malappuram | .. | 149 | 10 | 7 | 2 | .. | .. | 375 |
| 10. Kozhikode | .. | 667 | 23 | 12 | 5 | .. | 9 | 1097 |
| 11. Cannanore | .. | 243 | 2 | .. | 11 | .. | 3 | 630 |
| K. S. R. T. C. | .. | 4 | .. | .. | .. | .. | .. | 265 |
| Total | 4 | 6574 | 107 | 70 | 80 | 23 | 121 | 12507 |

Source: Transport Commissioner, Kerala

APPENDIX 7.4

Number of Road Accidents in which Motor Vehicles were involved in Kerala (1977 and 1978)

| District | No. of Road Accidents | | No. of Persons Injured | | No. of Persons Killed | |
|------------------------|-----------------------|------|------------------------|------|-----------------------|------|
| | 1977 | 1978 | 1977 | 1978 | 1977 | 1978 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. Trivandrum (i) City | 483 | 628 | 423 | 495 | 30 | 35 |
| (ii) Rural | 419 | 588 | 286 | 245 | 62 | 49 |
| 2. Quilon | 540 | 587 | 420 | 852 | 89 | 116 |
| 3. Alleppey | 557 | 612 | 548 | 348 | 75 | 81 |
| 4. Kottayam | 499 | 532 | 876 | 830 | 61 | 50 |
| 5. Idukki | 119 | 128 | 222 | 246 | 29 | 39 |
| 6. Ernakulam (i) City | 641 | 678 | 536 | 637 | 42 | 44 |
| (ii) Rural | 413 | 399 | 413 | 538 | 87 | 92 |
| 7. Trichur | 420 | 515 | 418 | 569 | 98 | 130 |
| 8. Palghat | 435 | 483 | 421 | 545 | 92 | 94 |
| 9. Malappuram | 407 | 464 | 335 | 733 | 56 | 84 |
| 10. Kozhikode | 735 | 794 | 673 | 852 | 122 | 130 |
| 11. Cannanore | 472 | 610 | 492 | 624 | 60 | 111 |
| Total | 6140 | 7018 | 6063 | 7514 | 903 | 1057 |

Source: Inspector General of Police, Kerala

APPENDIX 7.5
Motor Vehicle Accidents in Kerala—by Primary Cause of Accidents (1978)

| District | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|------------------------|----------------------------------|---|------------------|---------------------|---------------------|---|------------------------|------------------------|--------------|------------------|-------|
| | Fault of driver of motor vehicle | Fault of driver of vehicle other than motor vehicle | Fault of cyclist | Fault of pedestrian | Fault of passengers | Defect in mechanical condition of motor vehicle | Defective Road surface | Bad weather conditions | Other Causes | Causes not known | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| 1. Trivandrum (i) City | 381 | 24 | 43 | 110 | 24 | 8 | 3 | .. | 23 | 12 | 628 |
| (ii) Rural | 261 | 18 | 57 | 200 | .. | 19 | .. | .. | 33 | .. | 588 |
| 2. Quilon | 587 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 587 |
| 3. Alleppey | 417 | 6 | 73 | 30 | 18 | 24 | .. | .. | 44 | .. | 612 |
| 4. Kottayam | 379 | 8 | 13 | 24 | 27 | 14 | 9 | 16 | 23 | 19 | 592 |
| 5. Idukki | 62 | 2 | 3 | 10 | 2 | 39 | 1 | 1 | 7 | 1 | 128 |
| 6. Ernakulam (i) City | 492 | .. | 18 | 92 | 28 | .. | .. | .. | 48 | .. | 678 |
| (ii) Rural | 324 | 9 | 9 | 18 | 6 | 3 | .. | 1 | 26 | 3 | 399 |
| 7. Trichur | 463 | 2 | 4 | 5 | 2 | 11 | 4 | 8 | 16 | .. | 515 |
| 8. Palghat | 381 | 2 | 3 | 30 | 8 | 21 | 4 | .. | 27 | 7 | 483 |
| 9. Malappuram | 338 | .. | 5 | 65 | 7 | 19 | .. | .. | 13 | 17 | 464 |
| 10. Kozhikode | 555 | 8 | 19 | 65 | 10 | 26 | 1 | 2 | 85 | 23 | 794 |
| 11. Cannanore | 192 | 2 | 8 | 36 | 6 | 292 | 3 | 8 | 51 | 12 | 610 |
| Total | 4882 | 81 | 255 | 685 | 138 | 476 | 25 | 36 | 996 | 94 | 7018 |

Source: Inspector General of Police, Kerala.

Kerala State Road Transport Corporation—Operational Statistics (1978-79)

| Transport Unit | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|--------------------|---------------------------------|------------------|---------------|-------------------|------------------------------------|--|----------------------------|---|---|--------------------------------------|--|------|
| | Average No. of buses held daily | No. of schedules | No. of routes | Route kilo metres | Gross distance operated (lakh kms) | Effective distance operated (lakh kms) | Passengers carried (lakhs) | Average distance travelled by a passenger (kms) | Earnings per kilometre of Bus operation (Rs.) | Average earnings per Passenger (ps.) | Earnings per vehicle on road per day (Rs.) | |
| 1. Alleppey | 115.9 | 109 | 126 | 5130 | 92.53 | 92.03 | 347.74 | 11.9 | 2.3 | 60.4 | 502.6 | |
| 2. Alwaye | 103.8 | 88 | 122 | 4484 | 76.37 | 75.17 | 257.49 | 12.6 | 2.2 | 63.2 | 529.5 | |
| 3. Attingal | 53.9 | 54 | 130 | 4599 | 47.29 | 47.18 | 208.11 | 10.2 | 2.2 | 50.3 | 590.4 | |
| 4. Cannanore | 58.3 | 62 | 55 | 5691 | 65.09 | 64.09 | 83.93 | 27.2 | 2.0 | 149.4 | 700.7 | |
| 5. Chalakudy | 48.8 | 45 | 78 | 2494 | 36.55 | 36.14 | 101.35 | 13.2 | 1.9 | 68.9 | 538.5 | |
| 6. Changanassery | 63.7 | 61 | 145 | 3445 | 54.47 | 54.47 | 188.04 | 11.9 | 2.0 | 59.2 | 580.3 | |
| 7. Chengannur | 74.9 | 70 | 147 | 4956 | 61.35 | 61.03 | 203.55 | 13.3 | 2.1 | 62.7 | 525.3 | |
| 8. Ernakulam | 106.3 | 98 | 145 | 9914 | 99.96 | 96.83 | 162.54 | 24.3 | 2.3 | 135.6 | 748.5 | |
| 9. Guruvayoor | 37.2 | 31 | 35 | 3041 | 35.37 | 35.11 | 50.85 | 28.5 | 2.2 | 154.8 | 777.9 | |
| 10. Kayamkulam | 93.9 | 84 | 120 | 4897 | 74.68 | 74.26 | 235.88 | 13.9 | 2.3 | 71.0 | 622.5 | |
| 11. Kottarakkara | 89.3 | 85 | 151 | 6651 | 73.84 | 73.15 | 129.46 | 26.4 | 2.4 | 133.1 | 588.3 | |
| 12. Kottayam | 142.4 | 117 | 190 | 9689 | 113.11 | 111.86 | 240.49 | 19.4 | 2.2 | 101.7 | 601.0 | |
| 13. Kozhikode | 144.4 | 136 | 80 | 10095 | 128.73 | 127.00 | 201.95 | 25.8 | 2.2 | 138.0 | 567.2 | |
| 14. Mavattupuzha | 59.4 | 58 | 78 | 4309 | 48.38 | 47.99 | 125.25 | 15.3 | 2.0 | 78.3 | 582.4 | |
| 15. Nedumangadu | 74.9 | 79 | 150 | 1739 | 64.74 | 64.54 | 248.54 | 12.3 | 2.3 | 60.2 | 609.1 | |
| 16. Neyyattinkara | 81.3 | 88 | 173 | 4578 | 75.90 | 75.55 | 287.18 | 11.9 | 2.2 | 57.8 | 598.9 | |
| 17. Palai | 58.3 | 68 | 106 | 4452 | 47.19 | 46.25 | 136.21 | 15.0 | 2.2 | 75.3 | 578.7 | |
| 18. Palghat | 63.6 | 62 | 51 | 6325 | 67.53 | 67.17 | 84.15 | 32.8 | 2.2 | 176.8 | 693.8 | |
| 19. Pappanamcode | 57.8 | 58 | 157 | 1862 | 32.82 | 32.49 | 202.14 | 7.2 | 2.2 | 35.4 | 368.3 | |
| 20. Pathanamthitta | 38.9 | 34 | 71 | 2684 | 29.11 | 28.68 | 80.57 | 15.3 | 2.2 | 78.8 | 602.6 | |
| 21. Ponnayannur | 45.4 | 44 | 43 | 2996 | 44.19 | 43.43 | 64.15 | 25.6 | 2.0 | 137.2 | 661.4 | |
| 22. Perinthalmanna | 10.8 | 26 | 22 | 8042 | 12.58 | 12.39 | 17.18 | 28.1 | 2.1 | 152.0 | 787.0 | |
| 23. Perumbavoor | 36.7 | 47 | 52 | 2459 | 29.20 | 28.97 | 73.60 | 13.7 | 1.8 | 71.9 | 508.8 | |

