



GOVERNMENT OF KERALA

**ECONOMIC
REVIEW
1978**

STATE PLANNING BOARD
TRIVANDRUM

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CHAPTER I
GENERAL REVIEW

Trends in National Economy

Though overall economic trends in the country during 1978 have been characterised by a fair degree of stability, and may be interpreted as a further enlargement of elements favourable to output expansion, certain details of the general economic picture have, however, been less favourable. While during 1977-78, gross national income showed a marked increase of 7.4 per cent over the previous year's performance, the rate of growth expected during 1978-79 is only about half of what has been achieved during 1977-78. This is largely because of the fact that agriculture could show only a marginal increase of 2 per cent during 1978-79 over the record increase of 13.9 per cent in 1977-78. Although increase in industrial production during 1978-79 is expected to be around 7.5 per cent as compared with only 3.9 per cent during 1977-78, capacity utilisation in a number of industries is yet to show improvement. In industries such as copper, diesel engines, steel castings etc. capacity utilisation remained well below 50 per cent.

1.2 In regard to the performance of public sector undertakings, the situation in 1977-78 as brought out by the annual report of the Bureau of Public Enterprises does not make happy reading. The pre-tax profits in that year dropped sharply to Rs. 236 crores from the previous year's level of Rs. 476 crores. The

growth of investment in public sector enterprises slipped to 15.8 per cent from 23.7 per cent in the previous year. There was a serious setback in capacity utilisation, and the number of units working at less than half the capacity increased from 17 to 27. There were, of course, attenuating circumstances. Industrial unrest, power shortages, etc., all took their toll. But these factors also affected the private sector, which nevertheless managed to improve its profits in 1977-78.

1.3 The performance on the export front received a setback during both years 1977-78 and 1978-79. As compared with a record increase of 27.2 per cent in 1976-77, the growth rate was only 4.5 per cent in 1977-78, and is expected to register a negative rate of 2.3 per cent during 1978-79. With imports showing an increase of 19.6 per cent and 21.2 per cent respectively during these two years, the trade picture has turned out to be unfavourable, the only redeeming feature being the comfortable position in regard to the foreign exchange reserves. This again may be interpreted as the country's inability to use these reserves to the advantage of her economy. The broad trends in the national economy in recent years are summarised in Table 2.1. A brief review of developments in major sectors of the economy is set out in subsequent paragraphs.

TABLE 1.1
Selected Economic Indicators

Indicator	Percentage Change over Previous Year						
	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Gross National Product at 1970-71 Prices	(-)1.1	5.0	0.8	8.9	1.6	7.2*	3.5†
2. Agricultural Production	(-)8.0	9.9	(-)3.2	15.2	(-)7.0	13.9	2.0†
3. Foodgrains Production	(-)8.2	7.8	(-)5.4	22.0	(-)9.0	14.8	2.0†
4. Industrial Production	4.0	2.2	2.6	6.0	9.5	3.9	7.5
5. Electricity Generated	5.9	3.3	5.2	12.9	11.8	3.4	12.9
6. Wholesale Prices	10.0	20.2	25.2	(-)1.1	2.1	5.2	(-)0.6
7. Money Supply	16.6	15.5	6.9	11.3	20.3	14.7	12.0
8. Imports (in Current Prices)	2.4	38.3	52.9	16.5	(-)3.6	19.6	21.2
9. Exports (in Current Prices)	22.5	28.0	31.9	21.4	27.2	4.5	(-)2.3

Source: Economic Survey, 1978-79, Government of India.

* Quick Estimates

† Anticipated

National Income, Savings and Investment

1.4 At current prices, net national income during 1977-78 stood at Rs. 73,157 crores as compared with the previous year's figure of Rs. 66,561 crores. The per capita income in 1977-78 would work out to Rs. 1,163 as compared with Rs. 1081 in the previous year. In real terms, however, per capita income during 1976-77 and 1977-78 amounted to only Rs. 656 and Rs. 690 respectively. An analysis of the per capita national income trends during the last few years reveals certain disturbing trends. During 1970-71 to 1977-78, in four out of the seven years, the per capita income in real terms registered an absolute reduction while per capita consumption did the same in three years. As a result, the index of per capita income in 1977-78 stood at 108.6 (with base 1970-71=100), showing a compound growth rate of less than one per cent annually. More significantly, the index of per capita consumption stood at just 100.6 in 1977-78 and at 96 in the previous year. Except for 1971-72 and 1977-78, the index of per capita consumption always stood below 100, implying an absolute reduction in the per capita average real consumption over the level of 1970-71. Since there is ample evidence of rise in the consumption levels of the better-off sections of the population—for instance, in the impressive rise in the production of goods and services demanded by this section—the stagnant average consumption levels would indicate a further deterioration in the levels of living of the poor.

1.5 According to 'quick estimates' of the Central Statistical Organisation, the proportion of gross domestic capital formation in the gross domestic product at market prices fell from 21.8 per cent in 1976-77 to 21.3 per cent in 1977-78. This decline was due to a substantial fall in the inventories of food, steel and fertilisers in the public sector. On the savings front also, the proportion of gross savings in the gross

domestic product in 1977-78 fell to 22.4 per cent from 23.3 per cent in 1976-77. A special feature of the economy in very recent years has been the tendency for aggregate saving to grow at a faster rate than investment. While the index number of net domestic saving at current prices with 1970-71 as the base shot up to 319.4 in 1977-78, that of net domestic capital formation stood at 274.8 in the same year. For the three years from 1975-76 to 1977-78, net domestic saving as a proportion of net domestic product remained higher than the rate of net domestic capital formation. The difference between the two is reflected in the surplus in the current account of the country's balance of payments and the consequential outflow of saving abroad. According to the latest assessment of the Government of India, this discrepancy between savings and investment is likely to narrow down in 1979 thanks to the possibilities of larger imports financed through drawal of foreign exchange reserves.