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|-----------------------|---------------|-------------|-------------|---------------|----------------|----------------|----------------|-------------|------------|-------------|--------------|
| 24. Ponkunnam | 2.1 | 12 | 9 | 1998 | 1.94 | 1.94 | 1.55 | 47.2 | 2.2 | 277.4 | 656.0 |
| 25. Ponnani | 11.0 | 18 | 15 | 1828 | 10.78 | 10.67 | 15.60 | 25.4 | 2.0 | 136.7 | 713.6 |
| 26. Punalur | 54.6 | 49 | 113 | 4612 | 45.75 | 45.75 | 147.23 | 13.9 | 2.3 | 72.0 | 640.1 |
| 27. Quilon | 143.4 | 140 | 166 | 8873 | 126.14 | 124.77 | 356.40 | 15.5 | 2.3 | 79.7 | 591.2 |
| 28. Sberthalai | 36.3 | 33 | 63 | 2032 | 26.96 | 26.92 | 92.51 | 12.9 | 2.2 | 64.5 | 589.6 |
| 29. Sulthanbathery | 67.9 | 61 | 60 | 3523 | 56.40 | 54.44 | 148.91 | 15.4 | 2.1 | 78.1 | 574.8 |
| 30. Tiruvalla | 68.8 | 67 | 148 | 6028 | 50.41 | 50.02 | 152.16 | 14.0 | 2.1 | 70.5 | 511.4 |
| 31. Trichur | 131.4 | 95 | 100 | 6369 | 115.16 | 114.87 | 250.47 | 18.9 | 2.1 | 96.3 | 710.4 |
| 32. Trivandrum CL | 160.7 | 137 | 147 | 9582 | 173.37 | 173.06 | 383.76 | 19.9 | 2.3 | 101.4 | 729.3 |
| 33. Trivandrum CY | 200.0 | 189 | 559 | 6636 | 95.51 | 93.64 | 848.82 | 5.7 | 2.5 | 27.0 | 384.9 |
| 34. Vazhinjam | 46.4 | 41 | 38 | 1154 | 35.96 | 35.89 | 200.72 | 7.5 | 2.1 | 37.6 | 530.7 |
| Workshops and Offices | .. | .. | .. | .. | 4.84 | .. | .. | .. | .. | .. | .. |
| Total | 2582.2 | 2446 | 3465 | 159741 | 2154.19 | 2127.75 | 6328.49 | 14.4 | 2.2 | 73.9 | 599.2 |

Source: Kerala State Road Transport Corporation

APPENDIX 7.7

Details of Goods Traffic Originating at different Railway Stations in Kerala State during the year 1978-79

| (District-wise) | | | |
|-----------------|-------------------------------------|---|-------------------------|
| District | Tonnes Originating (1000 tonnes) | Freight Earnings (overall) (in lakh Rs.) | No. of Wagons Loaded |
| (1) | (2) | (3) | (4) |
| 1. Cannanore | 22.93 | 28.56 | 1108 |
| 2. Kozhikode | 117.15 | 155.45 | 5668 |
| 3. Malappuram | 31.50 | 27.85 | 1706 |
| 4. Palghat | 596.99 | 36.43 | 26726 |
| 5. Trichur | 62.35 | 83.75 | 2830 |
| 6. Ernakulam | 1707.63 | 1245.29 | 84470 |
| 7. Kottayam | 49.42 | 90.23 | 2072 |
| 8. Alleppey | 26.77 | 41.12 | 1546 |
| 9. Quilon | 62.18 | 111.01 | 3878 |
| 10. Trivandrum | 28.62 | 28.26 | 1463 |
| Total | 2705.54 | 1847.95 | 131467 |

Source: Statistical Branch, Southern Railway, Madras.

APPENDIX 7.8

Import and export tonnage of Cargo Handled and Revenue collected at the Intermediate and Minor Ports of Kerala During 1978-79

| Ports | Import (Tonnes) | | | Export (Tonnes) | | | Total (Tonnes) | | | Revenue Earned during | |
|------------------------|-----------------|--------------|--------------|-----------------|---------------|---------------|----------------|---------------|---------------|-----------------------|----------------|
| | Coastal | Foreign | Total | Coastal | Foreign | Total | Coastal | Foreign | Total | 1977-78 | 1978-79 |
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | Rs. | Rs. |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| 1. Alleppey | .. | .. | .. | .. | 2777 | 2777 | .. | 2777 | 2777 | 76087 | 42227 |
| 2. Calicut | 5267 | 5021 | 10288 | 49279 | 18018 | 67297 | 54546 | 23039 | 77585 | 359445 | 289114 |
| 3. Neendakara | .. | 17440 | 17440 | .. | 83150 | 83150 | .. | 100590 | 100590 | 839724 | 827238 |
| 4. Trivandrum | .. | .. | .. | .. | .. | .. | .. | .. | .. | 5167 | 3470 |
| 5. Quilon | .. | .. | .. | .. | .. | .. | .. | .. | .. | 6644 | 3503 |
| 6. Azhikode (Munambam) | .. | .. | .. | .. | .. | .. | .. | .. | .. | 4410 | 14108 |
| 7. Ponnani | 2 | .. | 2 | .. | .. | .. | 2 | .. | 2 | 4724 | 3290 |
| 8. Badagara | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1035 | 28016 |
| 9. Tellicherry | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2312 | 3551 |
| 10. Cannanore | 3 | .. | 3 | .. | .. | .. | 3 | .. | 3 | 7092 | 5759 |
| 11. Azhikkal | 3181 | .. | 3181 | 11996 | .. | 11996 | 15177 | .. | 15177 | 57406 | 81320 |
| 12. Kasargod | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1152 | 1411 |
| Total | 8453 | 22461 | 30914 | 61275 | 103945 | 165220 | 69728 | 126406 | 196134 | 1965198 | 1349007 |

Source: Director of Ports, Kerala.

APPENDIX 7.9

Number and Tonnage of Steamers and Sailing Vessels which called at the Intermediate and Minor Ports of Kerala during 1978-79

| Ports | Coastal | Steamers | | Sailing Vessels | | Total No. of vessels | Total Tonnage | |
|---------------------------|---------|----------|---------|-----------------|---------|----------------------|---------------|--------|
| | Foreign | No. | Tonnage | No. | Tonnage | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | |
| <i>Intermediate Ports</i> | | | | | | | | |
| 1. Alleppey | Coastal | .. | .. | .. | .. | .. | .. | |
| | Foreign | 5 | 25777 | .. | .. | 5 | 25777 | |
| 2. Calicut | Coastal | 11 | 14169 | 469 | 60803 | 480 | 74972 | |
| | Foreign | .. | .. | 14 | 2794 | 14 | 2794 | |
| 3. Neehindakara | Coastal | .. | .. | .. | .. | .. | .. | |
| | Foreign | 9 | 48740 | .. | .. | 9 | 48740 | |
| <i>Minor Ports</i> | | | | | | | | |
| 4. Trivandrum | Coastal | .. | .. | .. | .. | .. | .. | |
| | Foreign | .. | .. | .. | .. | .. | .. | |
| 5. Quilon | Coastal | .. | .. | .. | .. | .. | .. | |
| | Foreign | .. | .. | .. | .. | .. | .. | |
| 6. Azhikode | Coastal | .. | .. | .. | .. | .. | .. | |
| | Foreign | .. | .. | .. | .. | .. | .. | |
| 7. Ponnani | Coastal | .. | .. | 11 | 1286 | 11 | 1286 | |
| | Foreign | .. | .. | .. | .. | .. | .. | |
| 8. Badagara | Coastal | .. | .. | .. | .. | .. | .. | |
| | Foreign | .. | .. | .. | .. | .. | .. | |
| 9. Azhikkal | Coastal | .. | .. | 153 | 16118 | 153 | 16118 | |
| | Foreign | .. | .. | .. | .. | .. | .. | |
| 10. Tellicherry | Coastal | .. | .. | .. | .. | .. | .. | |
| | Foreign | .. | .. | .. | .. | .. | .. | |
| 11. Cannanore | Coastal | .. | .. | .. | .. | .. | .. | |
| | Foreign | .. | .. | .. | .. | .. | .. | |
| 12. Kasargod | Coastal | 11 | 14169 | 633 | 78207 | 644 | 92376 | |
| | Foreign | 14 | 74517 | 14 | 2794 | 28 | 77311 | |
| Total for 1978-79 | | | 25 | 88686 | 647 | 81001 | 672 | 169687 |
| Total for 1977-78 | | | 40 | 123104 | 894 | 99528 | 934 | 222992 |

Source: Director of Ports, Kerala.

APPENDIX 7.10

Tonnage of Principal commodities of imports into
Cochin port during the year 1978-79

| Commodity | (Tonnes) | | |
|---|---------------|----------------|----------------|
| | Coastal | Foreign | Total |
| (1) | (2) | (3) | (4) |
| 1. Rice and paddy | .. | .. | .. |
| 2. Other Grains including Pulses and flour | .. | 47391 | 47391 |
| 3. Coal | 111382 | .. | 111382 |
| 4. Cashewnuts | 2 | 6530 | 6532 |
| 5. Machinery | 36 | 8940 | 8976 |
| 6. Iron and Steel | 361 | 10233 | 10594 |
| 7. Tin Plate | .. | 1190 | 1190 |
| 8. Motor Vehicles and Parts | 38 | 13 | 51 |
| 9. Chemicals and Chemical Preparations | 61 | 3155 | 3216 |
| 10. Oilseeds including Copra and Groundnuts | 254 | 4544 | 4798 |
| 11. Drugs and Medicines | .. | 20 | 20 |
| 12. Paper, old Newspaper and Stationery | 95 | 24363 | 24458 |
| 13. Cotton, Raw and Waste | 8 | 7293 | 7301 |
| 14. Oilman Stores, Provisions and Spices | .. | 25521 | 25521 |
| 15. Sulphur | .. | 157955 | 157955 |
| 16. Rock Phosphate | .. | 321821 | 321821 |
| 17. Fertilisers | .. | 135755 | 135755 |
| 18. Liquid Ammonia | .. | 49590 | 49590 |
| 19. Salt | 16381 | .. | 16381 |
| 20. Zinc Concentrate | .. | 29568 | 29568 |
| 21. Calcined Bauxite | 8762 | .. | 8762 |
| 22. Soda | 5302 | .. | 5302 |
| 23. Candles, Paraffin Wax and Tallow | .. | 510 | 510 |
| 24. P.O.L. | 263215 | 2673631 | 2936846 |
| 25. Cement | .. | 234524 | 234524 |
| 26. Transhipment Cargo | 1908 | 4271 | 6179 |
| 27. Miscellaneous | 6703 | 67355 | 74058 |
| Total | 414508 | 3814173 | 4228681 |

Source:--Cochin Port Trust, Administration Report, 1978-79.

APPENDIX 7.11

Tonnage of principal commodities of exports from Cochin Port
during the year 1978-79

| Commodity | (Tonnes) | | |
|------------------------------------|---------------|---------------|----------------|
| | Coastal | Foreign | Total |
| (1) | (2) | (3) | (4) |
| 1. Coir Products | 6 | 48354 | 48360 |
| 2. Tea | 8 | 43009 | 43017 |
| 3. Rubber | 40 | 61 | 101 |
| 4. Coffee | .. | 24006 | 24006 |
| 5. Coconuts | .. | .. | .. |
| 6. Copra | .. | .. | .. |
| 7. Cashew Kernels | .. | 32278 | 32278 |
| 8. Chemicals | 174 | 11770 | 11944 |
| 9. Cotton Raw and Waste | .. | 333 | 333 |
| 10. Rice and Other Food-grains | 2573 | .. | 2573 |
| 11. Pepper | .. | 18814 | 18814 |
| 12. Ginger | .. | 9264 | 9264 |
| 13. Cardamom | .. | 668 | 668 |
| 14. Turmeric | .. | 2824 | 2824 |
| 15. Coconut Oil | 19 | .. | 19 |
| 16. Cashew Shell Liquid | 2 | 5264 | 5266 |
| 17. Lemongrass Oil | .. | 445 | 445 |
| 18. Timber | 822 | 12610 | 13432 |
| 19. Marine Products | .. | 45530 | 45530 |
| 20. Oil Cakes | .. | 315 | 315 |
| 21. Machinery | 102 | 5091 | 5193 |
| 22. Iron and Steel | 203 | 2488 | 2691 |
| 23. Mineral Sand including Granite | 30 | 4849 | 4879 |
| 24. Cement | 1876 | .. | 1876 |
| 25. P.O.L. | 902041 | .. | 902041 |
| 26. Transhipment Cargo | 4170 | 2009 | 6179 |
| 27. Miscellaneous | 4750 | 54550 | 59300 |
| Total | 916816 | 324532 | 1241348 |
| Bunkers | 42109 | 16307 | 58416 |

Source:--Cochin Port Trust, Administration Report, 1978-79.

APPENDIX 7.12

Growth of Post Offices in Kerala

| Category of office | As on | | | | | | | | |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 1-7-1961 | 1-4-1969 | 1-4-1974 | 1-4-1975 | 1-4-1976 | 1-12-1976 | 1-4-1977 | 1-4-1978 | 1-4-1979 |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1. Head Offices | 12 | 22 | 28 | 29 | 31 | 32 | 32 | 33 | 34 |
| 2. Sub Post Offices | 552 | 967 | 1204 | 1219 | 1233 | 1229 | 1238 | 1270 | 1354 |
| 3. Branch Offices | 2334 | 2732 | 2786 | 2774 | 2780 | 2836 | 2833 | 2915 | 2984 |
| Total | 2898 | 3721 | 4018 | 4022 | 4044 | 4097 | 4103 | 4218 | 4352 |

Source: Post Master General, Kerala.

APPENDIX 7.13

Area and Population served by each Post Office in the various Districts of Kerala State

| District | Area Served by each P.O. in sq. kms. | Population Served by each P.O. |
|-------------------|--------------------------------------|--------------------------------|
| (1) | (2) | (3) |
| 1. Trivandrum | 6.21 | 7439 |
| 2. Quilon | 11.06 | 6892 |
| 3. Alleppey | 4.73 | 6379 |
| 4. Kottayam | 5.55 | 4641 |
| 5. Idukki | 22.61 | 4071 |
| 6. Ernakulam | 6.95 | 7558 |
| 7. Trichur | 6.61 | 5536 |
| 8. Palghat | 10.71 | 4893 |
| 9. Malappuram | 10.08 | 6139 |
| 10. Kozhikode | 8.02 | 5411 |
| 11. Cannanore | 10.89 | 5389 |
| Average for State | 8.93 | 5858 |

Source. Post Master General, Kerala.