Agriculture

1.6 Agricultural production which had experienced a decline in the previous year, registered marked improvement during 1977-78. The output of foodgrains at 125.6 million tonnes was 14.4 million tonnes higher than that in 1976-77 and 4.6 million tonnes more than in 1975-76. Out of the 14.4 million tonnes increase, rice alone contributed 10.8 million tonnes, representing an increase of 26 per cent over the previous year's production level. During the agricultural year 1978-79, production of foodgrains is expected to exceed the target of 126 million tonnes. In the commercial crop sector, production of oil seeds, ground nut, cotton and more importantly sugar, registered significant increases. Output of jute and mesta, however, did not show any increase. Trends in the production of important crops in recent years are set out below:

TABLE 1.2
Agricultural Production

Crop	(In million tonnes/bales*)						
	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Rice	43.07	39.58	44.05	39.58	48.74	41.92	52.68
Wheat	26.41	24.74	21.78	24.10	28.85	29.01	31.33
Other Cereals	24.60	23.13	28.83	26.13	30.41	28.86	29.80
Pulses	11.09	9.91	10.01	10.01	13.04	11.36	11.80
Foodgrains	105.17	97.03	104.67	99.83	121.03	111.17	125.60
Oilseeds (5 major)	8.75	6.86	8.85	8.53	9.91	7.82	8.99
Sugarcane (gur)	11.63	12.76	14.43	14.72	14.41	15.85	16.78
Cotton (lint)	6.95	5.74	6.31	7.16	5.95	5.84	7.10
Jute and Mesta	6.83	6.09	7.69	5.83	5.91	7.10	7.12

*170 kgs. each for cotton and 180 kgs. each for jute and mesta.

Industry

1.7 During 1977-78, industrial production increased only by 3.9 per cent due to slow down in basic metal, transport equipment and electricity generation sectors. However, during the latter part of 1978, there has been a recovery, and the rate of growth during 1978-79 is expected to be around 7.5 per cent. Electricity generation, food industries and textiles contributed to this pick up. However the performance of two major sectors of coal mining and steel has not been satisfactory due mainly to reasons such as the heavy floods that occurred last year and recurring shortages of power.

1.8 A new industrial policy was announced in December 1977 envisaging the setting up of District Industries Centres in a phased manner in order to promote widely dispersed development of cottage and small scale industries in rural areas and small towns. So far, 246 District Industries Centres have been sanctioned throughout the country. The Government of India would provide a non-recurring grant of Rs. 2 lakhs to each such Centre for the construction of building and Rs. 3 lakhs for meeting the expenditure on office equipment, vehicles, furniture, etc. The Central Government would also provide 75 per cent of the actual recurring establishment expenditure, subject to a ceiling of Rs. 3.75 lakhs per District Industries Centre per year.

1.9 Industrial licensing policies were streamlined and simplified during the year. On the basis of the recommendation of a Study Group set up for the purpose, the licensing policy was modified so as to raise the exemption limit from Rs. 1 crore to Rs. 3 crores to take account of the increase in investment costs. Procedures for obtaining clearances for the import of capital goods have also been simplified.

1.10 According to Government of India's latest Economic Survey, sickness in industry continued to cause concern. On the basis of quarterly returns received by the Reserve Bank of India from the Commercial Banks, at the end of 1977, there were 298 sick units and the credit locked up in such units was of the order of Rs. 859 crores. Textiles (other than National Textile Corporation Mills) and engineering industry accounted for more than half of the outstanding credit.

1.11 Employment in the organised sector constituted less than one-fourth of the total number of wage and salary earners. It stood at 21.09 million at the end of December, 1977, which was 3.3 per cent higher than the level a year before. The public sector accounted for as much as 14.15 million and the private sector's share was less than one third. The number

of mandays lost has tended to rise from the second quarter of 1977. The situation became worse during the second half of 1977 when total work-loss amounted to almost 14 million mandays. During the first half of 1978, though the situation showed some improvement, the number of mandays lost still remained high at 11.2 million, that is, an average of about 2 million mandays per month.

Prices

1.12 The price situation during 1978 was characterised by a fair degree of stability. The wholesale price index (1970-71=100) which stood at 182.9 in March, 1978 rose to 184.8 in December, 1978, an increase of 1 per cent. Food articles on the whole were somewhat cheaper though the prices of pulses increased by 3.1 per cent. On the other hand, the prices of manufactured products such as basic metals, rubber and rubber products, leather and leather products advanced appreciably. Floods that occurred in September, 1978 had an unfavourable impact on prices in the subsequent months. An important aspect to be noted is that the stability of the wholesale price index was in contrast with the movements in the consumer price index which rose from 321 in March 1978 to 335 in December, 1978 showing an increase of 4.4 per cent as against 1 per cent increase in wholesale prices.

1.13 Public distribution of foodgrains during 1977-78 (November-October) was 10.6 million tonnes, half a million tonnes less than the previous year, though procurement at about 11 million tonnes was of the same order. The distribution of sugar through fair price shops ceased from September, 1978 after the decision to decontrol it with effect from August, 1978. This has brought to an end the dual pricing policy first introduced in August, 1967.

1.14 The fairly satisfactory price situation in recent months does not, however, imply that inflationary pressures cannot raise their head in the near future. In particular, the significant increase in the liquidity of the system is a factor which can present a potential threat. However, the comfortable food and foreign exchange situation can provide a favourable atmosphere for the maintenance of price stability. It should, however, be noted that maintenance of stability has not been without a cost. The tangible costs are the substantial amounts of outlay on holding buffer stocks, and subsidies on the distribution of essential commodities at lower than economic prices.