APPENDIX 7.14

Statistics of Post Offices as on 1-4-1979 in Kerala State

| Division | Number of Post Offices | | | Total |
|------------------|------------------------|------------|----------------|-------|
| | Head Offices | Sub Office | Branch Offices | |
| (1) | (2) | (3) | (4) | (5) |
| 1. Trivandrum | 3 | 154 | 196 | 353 |
| 2. Quilon | 3 | 207 | 208 | 418 |
| 3. Alleppey | 2 | 127 | 51 | 180 |
| 4. Tiruvalla | 2 | 131 | 85 | 218 |
| 5. Kottayam | 4 | 199 | 193 | 396 |
| 6. Idukki | 1 | 78 | 146 | 225 |
| 7. Ernakulam | 2 | 73 | 52 | 127 |
| 8. Alwaye | 2 | 118 | 95 | 215 |
| 9. Trichur | 2 | 125 | 154 | 281 |
| 10. Irinjalakuda | 1 | 82 | 95 | 178 |
| 11. Palghat | 3 | 104 | 117 | 224 |
| 12. Ottappalam | 1 | 71 | 115 | 187 |
| 13. Malappuram | 2 | 136 | 223 | 361 |
| 14. Calicut | 3 | 171 | 291 | 465 |
| 15. Cannanore | 2 | 111 | 206 | 319 |
| 16. Tellicherry | 1 | 67 | 137 | 205 |
| Total | 34 | 1954 | 2364 | 4352 |

Source. Post Master General, Kerala.

APPENDIX 7.15

Statistics Relating to Telephone Exchanges—Kerala (April 1979)

| Item | No. of Exchanges | Total Equipped capacity | Total Working connections | Total Waiting list |
|---|------------------|-------------------------|---------------------------|--------------------|
| (1) | (2) | (3) | (4) | (5) |
| 1. Kerala circle excluding Phones Districts at Ernakulam & Trivandrum, Phones Division at Calicut and areas in centrally administered areas | 397 | 65270 | 57139 | 6432 |
| 2. Trivandrum Telephone District | 3 | 10500 | 9968 | 1004 |
| 3. Calicut Telephones | 2 | 8100 | 7816 | 545 |
| 4. Ernakulam Telephone District | 6 | 14300 | 11948 | 1639 |
| 5. Total for Kerala State | 408 | 98170 | 86871 | 9620 |
| 6. Centrally Administered Areas | | | | |
| (i) Lakshadweep Islands | 4 | 225 | 210 | 2 |
| (ii) Mahe | 1 | 300 | 222 | 30 |

Source: Directory of Telecommunication Services (Kerala), April 1979.

APPENDIX 8.3

Quantity—Tonnes
Value—Rs. Crores*Itemwise Exports of Marine Products*

| Items | 1975-76 | | 1976-77 | | 1977-78 | | 1978-79 | |
|--------|----------|--------|----------|--------|----------|--------|----------|--------|
| | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Frozen | 50549 | 121.51 | 56977 | 183.34 | 56743 | 172.11 | 76555 | 225.20 |
| Canned | 191 | 0.43 | 194 | 0.73 | 129 | 0.57 | 197 | 0.87 |
| Dried | 2491 | 1.08 | 5401 | 2.17 | 4465 | 2.43 | 6928 | 3.69 |
| Others | 1232 | 1.51 | 4178 | 2.88 | 4630 | 5.84 | 3214 | 4.86 |
| Total | 54463 | 124.53 | 66750 | 189.12 | 65967 | 180.95 | 86894 | 234.62 |

APPENDIX 8.4

Cashew Importing Countries

| Countries | Exports in tonnes during January-October | |
|---------------------|--|--------------|
| | January 1979 | October 1978 |
| (1) | (2) | (3) |
| U.S.A. | 11099 | 4887 |
| U.S.S.R. | 9621 | 6672 |
| Japan | 3322 | 2761 |
| Australia | 1345 | 455 |
| Netherlands | 1165 | 860 |
| Canada | 1118 | 416 |
| German Fe. Rep. | 571 | 212 |
| Singapore | 467 | 265 |
| U.K. | 447 | 367 |
| Hong Kong | 371 | 258 |
| Kuwait | 220 | 361 |
| France | 167 | 200 |
| Others | 1044 | 748 |
| Total | 30957 | 18462 |
| Value in Rs. crores | 88.03 | 60.74 |
| Unit value Rs./Kg. | 28.44 | 32.90 |

APPENDIX 8.5

Item-wise Export of Coir and Coir Products

Qty. Tonnes
Value—Rs. in lakhs

| Items | 1972-73 | | 1973-74 | | 1974-75 | | 1975-76 | | 1976-77 | | 1977-78 | | 1978-79 | |
|-----------------------|-------------|--------------|-------------|--------------|-------------|--------------|-------------|--------------|--------------|---------------|--------------|---------------|--------------|---------------|
| | Qty. (2) | Value (3) | Qty. (4) | Value (5) | Qty. (6) | Value (7) | Qty. (8) | Value (9) | Qty. (10) | Value (11) | Qty. (12) | Value (13) | Qty. (14) | Value (15) |
| Coir Fibre | 298 | 4.62 | 276 | 3.77 | 161 | 3.05 | 266 | 6.94 | 134 | 2.88 | 55 | 1.48 | 35 | 1.17 |
| Coir Yarn | 31908 | 818.18 | 29373 | 822.01 | 24401 | 826.71 | 22970 | 1002.19 | 26567 | 1052.32 | 22639 | 910.89 | 23536 | 1012.75 |
| Coir Mats | 12749 | 526.26 | 12302 | 573.28 | 11322 | 684.53 | 7748 | 562.48 | 9582 | 735.18 | 10748 | 829.13 | 10954 | 904.79 |
| Coir Mattings, Rugs | 3648 | 132.53 | 3457 | 140.40 | 5049 | 263.29 | 5276 | 337.12 | 7020 | 462.00 | 8044 | 627.25 | 8041 | 648.71 |
| Coir Rope | 104 | 1.64 | 140 | 2.84 | 138 | 3.47 | 269 | 6.70 | 185 | 5.42 | 160 | 4.75 | 72 | 2.65 |
| Curled Coir | 773 | 9.81 | 1208 | 15.49 | 762 | 10.40 | 1014 | 19.52 | 868 | 19.48 | 789 | 16.67 | 412 | 8.35 |
| Rubberised Coir goods | .. | 0.01 | 3 | 0.39 | 1 | 0.17 | 1 | 0.25 | 1 | 0.27 | 8 | 1.67 | 7 | 0.90 |
| Total | 49480 | 1493.05 | 46759 | 1558.18 | 41834 | 1753.62 | 37284 | 1935.20 | 44357 | 2277.55 | 42443 | 2381.84 | 43065 | 2579.32 |

APPENDIX 8.6

Export of Coir and Coir Products from Kerala and India

(Quantity in tonnes)

(Value in Rs. lakhs)

| Year | Kerala | | India | |
|---------|--------|---------|-------|---------|
| | Qty. | Value | Qty. | Value |
| 1976-77 | 43797 | 2255.13 | 44356 | 2277.55 |
| 1977-78 | 42219 | 2377.18 | 42444 | 2391.84 |
| 1978-79 | 42754 | 2557.36 | 43065 | 2579.31 |

APPENDIX 8.7

Export of Coir and Coir Products from Kerala Ports

(Quantity in Tonnes)