Money and Banking

1.15 As at the end of January 12, 1979 money supply with the public stood at Rs. 20,582 crores, of which currency with the public amounted to Rs. 9,708 crores, the balance amount of Rs. 10,874 crores representing deposit money. This would represent an

increase of 12 per cent in the current year as compared to an 8.1 per cent increase in the corresponding period last year. The principal factor responsible for this rapid increase in money supply has been the growth of bank credit to the commercial sector. This increased by Rs. 3,347 crores as compared to Rs. 1,750 crores in the same period last year. On the other hand, bank credit to Government which was an important expansionary factor affecting money supply last year has shown a smaller increase of Rs. 703 crores in the current year so far against Rs. 1203 crores last year. Likewise, the increase in foreign exchange assets which had been a major factor contributing to an expansion in money supply in the past three years has not been so prominent. The growth of time deposits, which is an important contractionary factor in money supply expansion has been, however, lower at 19.5 per cent compared to 20.7 per cent last year.

1.16 In order to minimise the impact of these monetary resources on the economy, a restrictive monetary and credit policy has been pursued. Banks were required after June 1, 1978, to deposit with the Reserve Bank, in terms of rupees, half the amount of deposits accruing in the non-resident deposit accounts. Refinance facilities in respect of food credit were reduced and bank's entitlement to refinance to the extent of 1 per cent of demand and time liabilities was abolished in order to control the expansion of money supply. The statutory liquidity ratio was raised from 33 per cent of bank's total demand and time liabilities in the form of investments to 34 per cent, with effect from December, 1, 1978.

1.17 A review of the monetary situation in recent months would seem to indicate that the persistent increase in money supply, prospects of a smaller growth in real national income in 1978-79 compared with the previous year, and the continued excess liquidity with the banks are factors which have a potential to build up an inflationary situation. Any slow down in the growth process can seriously disturb prevailing price stability. It is, therefore, imperative to maintain strict fiscal and monetary discipline.

Foreign Trade

1.18 A notable feature on the external front of the economy during 1977-78 was the re-emergence of a trade deficit after a modest surplus in 1976-77. Exports during 1977-78 amounted to Rs. 5,374 crores while imports stood at Rs. 6,066 crores, resulting in a trade deficit of Rs. 692 crores, as against a nominal surplus of Rs. 69 crores, during 1976-77. Imports continued to increase in the current year also following import liberalisation, while export growth has slackened in the wake of recessionary situation and protectionist tendencies in the major industrialised countries. On the other hand, growth in net invisible

receipts comprising travel, transportation, private transfers, etc. continued to be buoyant, and as a consequence, the country's foreign exchange reserves showed a record increase during 1977-78. The increase, however, has slowed down in the current year. As at the end of January, 1979, the foreign exchange reserves of the country stood at Rs. 5081 crores.

1.19 Net inflow of external assistance during 1977-78 was lower at Rs. 467 crores compared with Rs. 844 crores in the previous year. Consequently, the proportion of imports financed by external assistance fell from 17 per cent in 1976-77 to less than 8 per cent in 1977-78. According to revised estimates, net external aid during the year 1978-79 is expected to increase to Rs. 544 crores. The main reason for the shortfalls in net external assistance in recent years has been the continuous increase in debt service payments. Debt service charges increased from Rs. 755 crores in 1976-77 to Rs. 821 crores in 1977-78. The estimated charges in 1978-79 have been placed at Rs. 900 crores.

1.20 The latest Economic Survey of the Government of India has pointed out that there has been a gradual softening in recent years in the terms of assistance offered by individual donor countries. Further development in this respect is the reduction in the rate of interest on the commodity loans from Japan from 3.5 per cent to 3 per cent. The assistance from the United Kingdom, Sweden and Norway continue to be entirely in the form of grants.

Five Year Plan

1.21 The Fifth Five Year Plan (1974-79) was terminated a year ahead of schedule, and a new Draft Five Year Plan for 1978-83 was formulated. The main objectives of the Plan are removal of unemployment and chronic under employment within a period of ten years, an appreciable rise in the standard of living of the poorest sections of the population, and provision of some of the basic needs to the poor, such as clean drinking water, adult literacy, elementary education, health care, rural roads, rural housing for the landless and minimum services for the urban slums. The Plan also aims at moving towards a significant reduction in the present disparities of income and wealth, and ensuring the country's continued progress towards self-reliance.

1.22 As against a target of 5 to 5.5 per cent of annual growth rate assumed by the earlier plans, the Draft Plan for 1978-83 has set a target of 4.7 per cent for annual growth rate. For achieving this growth rate, the size of the investment outlay has been placed at Rs. 1,05,950 crores of which nearly 56 per cent (Rs. 59,130 crores) will be in the public sector. Including the current developmental outlay, the plan

share has been estimated at Rs. 1,16,240 crores in which the share of public sector outlay will be Rs. 69,380 crores or 59.7 per cent of the total. The total plan outlay during the first year (1978-79) amounted to Rs. 11,649 crores. The budgeted plan outlay for 1979-80 is Rs. 12,511 crores representing an increase of 7.4 per cent over the previous year. However, an amount of Rs. 835 crores has been transferred as committed expenditure from the plan to non-plan outlay in the Central and State Plans together.

Central Assistance for State Plans

1.23 Aggregate central assistance towards financing the State Plans was originally fixed at Rs. 10,350 crores, of which an amount of Rs. 2,450 crores has already been distributed to the States in 1978-79 which represents the first year of the Sixth Plan. The details of the amounts for distribution amongst States are as below:

1. Aggregate Central Plan assistance for five years 1978-83	10,350
2. Less amount already allocated in 1978-79	2,450
3. Assistance available for four years 1979-83	7,900
4. Less Special Category States	1,800
5. Less Hill and Tribal areas and North Eastern Council	800
6. Less externally aided projects	500
7. Less reserve for special problems	600
8. Formula amount for 4 years 1979-83 for other States	4,200

1.24 At the last meeting of the National Development Council, it was decided that the amount of Rs. 4,200 crores to States for the remaining four years of the Sixth Plan will be distributed on the basis of the updated Gadgil Formula, Kerala's share would work out to Rs. 166 crores. The last meeting of the National Development Council also took the decision that out of the provision of Rs. 5,000 crores earmarked for Centrally Sponsored Schemes, as much as Rs. 2,650 crores would go to States in the form of additional Central assistance. Since an amount of Rs. 650 crores has already been given away to States during the current year (1978-79), the balance amount for

distribution in the remaining four years would be only Rs. 2,000 crores. The National Development Council also decided that this amount would be distributed among 14 States (excluding special category States) on the basis of a new formula based on 'Income Adjusted Total Population' (IATP). Kerala will receive a sum of Rs. 77 crores out of this based on its share of 3.83 per cent on the basis of the new formula. The State will also be entitled to receive a share out of the provisions earmarked for (i) hill and tribal States, (ii) externally aided projects and (iii) for meeting special problems. The details of amount in respect of these categories are yet to be worked out. The size of Kerala's Sixth Five Year Plan (1978-83) will be finalised only after the next round of discussions with the Planning Commission.

Trends in Kerala's Economy

1.25 The general economic situation in the State reflected a fair degree of stability in 1978. The overall average increase in consumer prices in the State was less than 3 per cent as compared with 4.4 per cent increase at the all-India level. The public distribution system was helpful in containing the inflationary pressures in the State's economy. The wholesale prices of agricultural commodities in general, with the exception of foodgrains, exhibited an upward trend. The general index has gone up by 6.5 per cent. This has benefited the farmers.

1.26 A major development that has been taking place in the economy is increasing volume of remittances from abroad especially, from the Gulf countries. According to latest official estimates, of the total foreign remittances of Rs. 1,800 crores to India during last year, Kerala accounted for as much as Rs. 400 crores. A good part of these money inflows is being utilised by the recipients for investment in real estate and houses. Consequently, land values even in rural areas have shown a tendency to escalate substantially in recent years. It would be desirable on the part of the State Government to initiate policies and programmes aimed at mopping up a part of such foreign remittances for development purposes. The broad trends in the State's economy are summarised in Table 1.3. Important developments in the different sectors of the State's economy are outlined in the following paragraphs:

TABLE 1.3
Selected Economic Indicators

Indicator	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78
	Percentage Change over the Previous Year					
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Net State Domestic Product at 1960-61 Prices	2.9	1.5	1.6	1.6	(-)0.2	N.A.
2. Per Capita Income at 1960-61 Prices	0.0	(-)0.7	(-)0.7	(-)0.7	(-)2.0	N.A.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
3. Agricultural Production	..	..	..	(-)3.8	(-)4.0	2.7
4. Foodgrains Production	1.8	(-)8.7	6.1	(-)0.2	(-)5.6	1.7
5. Industrial Production	9.6	1.5	0.0	2.5	6.9	..
6. Electricity Generated	2.6	6.8	5.9	4.7	13.2	41.9
7. Wholesale Prices of Agricultural Commodities*	(-)1.8	30.7	30.9	(-)6.2	5.7	10.8
8. Imports through Cochin Port at Current Prices	4.8	32.9	121.2	9.0	7.7	8.6
9. Exports through Cochin Port at Current Prices	6.2	24.9	27.7	(-)9.5	31.2	29.1

*Relative to calendar year

Income and Employment

1.27 A quick estimate of the State income of Kerala for 1976-77, the latest year for which figures are available, shows that the per capita income of the State registered an increase of 6.5 per cent over that of the previous year i. e. Rs. 968 against Rs. 909 in 1975-76. While the share of the primary sector decreased, that of the secondary and tertiary sectors increased. A review of the district income shows that while Ernakulam and Quilon districts shared the first and second places respectively in the State income, the Idukki district had the lowest share.

1.28 The live register of the Employment Exchanges shows that at the end of 1978, there were 10.53 lakh unemployed persons of which 5.58 lakh persons (53.4 per cent) were having qualifications S.S.L.C. and above. The employment in the organised public and private sectors has shown a declining rate of growth compared to the previous year. The Government of Kerala, in July 1978, introduced an Unemployment Relief Scheme with the objective of giving financial relief to the unemployed youth. Out of the 2.01 lakh applications received, 1.70 lakh applicants were found eligible for the benefit and the first instalment of the relief money was disbursed to majority of the eligible persons. The Overseas Development and Employment Promotion Consultants Ltd. (ODEPC) has been able to send 53 doctors, 23 paramedical staff and 29 auto mechanics and auto electricians abroad during 1978. The Kerala Institute of Labour and Employment has been registered in February 1978 with the objective of providing education and training and conducting research on labour, employment and related subjects with special reference to Kerala.

Agricultural Production

1.29 The year 1977-78 witnessed an improvement in agricultural production in the State. Rice production went up to 12.95 lakh tonnes from 12.54 lakh tonnes in the previous year, representing an increase of 3.2 per cent. It must, however, be pointed out in this context that the State is yet to achieve the level of production of 14 lakh tonnes obtained as far back as in 1969. Production of commercial crops such as coffee, pepper,

ginger, turmeric, cashew etc. also recorded increases during the year.