(Value in Rs. lakhs)

| Port | 1976-77 | | 1977-78 | | 1978-79 | |
|-------------------------|---------|----------|---------|----------|---------|----------|
| | Qty. | Value | Qty. | Value | Qty. | Value |
| Alleppey | .. | .. | 5,834 | 255.44 | 2,609 | 106.63 |
| Cochin | 43,582 | 2,246.86 | 35,876 | 2,106.05 | 39,832 | 2,438.63 |
| Kozhikode | 352 | 11.16 | 505 | 15.59 | 313 | 12.11 |
| Total from Kerala Ports | 43,934 | 2,258.02 | 42,215 | 2,377.08 | 42,754 | 2,557.37 |
| Others | 422 | 19.53 | 229 | 14.76 | 311 | 21.94 |
| Total | 44,356 | 2,277.55 | 42,444 | 2,391.84 | 43,065 | 2,579.31 |

APPENDIX 8.8

Export of Coffee from the Cochin Port and India

| Year | Cochin Port | | India | |
|---------|------------------|--------------------|------------------|--------------------|
| | Quantity in M.T. | Value in Rs. lakhs | Quantity in M.T. | Value in Rs. lakhs |
| 1970-71 | 17631 | 1346.68 | 32189 | 2511.00 |
| 1971-72 | 19423 | 1166.52 | 35695 | 2207.00 |
| 1972-73 | 24913 | 1761.49 | 50855 | 3293.00 |
| 1973-74 | 41791 | 4050.13 | 52688 | 4601.00 |
| 1974-75 | 31710 | 2919.29 | 49500 | 5136.00 |
| 1975-76 | 21455 | 2104.00 | 59386 | 6665.00 |
| 1976-77 | 13449 | 3356.00 | 47522 | 11405.00 |
| 1977-78 | 15050 | 5768.00 | 55827 | 2300.00 |
| 1978-79 | 24006 | 5009.00 | 66369 | 1581.00 |

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 |

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 |

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 | 2805 | 4112 | 6917 |
| 1969-70 | 2805 | 4123 | 6922 |
| 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 | 2888 | 4109 | 6992 |
| 1977-78 | 2849 | 4120 | 6969 |
| 1978-79 | 2846 | 4124 | 6970 |
| 1979-80 | 2846 | 4124 | 6970 |

APPENDIX 9.4
Standard-wise Strength of Students—1978-79

| Standard | Government Schools | | | Private Aided Schools | | | Private unaided Schools | | | Grand Total | | |
|--------------|--------------------|----------------|----------------|-----------------------|----------------|----------------|-------------------------|--------------|---------------|----------------|----------------|----------------|
| | Boys (2) | Girls (3) | Total (4) | Boys (5) | Girls (6) | Total (7) | Boys (8) | Girls (9) | Total (10) | Boys (11) | Girls (12) | Total (13) |
| I | 148453 | 136434 | 284887 | 185008 | 180161 | 365169 | 2755 | 2554 | 5309 | 336216 | 319149 | 655365 |
| II | 155100 | 149161 | 304261 | 205400 | 188254 | 393654 | 2898 | 2519 | 5417 | 363398 | 339934 | 703332 |
| III | 153909 | 142070 | 295979 | 184038 | 173362 | 357400 | 2646 | 2292 | 5938 | 340593 | 317724 | 658317 |
| IV | 144981 | 134906 | 279887 | 178618 | 164344 | 342962 | 2115 | 2024 | 4139 | 325714 | 301274 | 626988 |
| V | 111042 | 100467 | 211509 | 192880 | 171595 | 364475 | 1913 | 1739 | 3652 | 305835 | 273801 | 579636 |
| VI | 111212 | 89895 | 201107 | 179442 | 169642 | 349084 | 2015 | 1809 | 3824 | 297669 | 261346 | 554015 |
| VII | 105802 | 85869 | 191671 | 191836 | 175514 | 367350 | 1974 | 2081 | 4055 | 299612 | 263464 | 563076 |
| VIII | 105049 | 90854 | 195903 | 161265 | 147394 | 308659 | 2953 | 2607 | 5560 | 269267 | 240855 | 510122 |
| IX | 77695 | 68075 | 145770 | 129505 | 121925 | 251430 | 2307 | 2004 | 4311 | 209507 | 192004 | 401511 |
| X | 55418 | 49327 | 104745 | 89292 | 88350 | 177642 | 1821 | 1562 | 3383 | 146531 | 139239 | 285770 |
| Total | 1168661 | 1047058 | 2215719 | 1697284 | 1580541 | 3277825 | 23397 | 21191 | 44588 | 2889342 | 2648790 | 5538132 |

APPENDIX 3.3
Standard Wise Strength of Students 1979-80

| Standard | Government Schools | | | Private Aided Schools | | | Private Unaided Schools | | | Grand Total | | |
|----------|--------------------|---------|---------|-----------------------|---------|---------|-------------------------|-------|-------|-------------|---------|---------|
| | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total |
| | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| I | 142484 | 134509 | 276993 | 189508 | 181350 | 370858 | 3524 | 3362 | 6886 | 335516 | 319221 | 654737 |
| II | 151389 | 140994 | 292383 | 192123 | 182736 | 374859 | 3553 | 3368 | 6921 | 347065 | 327098 | 674163 |
| III | 153274 | 143495 | 296769 | 186068 | 181157 | 367225 | 3455 | 3184 | 6639 | 342797 | 327896 | 670693 |
| IV | 146549 | 134312 | 280861 | 185785 | 175834 | 361619 | 3017 | 2839 | 5856 | 335351 | 312985 | 648336 |
| V | 109577 | 96924 | 206501 | 191281 | 178298 | 369579 | 2877 | 2635 | 5512 | 303735 | 277857 | 581592 |
| VI | 99690 | 88795 | 188485 | 183456 | 172168 | 355624 | 2791 | 2533 | 5324 | 285937 | 263496 | 549433 |
| VII | 97637 | 85689 | 183326 | 184418 | 166729 | 351147 | 2531 | 2300 | 4831 | 284586 | 254718 | 539304 |
| VIII | 104610 | 88867 | 193477 | 163164 | 145471 | 308635 | 2640 | 3054 | 5694 | 270414 | 237392 | 507806 |
| IX | 91133 | 81889 | 173022 | 145636 | 137508 | 283144 | 2358 | 2737 | 5095 | 239127 | 222134 | 461261 |
| X | 58464 | 53895 | 112359 | 95346 | 94537 | 189883 | 1742 | 2012 | 3754 | 155552 | 150444 | 305996 |
| Total | 1154807 | 1049369 | 2204176 | 1716785 | 1615788 | 3332573 | 28488 | 28024 | 56512 | 2900080 | 2693181 | 5593261 |

APPENDIX 9.6

*Progress of Enrolment in the Different Stages of School Education
Primary 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 |
| 1966-77 | 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 | 750198 | 227 | 4979731 | 152 |
| 1972-73 | 4375389 | 149 | 780886 | 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 |

APPENDIX 9.7

Number of Students Appeared and Passed the S.S.L.C. Examination in 1978 and 1979 (New and Old Schemes Together)

| 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 1978 | 1,83,763 | 1,67,103 | 3,50,866 | 76,475 | 74,358 | 1,50,833 |
| September 1978 | 40,313 | 31,366 | 71,679 | 7,545 | 5,366 | 12,911 |
| March 1979 | 1,92,175 | 1,82,596 | 3,74,771 | 81,944 | 81,068 | 1,63,012 |
| September 1979 | 43,533 | 37,697 | 81,230 | 7,082 | 5,527 | 12,609 |

APPENDIX 9.8

Distribution of Teachers (1978-79)

| Section | No. of teachers |
|---------------|-----------------|
| Lower Primary | 74,915 |
| Upper Primary | 57,584 |
| Secondary | 41,281 |
| Training | 465 |
| Total | 1,74,245 |

APPENDIX 9.9

Number of Arts and Science Colleges and Training Colleges Affiliated to the University of Kerala and Calicut, District-wise 1978-79

| District | No. of Arts and Science Colleges | | | No. of Training Colleges | | |
|---------------|----------------------------------|------------|------------|--------------------------|-----------|-----------|
| | Govt. | Private | Total | Govt. | Private | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1. Trivandrum | 5 | 11 | 16 | 1 | 2 | 3 |
| 2. Quilon | .. | 13 | 13 | .. | 2 | 2 |
| 3. Alleppey | .. | 14 | 14 | .. | 3 | 3 |
| 4. Kottayam | 1 | 16 | 17 | .. | 4 | 4 |
| 5. Idukki* | 1 | 1 | 2 | .. | .. | .. |
| 6. Ernakulam | 2 | 15 | 17 | .. | 2 | 2 |
| 7. Trichur | 3 | 12 | 15 | 1 | .. | 1 |
| 8. Palghat | 3 | 5 | 8 | .. | 1 | 1 |
| 9. Malappuram | 2 | 4 | 6 | .. | .. | .. |
| 10. Kozhikode | 5 | 7 | 12 | 1 | 1 | 2 |
| 11. Cannanore | 4 | 6 | 10 | 1 | .. | 1 |
| Total | 26 | 104 | 130 | 4 | 15 | 19 |

* One private College viz. D.B. College, Nariampara has been abolished in 1978-79 and one Government College at Kattappana has been newly started during 1978-79.

APPENDIX 9.10

No. of Colleges Affiliated to the Universities of Kerala 1978-79

| Colleges | Kerala University | | | Cochin University | | | Calicut University | | | Total | | |
|------------------------------|-------------------|-----------|------------|-------------------|-----------|----------|--------------------|-----------|-----------|-----------|------------|------------|
| | Govt. | Private | Total | Govt. | Private | Total | Govt. | Private | Total | Govt. | Private | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 1. Arts and Science Colleges | 9 | 70 | 79 | .. | .. | .. | 17 | 34 | 51 | 26 | 104 | 130 |
| 2. Training Colleges | 1 | 13 | 14 | .. | .. | .. | 3 | 2 | 5 | 4 | 15 | 19 |
| 3. Engineering Colleges | 1 | 2 | 3 | 1 | .. | 1 | 1 | 1 | 2 | 3 | 3 | 6 |
| 4. Medical Colleges | 3 | .. | 3 | .. | .. | .. | 1 | .. | 1 | 4 | .. | 4 |
| 5. Ayurveda Colleges | 2 | .. | 2 | .. | .. | .. | .. | 2 | 2 | 2 | 2 | 4 |
| 6. Law Colleges | 2 | 1 | 3 | .. | .. | .. | 1 | .. | 1 | 3 | 1 | 4 |
| Total | 18 | 86 | 104 | 1 | .. | 1 | 23 | 39 | 62 | 42 | 125 | 167 |

APPENDIX 9.11

Enrolment by Stages in Arts and Science Colleges in the State 1978-79

| Stages | Enrolment | | |
|----------------------|-----------|-------|---------------|
| | Boys | Girls | Total |
| Pre-Degree | 56846 | 53391 | 110237 |
| Degree | 39095 | 38453 | 77548 |
| Post Graduate Degree | 2369 | 2646 | 5015* 1224 |
| Total | 98310 | 94490 | 1,94,024* |

* Including 1224. students in the University Departments.

APPENDIX 9.12

Number of Students and Teachers in Colleges Affiliated to the University of Kerala 1978-79

| Sl. No. | Category of Colleges | No. of Colleges | No. of Students | | | No. of Teachers | | |
|---------|---------------------------|-----------------|-----------------|--------|----------|-----------------|--------|-------|
| | | | Boys | Girls | Total | Male | Female | Total |
| 1. | Arts and Science Colleges | 79 | 64,783 | 68,230 | 1,33,013 | 3795 | 1835 | 5630 |
| 2. | Teacher Training Colleges | 14 | 518 | 1,263 | 1,781 | 77 | 42 | 119 |
| 3. | Engineering Colleges | 3 | 1950 | 445 | 2,395 | 287 | 31 | 318 |
| 4. | Medical Colleges | 3 | 1585 | 967 | 2,552 | 396 | 253 | 649 |
| 5. | Ayurveda Colleges | 2 | 245 | 197 | 442 | 39 | 33 | 72 |
| 6. | Law Colleges | 3 | 1528 | 271 | 1,799 | 33 | 16 | 49 |
| | Total | 104 | 70,609 | 71,373 | 1,41,982 | 4627 | 2210 | 6837 |

APPENDIX 9.13

Number of Post Graduate and Research Students in the University Departments of Kerala (1978-79)

| Name of Department | Kerala University | | Cochin University | | Calicut University | | Total | |
|----------------------------|-------------------------------|----------------------|-------------------------------|----------------------|-------------------------------|----------------------|---------------|----------------------|
| | Post Graduate regular courses | Research (full time) | Post Graduate regular courses | Research (full time) | Post Graduate regular courses | Research (full time) | Post Graduate | Research (full time) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1. Department of Economics | 47 | 9 | .. | .. | 23 | 2 | 70 | 11 |
| 2. „ Politics | 49 | 20 | .. | .. | .. | .. | 49 | 20 |
| 3. „ Psychology | 32 | 10 | .. | .. | 19 | .. | 51 | 10 |
| 4. „ Sociology | 33 | 7 | .. | .. | .. | .. | 33 | 7 |
| 5. „ History | 33 | 12 | .. | .. | 29 | 9 | 62 | 21 |
| 6. „ Philosophy | .. | .. | .. | .. | 24 | 4 | 24 | 4 |
| 7. „ English | 43 | 7 | .. | .. | 57 | 14 | 188 | 21 |
| 8. „ German | 7 | .. | 64 | .. | .. | .. | | |
| 9. „ Russian | 17 | .. | .. | .. | .. | .. | | |
| 10. „ Sanskrit | .. | 5 | .. | .. | 7 | .. | 7 | 5 |

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|-------------------------------------|------------|------------|------------|-----------|------------|------------|-------------|------------|
| 11. Department of Malayalam | 30 | 20 | .. | .. | 28 | 14 | 58 | 34 |
| 12. „ Tamil | 10 | 17 | .. | .. | .. | .. | 10 | 17 |
| 13. „ Hindi | .. | .. | 19 | 22 | 29 | 16 | 48 | 38 |
| 14. „ Arabic | .. | .. | .. | .. | 10 | 6 | 10 | 6 |
| 15. „ Linguistics | 38 | 30 | .. | .. | .. | .. | 38 | 30 |
| 16. „ Mathematics | 34 | 9 | 9 | 8 | 17 | .. | 60 | 17 |
| 17. „ Statistics | 27 | 4 | .. | .. | .. | .. | 27 | 4 |
| 18. „ Physics | 20 | 9 | 26 | .. | 23 | 5 | 69 | 14 |
| 19. „ Chemistry | .. | 17 | .. | .. | 21 | 8 | 21 | 25 |
| 20. „ Applied Chemistry | .. | .. | 11 | 7 | .. | .. | 11 | 7 |
| 21. „ Bio-Chemistry | 13 | 11 | .. | .. | .. | .. | 13 | 11 |
| 22. „ Botany | 20 | 27 | .. | .. | 23 | 18 | 43 | 45 |
| 23. „ Zoology | .. | 26 | .. | .. | 18 | 11 | 18 | 37 |
| 24. „ Physiology/Micro biology | .. | .. | .. | .. | 6 | .. | 6 | .. |
| 25. „ Marine Science | .. | .. | 46 | 15 | .. | .. | 46 | 15 |
| 26. „ Aquatic Biology and Fisheries | .. | 30 | .. | .. | .. | .. | .. | 30 |
| 27. „ Industrial Fisheries | .. | .. | 31 | .. | .. | .. | 31 | .. |
| 28. „ Geology | 12 | 1 | .. | .. | .. | .. | 12 | 1 |
| 29. „ Education | 38 | 13 | .. | .. | 23 | 3 | 61 | 16 |
| 30. „ Commerce | | | | | | | | |
| (i) M.Com. | .. | .. | .. | .. | 29 | .. | 29 | .. |
| (ii) M.B.A. | .. | .. | 63 | .. | .. | .. | 63 | .. |
| (iii) D.B.A. | .. | .. | .. | .. | 17 | .. | 17 | .. |
| 31. „ Law | .. | .. | 20 | 9 | .. | .. | 20 | 9 |
| 32. „ Journalism | 23 | .. | .. | .. | .. | .. | 23 | .. |
| 33. „ Electronics | .. | .. | 6 | .. | .. | .. | 6 | .. |
| Total | 526 | 284 | 295 | 61 | 403 | 110 | 1224 | 455 |