1.30 With the addition of 100 Intensive Paddy Development (IPD) units the total number of IPD units in the State has increased to 489 covering nearly 40 per cent of the wet land area under rice. An area of 4,500 hectares have been additionally brought under the coconut replanting programme and 11,000 hectares were newly brought under cashew cultivation during the year. While the consumption of fertilisers and pesticides increased, the quantity of high yielding varieties of seeds distributed has shown a significant decline.

1.31 The Kerala Agricultural Development Project supported by the World Bank involving an investment of Rs. 63 crores spread over a period of 7 years made good headway during the year. Out of a total of 105 package units envisaged, 22 units have been commenced.

1.32 A major project was initiated in Wynad under the Western Ghat Programme with the establishment of a cardamom plantation in 1,500 hectares of forest land to rehabilitate 750 dispossessed tribal families.

Co-operation

1.33 The co-operative credit system in the State registered further progress during the year, the average membership of the society increased by 29, and share capital per society by Rs. 10,000. The deposit per society increased by Rs. 28,000 and the average working capital per society has passed the Rs. 10 lakh mark.

Land Reforms

1.34 Implementation of land reforms proceeded apace during the year. Till the end of November 1978, a total number of 35.50 lakh cases were filed for landlord rights on cultivating tenants of which 35.23 lakh cases (99 per cent) were disposed of, the number of cases allowed being 23.88 lakhs. In the matter of acquisition and disposal of surplus lands after allowing for court orders, the net area ordered for surrender is 1.14 lakh acres at the end of December 1978. Till the end of the year, an extent of 44,998 acres of surplus lands were distributed to 69,397 families. The beneficiaries belonging to Scheduled Castes (26,035 families)

and Scheduled Tribes (4,751 families) together accounted for 19029 acres (42 per cent).

Livestock Development

1.35 The provisional estimates of the livestock census 1977, show that the livestock population of the State increased by 7.8 per cent i.e. from 49.36 lakhs in 1972 to 53.19 lakhs in 1977. The period saw an increase in poultry population by 10.6 per cent, bovine population by 3.9 per cent, buffalo population by 4 per cent and cattle population by 5.2 per cent.

1.36 The Departments of Animal Husbandry and Dairy Development and the Kerala Livestock Development and Milk Marketing Board (KLD&MM Board) continued their stock improvement measures during the year 1978. These three agencies altogether conducted 8 lakh inseminations during 1977-78.

1.37 The veterinary infrastructure in the State in April 1978 comprised 408 veterinary hospitals/dispensaries, 104 veterinary sub-centres/first aid centres, 11 mobile veterinary dispensaries and 9 veterinary clinical laboratories. In 1977-78, nearly 26 lakh cases of diseases of animals and poultry were treated in the various veterinary institutions of the State.

Fisheries

1.38 The declining trend in fish production in the State noticed since 1973-74, has been arrested and it moved up from 3.35 lakh tonnes in 1976-77 to 3.69 lakh tonnes during 1977-78. This level of production, it must be pointed out, is 21 per cent lower than that in 1973-74. On the export front, the earnings from marine products suffered a set-back. It came down from Rs. 90.12 crores in 1976-77 to Rs. 77.45 crores in 1977-78.

1.39 Eventhough the Kerala Fisheries Corporation had at its command a fleet of four large trawlers imported from Mexico, they could not bring in any commendable progress in their performance during 1977-78. The total value of the landings in 1977-78 amounted to Rs. 16.61 lakhs and the exports of the Corporation of frozen marine products during the year were valued at nearly Rs. 100 lakhs.

1.40 In the beginning of 1978, Government set up the Kerala Fishermen Welfare Corporation with the objective of improving the socio-economic conditions of the traditional fishermen who constitute nearly 90 per cent of the fishermen in the State.

Forests

1.41 Despite the fact that the estimated production of forest produce has decreased during 1977-78, the net revenue from the sale of these products increased by 21 per cent during the year, from Rs. 26.18 crores in the previous year to Rs. 31.78 crores.

1.42 Till the end of 1977-78, the Kerala Forest Development Corporation set up in 1975, has planted 3,864 hectares of pulp wood and 198 hectares of matchwood. The Kerala Forest Research Institute at Peechi with its immense capability for research have taken up many valuable in-depth studies aiming at the promotion of the forest development activities in the State.

Irrigation and Power

1.43 During 1977-78, irrigation facilities from major and medium projects were extended to 14,674 hectares (net) as against 17,622 hectares (net) during the previous year. The total investment during the year was Rs. 41.07 crores. Under minor irrigation, it has been possible to bring in a net area of 6,632 hectares during 1977-78. The construction of 13.186 km. of embankments and 0.2 km. of drainage channels were taken up under flood control works. An investment of Rs. 3.94 crores has been made during 1977-78 to protect an additional length of 17.585 km. of coast-line as part of the anti-sea erosion works.

1.44 The total power generation capacity of the State has increased from 28.5 Mw. in 1950-51 to 1011.5 Mw. in 1977-78 and the total quantity of power generated is about 4471 Mkw., in 1977-78. A recent study conducted by the State Planning Board shows that more than 800 census villages (Karas and Desoms) in the State are yet to be electrified. Hence a massive programme has to be drawn up for rural electrification in the State. A total number of 81,571 service connections were provided, twelve villages were electrified and 5,774 irrigation pumpsets were energised during 1977-78. The energy consumption within the State increased by 194 million units over the previous year and stood at 2,331 million units at the end of the year.

1.45 The capital investment of the State Electricity Board at the end of 1977-78 was Rs. 386.26 crores against Rs. 350.46 crores at the end of the previous year.

Industry

1.46 In spite of the measures introduced by Government for the promotion of industry during 1978, the growth of the industrial sector in Kerala was not very impressive. Inadequacy of raw materials, cement coal etc. and the interruptions in power supply were some of the important factors which retarded the growth. The total number of registered working factories in the State increased from 6,921 in 1976 to 7,625 in 1977. As in the previous year, Cannanore district registered the highest increase of 159 factories. The average daily employment in these factories increased from 2.81 lakhs in 1976 to 2.86 lakhs at the end of 1977. The overall employment pattern in the factory sector continued and as in the past cashew industry accounted for a major share of the factory workers.

1.47 The total value of production of the Government owned companies increased from Rs. 9 crores in 1976-77 to Rs. 11 crores in 1977-78. The total value of production of the Government majority companies during 1977-78 was only Rs. 34.6 crores against Rs. 35.1 crores of the previous year.

1.48 The Kerala State Industrial Development Corporation continued to assist industries spread over the different parts of the State. The Corporation sanctioned applications for assistance worth Rs. 302.74 lakhs of which the actual disbursement was Rs. 194.49 lakhs. The Kerala State Electronics Development Corporation and its subsidiary/ associate companies have invested Rs. 11.2 crores as at the end of March 1978, in various projects for the manufacture of electronic components and equipments.

1.49 The export of coir goods decreased in terms of quantity from 44,357 tonnes in 1976-77 to 42,443 tonnes in 1977-78, but the value earned has attained a new peak of Rs. 23.92 crores against Rs. 22.78 crores in the previous year. In the field of cashew industry, shortage in the supply of raw nuts continued to hamper the progress of the industry. As a result of the decrease in the import of raw nuts, the workers in the industry could not get full employment throughout the year. The Kerala State Cashew Development Corporation manages 34 cashew factories and provides employment to 34,665 persons. The units under the Corporation worked for 98 days during 1977-78, and processed 28,414 tonnes of raw nuts of which 17,927 tonnes were locally procured nuts.

1.50 Production in the handloom sector declined considerably in 1977-78. In the co-operative sector production declined to 193 lakh metres from 219 lakh metres in the previous year. As per figures available with the Handloom Export Promotion Council, Madras, the Kerala handloom firms exported fabrics and ready-made garments worth Rs. 204 lakhs in 1977-78 against Rs. 268 lakhs in the previous year.

1.51 The number of small scale industrial units registered during 1977-78, was only 1,172 as against 1,515 units registered in the previous year. The activities under Mini-Industrial Estate Programme intended to provide opportunities for employment to the educated youth continued in 1977-78. The construction of sheds for 106 mini industrial estates have been completed, and 508 small scale units commissioned. In accordance with the revised industrial policy of the Government of India, it has been decided to set up District Industries Centres in all the Districts of the State.

1.52 The total number of full time workers engaged in khadi and village industries in the State in 1977-78 was 67,089 which was higher by 3,832 workers over that

of the previous year. The units aided by the Khadi Board produced khadi worth Rs. 65 lakhs during the year and the value realised from its sale was Rs. 80.78 lakhs against Rs. 78.38 lakhs in 1976-77.

Transport and Communications

1.53 Out of a total length of 86,000 km. of roads in the State nearly 16,000 km. of roads are maintained by the Public Works Department. There are 365 vehicles per 100 sq. km. area and 574 vehicles per lakh of population in the State in 1977-78. The Kerala State Road Transport Corporation possessing a third of the total number of vehicles, plays a major role in the passenger transport of the State.

1.54 With the opening of the 30 km. Trivandrum-Kanyakumari broadgauge railway section, and the construction of the new Ernakulam-Alleppey railway line proposed to be taken up in April 1979, Kerala can look forward to increased economic activity in the field of railways.

1.55 In regard to sea traffic, especially coastal and foreign trade, Cochin Port still has a dominant place. The volume of traffic handled at Cochin recorded an increase of 8.5 per cent over the previous year, it being 51.74 lakh tonnes in 1977-78.

1.56 With the introduction of direct flights to Gulf countries, Trivandrum has become the fifth international airport in the country.

1.57 Kerala has developed its communication facilities to a great extent during 1978. There are 16 postal divisions, 2 RMS divisions and 4218 post-offices functioning in the State of which 115 were added during the year.

1.58 In the field of STD facilities, Kerala stands first with 9 out of 11 District Headquarters interconnected by direct dialling. Out of the 1268 villages in the State, 790 villages have telephone/telegraph facilities.

Export-Import Trade

1.59 The value of exports from the ports of Kerala rose significantly during the year 1977-78. The principal items of export were marine products (Rs. 77 crores), spices (Rs. 66 crores), cashew kernels (Rs. 75 crores), tea (Rs. 128 crores), coffee (Rs. 58 crores), and coir products (Rs. 24 crores). The performance of all the items except marine products and cashew kernels registered substantial increases over the previous year. As in recent years, during 1977-78 also the main item of imports through Cochin Port consisted of petroleum products which accounted for more than 75 per cent of the total quantity imported.

Education

1.60 Kerala continues to rank first among the Indian States with regard to educational development, and nearly 38 per cent of the annual State budget is set apart for education. During 1977-78, there were 1675 High Schools, 2718 U.P.Schools and 6969 L.P.Schools in the State. Government sanctioned 43 Schools (13 High Schools, 7 U.P. Schools and 23 L.P.Schools) during 1978-79 to be opened in backward areas where schooling facilities are inadequate. The total enrolment in schools increased to 55.38 lakhs in 1978-79 from 54.94 lakhs in 1977-78. The number of teachers in schools increased from 1.64 lakhs in 1976-77 to 1.67 lakhs in 1978-79. In the field of general higher education the number of Arts and Science Colleges remained unchanged at 130, whereas the number of students increased to 1.85 lakhs from 1.75 lakhs of the previous year. The number of institutions imparting technical education in the State remained the same as in the previous year. There were 4201 students in the engineering colleges, 7626 in polytechnics and 3498 in Junior Technical Schools in the State. The Committee appointed to study the question of vocationalisation of Higher Secondary Education in the State submitted their report to Government in 1978.