APPENDIX 9.14

No. of Institutions and Students in the Professional Colleges of Kerala 1978-79

| Category of Colleges | No. of Colleges | Boys | Girls | Total |
|------------------------------|-----------------|-------------|-------------|--------------|
| (1) | (2) | (3) | (4) | (5) |
| 1. Teacher Training Colleges | 19 | 799 | 1540 | 2339 |
| 2. Engineering Colleges | 6 | 3402 | 644 | 4046 |
| 3. Medical Colleges | 4 | 2351 | 1353 | 3704 |
| 4. Ayurveda Colleges | 4 | 399 | 290 | 689 |
| 5. Law Colleges | 4 | 1703 | 341 | 2044 |
| Total | 37 | 8654 | 4168 | 12822 |

APPENDIX 9.15
Polytechnics in Kerala

| Name of District | Number of Polytechnics | | | | | |
|------------------|------------------------|---------|-------|------------|---------|-------|
| | 1978-79 | | | 1979-80 | | |
| | 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 | .. | .. | .. | .. | .. | .. |
| 6. Ernakulam | 1 | .. | 1 | 1 | .. | 1 |
| 7. Trichur | 3 | 1 | 4 | 3 | 1 | 4 |
| 8. Palghat | 1 | .. | 1 | 1 | .. | 1 |
| 9. Malappuram | 1 | 1 | 2 | 1 | 1 | 2 |
| 10. Kozhikode | 2 | .. | 2 | 2 | .. | 2 |
| 11. Cannanore | 1 | 1 | 2 | 1 | 1 | 2 |
| Kerala | 12 | 6 | 18 | 12 | 6 | 18 |

APPENDIX 9.16

Number of Students and Teachers in Polytechnics in Kerala 1978-79

| Type of Management | Enrolment | Teachers |
|--------------------|-----------|----------|
| (1) | (2) | (3) |
| Government | 4577 | 610 |
| Private | 2260 | 278 |
| Total | 6837 | 888 |

APPENDIX 9.17

No. of Government I. T. I.s and Enrolment of Students in Kerala (1979)

| District | No. of I. T. I.s | Enrolment of Students |
|---------------|------------------|-----------------------|
| 1. Trivandrum | 4 | 2432 |
| 2. Quilon | 2 | 1464 |
| 3. Alleppey | 1 | 128 |
| 4. Kottayam | 1 | 752 |
| 5. Idukki | 1 | 136 |
| 6. Ernakulam | 1 | 732 |
| 7. Trichur | 1 | 708 |
| 8. Palghat | 1 | 748 |
| 9. Malappuram | 1 | 236 |
| 10. Kozhikode | 1 | 520 |
| 11. Cannanore | 1 | 828 |
| Total | 15 | 8684 |

APPENDIX 9.18

Progress of Expenditure on General School Education

| Year | Rs. (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 |
| 1978-79R.E | 136.27 | 809 |

APPENDIX 9.19

Cost per Pupil per year in the Different Stages of School Education

| Year | (Amount in Rs.) | |
|---------------|-----------------|-----------------|
| | 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 R. E. | 213.11 | 361.87 |

APPENDIX 9.20

Per capita Government Expenditure on Education in Kerala

| Year | Population (Lakhs) | Government Expenditure on Education (Rs. in 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 | 16382.35 R. E. | 66.53 |

Medical Institutions and Beds in Kerala as on 31-3-1979

| Districts | Hospitals | | P.H. Centres & Medical College Units | | Dispensaries | | M.C.H. Centres | | T.B. Centres & Clinics | | Grant in aid Institution | | Others | | Total | | |
|---------------|-----------------|----------|--------------------------------------|----------|--|--------|----------------|-----------------|------------------------|-----------------|--------------------------|-----------------|----------|-----------------|----------|-----------------|-------|
| | Institution No. | Beds No. | Institutions No. | Beds No. | Started Under Special employment programme | Others | Beds No. | Institution No. | Beds No. | Institution No. | Beds No. | Institution No. | Beds No. | Institution No. | Beds No. | Institution No. | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) |
| 1. Trivandrum | 19 | 4746 | 18 | 186 | 21 | 29 | 166 | 1 | 20 | 1 | 28 | 3 | 452 | .. | .. | 92 | 5578 |
| 2. Quilon | 12 | 1556 | 20 | 250 | 22 | 34 | 120 | .. | .. | 4 | 86 | 1 | 120 | .. | .. | 93 | 2132 |
| 3. Alleppey | 13 | 3061 | 19 | 201 | 16 | 32 | 91 | .. | .. | 2 | 12 | 3 | 575 | .. | .. | 85 | 3940 |
| 4. Kottayam | 13 | 2133 | 15 | 178 | 12 | 20 | 127 | .. | .. | 2 | 48 | 1 | 209 | .. | .. | 63 | 2686 |
| 5. Idukki | 4 | 220 | 4 | 46 | 12 | 23 | 110 | .. | .. | .. | .. | .. | .. | .. | .. | 43 | 376 |
| 6. Ernakulam | 20 | 2320 | 17 | 190 | 14 | 34 | 198 | .. | .. | 4 | 40 | 2 | 571 | .. | .. | 91 | 3249 |
| 7. Trichur | 19 | 3028 | 18 | 216 | 17 | 28 | 61 | .. | .. | 1 | .. | 1 | 170 | 2 | .. | 86 | 3475 |
| 8. Palghat | 10 | 970 | 11 | 129 | 16 | 35 | 162 | .. | .. | 1 | 52 | .. | .. | 1 | .. | 74 | 1313 |
| 9. Malappuram | 8 | 775 | 12 | 114 | 17 | 30 | 74 | .. | .. | 2 | 52 | .. | .. | 1 | .. | 70 | 1015 |
| 10. Kozhikode | 10 | 3348 | 15 | 138 | 20 | 28 | 157 | .. | .. | 1 | .. | .. | .. | .. | .. | 74 | 3643 |
| 11. Cannanore | 13 | 2131 | 13 | 199 | 34 | 64 | 210 | .. | .. | 2 | .. | .. | .. | 1 | .. | 127 | 2540 |
| Kerala | 141 | 24288 | 162 | 1847 | 201 | 357 | 1476 | 1 | 20 | 20 | 318 | 11 | 2018 | 5 | .. | 898 | 29947 |

Source: Director of Health Services, Kerala.

APPENDIX 9.22

District-wise Distribution of Institutions and Beds under Indian System of Medicine as on 31-3-1979

| District | Hospitals* | | | Total No. of Institution |
|------------|---------------------|-------------|---------------------|--------------------------|
| | Number of Hospitals | No. of beds | No. of Dispensaries | |
| (1) | (2) | (3) | (4) | (5) |
| Trivandrum | 8 | 404 | 38 | 46 |
| Quilon | 5 | 100 | 38 | 43 |
| Alleppey | 7 | 96 | 41 | 48 |
| Kottayam | 6 | 90 | 20 | 26 |
| Idukki | 1 | 20 | 16 | 17 |
| Ernakulam | 9 | 174 | 30 | 39 |
| Trichur | 11 | 178 | 56 | 67 |
| Palghat | 3 | 80 | 37 | 40 |
| Malappuram | 7 | 110 | 36 | 43 |
| Kozhikode | 5 | 60 | 35 | 40 |
| Cannanore | 6 | 126 | 59 | 65 |
| Total | 68 | 1438 | 406 | 474 |

*Including College Hospitals at Trivandrum and Ernakulam.