Health

1.61 In the field of Health, the number of medical institutions increased to 893, the total number of beds available being 28,862 and the number of beds per lakh of population increased to 116 from 113 of the previous year. The bed population ratio continued to be the highest (215) in Trivandrum District and the lowest (37) in Idukki District. While the number of induced abortions increased to 28,696 from 25,389 of the previous year, there was a steep fall in the number of vasectomy and tubectomy operations and I.U.D. insertions during the year.

Welfare of Scheduled Tribes

1.62 Various development activities took place in the field of tribal welfare during the year. In addition to the 18 existing hostels, two hostels with 60 boarders each were started at Chingeri and Cheeral. Isolated

tribal pockets were selected and tribal families were provided with houses, agricultural implements, livestock etc. Six new pockets were started at different places in South Wynad, Pathanapuram, Trichur, Ranni and Taliparamba. Four hundred and fourteen houses and 12 wells were constructed and one allopathic dispensary was started at Poomala in Idukki District.

Welfare of Scheduled Castes and Other Backward Classes

1.63 In the field of welfare of scheduled castes also, the schemes of the previous year were continued during the current year. Pre-matriculation scholarship was given to 3.8 lakh students and post-matriculation scholarship to 10.7 thousand students and one cosmopolitan hostel and five welfare hostels were newly started during the year. Under the housing scheme, grants were issued to 2498 families and to 275 couples entered into inter-caste marriage.

Water Supply.

1.64 Water supply schemes have made substantial progress during 1977-78. The number of towns having protected water supply increased from 28 in the previous year to 29 at the end of the current year. Seven more schemes are under construction. Under rural water supply 609 schemes were in operation at the end of 1976-77. Out of this, 54 schemes were completed during 1977-78 and about 27 per cent of the population have been benefited by them.

Housing

1.65 Under the various housing programmes, out of 19,021 houses sanctioned till the end of March 1978, a total number of 16,059 houses were constructed. During the year, a new scheme called the "Aided Self-help Co-operative Housing Scheme for Economically Weaker Sections in Rural Areas" envisaging the construction of one lakh houses costing Rs.3600 each within a period of two years has been formulated. About 12,000 houses are under various stages of construction. The Chengal Choola Housing Scheme at Trivandrum has been partially completed. By October last year 168 houses have been completed and they have been handed over to the beneficiaries.

CHAPTER 2

INCOME AND EMPLOYMENT

State Income

The Central Statistical Organisation has recently released the quick estimates of national income for the year 1977-78. According to these estimates the national income in 1977-78 stands at Rs. 73157 crores with per capita income at Rs. 1163 at current prices and at Rs. 43995 crores and Rs. 690 respectively at constant prices (1970-71) prices. The growth in national income at current prices is 9.9 per cent over the previous year with the corresponding increase in per capita income at 7.6 per cent. At constant prices (1970-71 prices) the rates of growth in national income and per capita income during 1977-78 are 7.4 per cent and 5.2 per cent respectively.

2.2 The marked increase in national income during 1977-78 was mainly due to the large increase in the production of foodgrains from 111.2 million tonnes in 1976-77 to 125.6 million tonnes in 1977-78. This contributed to an overall increase of 11.2 per cent in the net product of the agricultural sector. All other sectors of the economy also registered increases during 1977-78 compared to 1976-77, the more important of them being fisheries (5.8 per cent), construction (8.0 per cent), banking and insurance (11.1 per cent) and public administration (5.7 per cent).

2.3 According to quick estimates, the State income of Kerala for 1976-77, the latest year for which details are available, stood at Rs. 2319 crores, giving a per capita income of Rs. 968 at current prices. The corresponding figures for 1975-76 were Rs. 2134 crores and Rs. 909 respectively. The increase in per capita income would work out to 6.5 per cent. Such an order of increase in the per capita income in 1976-77 is significant in view of the fact that there was only an increase of 2.8 per cent in 1975-76 over 1974-75. The same trend is noticed in the growth of per capita national income also. The per capita national income which is estimated at Rs. 1020 in 1975-76 increased to Rs. 1081 in 1976-77 giving a rate of growth of 6.0 per cent. The State income and national income figures at current prices are furnished in Table 2.1

TABLE 2.1
State Income and National Income

Item	Kerala		Percentage Increase	India		Percentage Increase
	1975-76	1976-77		1975-76	1976-77	
Total Net Domestic Product (Rs. Crores)	2134	2319	8.7	61009	66361	8.0
Per Capita Income (Rs.)	909	968	6.5	1020	1081	6.0

2.4 At constant prices (1960-61 prices) there was a fall in the State income from Rs. 698 crores in 1975-76 to Rs. 697 crores in 1976-77. Consequently there was a reduction of 2 per cent in the per capita income in real terms in 1976-77 compared to 1975-76. It is important to note that in the Seventies, 1976-77 is the only year during which, the per capita income in real terms registered an absolute fall. The index of per capita income in 1976-77 stood at 98 when 1970-71 is taken as 100. At the all India level also there was a reduction of 0.6 per cent in the per capita national income at constant prices (1970-71 prices) in 1976-77 over 1975-76. But the index of per capita national income (at 1970-71 prices) stood at 103.2 with 1970-71 as base. Thus measured in terms of constant prices, there was a decline of 2 per cent in the growth of the State's economy in 1976-77 compared to 1970-71, as against a 3 per cent increase in the national economy during the corresponding period.