APPENDIX 9.23

District-wise Distribution of Institutions and Beds under Homoeopathic System of Medicine as on 31-3-1979

| District | Hospitals | | Number of Dispensaries | Total No. of Institutions |
|------------|------------------|-------------|------------------------|---------------------------|
| | No. of Hospitals | No. of beds | | |
| (1) | (2) | (3) | (4) | (5) |
| Trivandrum | 1 | 50 | 11 | 12 |
| Quilon | .. | .. | 14 | 14 |
| Alleppey | 1 | 25 | 15 | 16 |
| Kottayam | 1 | 50 | 14 | 15 |
| Idukki | 1 | 25 | 10 | 11 |
| Ernakulam | 1 | 25 | 11 | 12 |
| Trichur | 1 | 25 | 7 | 8 |
| Malappuram | 1 | 25 | 13 | 14 |
| Palghat | 1 | 25 | 12 | 13 |
| Kozhikode | 1 | 50 | 10 | 11 |
| Cannanore | 1 | 25 | 16 | 17 |
| Total | 10 | 325 | 133 | 143 |

APPENDIX 9.24

Achievements under Family Welfare Programme for the year 1977-78 & 1978-79

| District | 1977-78 | | | | 1978-79 | | | |
|---------------|---------|--------|------------------|--------|---------|--------|--------------------------------|--------|
| | Vas. | P.P.S. | Induced Abortion | I.U.D. | Vas. | P.P.S. | Induced (Provisional) abortion | I.U.D. |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1. Trivandrum | 1563 | 11874 | 7713 | 553 | 1472 | 12632 | 7387 | 1339 |
| 2. Quilon | 1053 | 9992 | 2043 | 1272 | 801 | 9588 | 1780 | 995 |
| 3. Alleppey | 2659 | 5887 | 2354 | 2295 | 3528 | 7294 | 2307 | 1858 |
| 4. Kottayam | 1281 | 5928 | 4328 | 1950 | 885 | 6759 | 4641 | 2197 |
| 5. Idukki | 605 | 1514 | 136 | 414 | 354 | 1112 | 96 | 378 |
| 6. Ernakulam | 2218 | 7920 | 3641 | 1476 | 1912 | 8885 | 1760 | 1511 |
| 7. Trichur | 1936 | 6519 | 2966 | 550 | 1619 | 8733 | 2479 | 540 |
| 8. Palghat | 473 | 2275 | 664 | 863 | 361 | 2666 | 688 | 943 |
| 9. Malappuram | 502 | 2205 | 254 | 567 | 506 | 2904 | 220 | 1029 |
| 10. Kozhikode | 978 | 8132 | 2858 | 253 | 2132 | 9347 | 3164 | 688 |
| 11. Cannanore | 1920 | 4979 | 1249 | 478 | 1561 | 5039 | 618 | 617 |
| Kerala | 15188 | 67225 | 28206 | 10671 | 15131 | 74959 | 25140 | 12095 |

APPENDIX 9.25

District-wise Progress of Works under Urban Water Supply Schemes for the year 1978-79

| District | No. of Schemes in Operation at the end of 1978-79 | No. of Schemes Completed during 1978-79 | No. of Schemes under Construction at the end of 1978-79 | No. of Towns having protected Water supply at the end of 1978-79 |
|---------------|---|---|---|--|
| (1) | (2) | (3) | (4) | (5) |
| 1. Trivandrum | 3 | Nil | Nil | 3 |
| 2. Quilon | 1 | .. | 1 | 1 |
| 3. Alleppey | 5 | .. | 2 | 5 |
| 4. Kottayam | 3 | .. | 2 | 3 |
| 5. Idukki | .. | .. | .. | .. |
| 6. Ernakulam | 5 | .. | .. | 5 |
| 7. Trichur | 4 | .. | 2 | 4 |
| 8. Palghat | 2 | .. | 1 | 2 |
| 9. Malappuram | 1 | .. | 2 | 1 |
| 10. Kozhikode | 2 | .. | Nil | 2 |
| 11. Cannanore | 3 | .. | Nil | 3 |
| Total | 29 | Nil | 10 | 29 |

APPENDIX 9.26

District-wise Progress of Works under Rural Water Supply Schemes for the year 1978-79

| District | No. of schemes in operation at the end of 1977-78 | No. of Schemes completed during 1978-79 | No. of schemes under construction at the end of 1978-79 |
|---------------|---|---|---|
| (1) | (2) | (3) | (4) |
| 1. Trivandrum | 62 | 2 | 19 |
| 2. Quilon | 52 | 5 | 35 |
| 3. Alleppey | 63 | 5 | 33 |
| 4. Kottayam | 92 | 9 | 31 |
| 5. Idukki | 19 | 2 | 13 |
| 6. Ernakulam | 62 | 6 | 26 |
| 7. Trichur | 63 | 8 | 30 |
| 8. Palghat | 71 | 4 | 12 |
| 9. Malappuram | 35 | 5 | 25 |
| 10. Kozhikode | 57 | 3 | 21 |
| 11. Cannanore | 87 | 10 | 27 |
| Total | 663 | 59 | 272 |

APPENDIX 9.27

Water Supply Schemes taken up with Life Insurance Corporation Fund

| District | Schemes in Operation at the end of 1977-78 | | Schemes Completed during 1978-79 | | Schemes under Construction at the end of 1978-79 | | Expenditure during 1978-1979 (Rs. in lakhs) | |
|---------------|--|-------|----------------------------------|-------|--|-------|---|---------|
| | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural** |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1. Trivandrum | 3 | 24 | Nil | .. | .. | .. | 152.71 | 1.98 |
| 2. Quilon | .. | 13 | .. | .. | 1 | 4 | 8.60 | 14.78 |
| 3. Alleppey | 5 | 17 | .. | .. | 2* | 3 | 19.40 | 8.30 |
| 4. Kottayam | 2 | 29 | .. | .. | 1+1* | 2 | 34.60 | 3.25 |
| 5. Idukki | .. | 3 | .. | .. | .. | .. | .. | Nil. |
| 6. Ernakulam | 5 | 17 | .. | .. | .. | .. | 112.65 | Nil. |
| 7. Trichur | 3 | 20 | .. | .. | .. | 4 | 97.33 | 1.64 |
| 8. Palghat | 1 | 17 | .. | 1 | 1+1* | 1 | 48.96 | 2.30 |
| 9. Malappuram | 1 | 19 | .. | 1 | 1* | 1 | 27.45 | 4.07 |
| 10. Kozhikode | 2 | 12 | .. | .. | 1+1* | .. | 8.50 | 0.10 |
| 11. Cannanore | 3 | 32 | .. | .. | .. | 1 | 4.50 | 0.25 |
| Total | 25 | 203 | Nil | 2 | 10 | 16 | 514.70 | 36.67 |

* Augmentation scheme

** No assistance from L.I.C. was availed for rural water supply schemes during 1978-79.

Source. Public Health Engineering Department, Kerala.

APPENDIX 9.28

District-wise Progress of Work under Drainage Scheme for the Year 1978-79

| District | Schemes in Operation at the end of 1977-78 | Schemes Completed during the year 1978-79 | Schemes Under Con- struction at the end of the year 1978-79 |
|---------------|---|--|---|
| (1) | (2) | (3) | (4) |
| 1. Trivandrum | 1 | Nil | 1 |
| 2. Quilon | .. | do. | 1 |
| 3. Alleppey | .. | do. | .. |
| 4. Kottayam | .. | do. | .. |
| 5. Idukki | .. | do. | .. |
| 6. Ernakulam | 1 | do. | 1 |
| 7. Trichur | .. | do. | 1 |
| 8. Palghat | .. | do. | .. |
| 9. Malappuram | .. | do. | .. |
| 10. Kozhikode | .. | do. | 1 |
| 11. Cannanore | .. | do. | .. |
| Total | 2 | Nil | 5 |

Source. Public Health Engineering Department, Kerala.