Sectoral Contribution

2.5 The shifts in the shares of the major sectors of the economy in the net domestic product of India and Kerala between the years 1970-71 and 1976-77, at current as well as constant prices are presented in Table 2.2. The general trend noticed is a reduction in the share of the primary sector and increase in the shares of secondary and tertiary sectors. But the decline in the share of primary sector during this period has been accompanied by an increase not so much of the 'secondary' sector as of the 'services' sector. At current prices, however, the share of the secondary sector in the net domestic product of Kerala decreased from 13.3 per cent in 1970-71 to 12.5 per cent in 1976-77. The share of the services sector increased substantially during the period from 31.9 per cent to 38.5 per cent. At constant prices, however, the share of the secondary sector increased by 2.9 percentage points from 17.1 per cent to 20.0 per cent. The increase in the services sector at constant prices was only 3.6 percentage points from 32.1 per cent to 35.7 per cent.

District Income

2.6 The net domestic product of the districts of Kerala for the years 1970-71, 1975-76 and 1976-77, at current prices and the percentage shares of each district during these years are presented in Appendix 2.6. Quilon district accounted for the highest share of the State income followed by Ernakulam district

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

Industry/Sector	(Per cent)							
	INDIA				KERALA			
	At current Prices		At 1970-71 Prices		At current Prices		At 1960-61 Prices	
	1970-71	1976-77	1970-71	1976-77	1970-71	1976-77	1970-71	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Primary Sector	50.0	42.5	50.0	44.1	54.8	49.0	50.8	44.3
2. Secondary Sector	19.8	23.2	19.8	22.2	13.3	12.5	17.1	20.0
3. Transport, Communication and Trade	15.8	18.6	15.8	17.6	16.3	19.8	16.0	15.9
4. Finance and Real Estate	4.9	5.7	4.9	5.5	3.4	4.8	3.7	4.9
5. Community and Personal Services	9.5	10.0	9.5	10.6	12.2	13.9	12.4	14.9
6. Tertiary Sector (3 + 4 + 5)	30.2	34.3	30.2	33.7	31.9	38.5	32.1	35.7
Total—Net Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

during the years 1970-71 and 1975-76. But in 1976-77 Ernakulam district had the highest share while Quilon district occupied the second place. The share of Idukki district was the lowest in all the three years.

2.7 The shifts in the percentage shares of the three major sectors of the economy in the net domestic product of the various districts (given in Appendix 2.7) reveal a mixed trend. The share of the primary sector declined in respect of all districts except Idukki during the years 1970-71 and 1976-77. While the share of the primary sector in the State income decreased by 5.8 percentage points from 54.8 per cent to 49.0 per cent during these years, in respect of Idukki district there was an increase of 2.8 percentage points from 68.8 per cent to 71.6 per cent. The share of primary sector in respect of Palghat district registered a decrease of 11.6 percentage points from 59.5 per cent in 1970-71 to 47.9 per cent in 1976-77. The share of the secondary sector declined during these years in all districts except Quilon, Alleppey and Palghat where there were marginal increases. The share of services sector increased

during the period in respect of all the districts except Idukki. While as high as 48 per cent of the district income in Trivandrum district is accounted for by the services sector, the corresponding percentage in Idukki district is only about 18 per cent.

2.8 The per capita income of the different districts may be taken as a rough indicator of the level of development of the area. The per capita income of the districts for the years 1970-71, 1975-76 and 1976-77, at current prices and the ranks of the districts based on the per capita income are given in Table 2.3. Kottayam district has the highest per capita income in all these years. Ernakulam and Idukki occupy the second position. Malappuram district has the lowest per capita income in all these years. The districts of Cannanore, Malappuram, Palghat, Trichur and Alleppey have per capita income less than the State average during all these years. The position of Trivandrum district has improved since 1970-71, with per capita income slightly above the State average during 1975-76 and 1976-77.

TABLE 2.3
Ranking of Districts based on Per Capita Income (At current prices)

District	1970-71		1975-76		1976-77	
	Per Capita Income (Rs.)	Rank	Per Capita Income (Rs.)	Rank	Per Capita Income (Rs.)	Rank
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trivandrum	550	9	926	5	975	5
2. Quilon	634	3	1081	2	991	3
3. Alleppey	564	6	859	8	902	7
4. Kottayam	670	1	1125	1	1151	1
5. Idukki	623	4	1052	3	1127	2
6. Ernakulam	641	2	990	4	1127	2
7. Trichur	550	9	790	10	874	8
8. Palghat	559	8	896	6	836	9
9. Malappuram	486	10	695	11	824	10
10. Kozhikode	616	5	890	7	987	4
11. Cannanore	560	7	813	9	962	6
KERALA	584		909		968	

Population

2.9 The estimated population of Kerala as on the first of July 1978 is 247.7 lakhs consisting of 122.7 lakh males and 125.0 lakh females. The State's population has been growing at a relatively slower rate since the beginning of the current decade. This declining trend in growth rate was witnessed in the year 1977 also.

Birth and Death Rates

2.10 The birth and death rates estimated from the decennial Census population figures of 1931 to 1961 and those thrown up by the Sample Registration data for the years 1966 to 1977 are presented in Table 2.4.

TABLE 2.4
Birth and Death Rates

Year	Births per 1000 Population		Deaths per 1000 Population	
	Kerala	India	Kerala	India
(1)	(2)	(3)	(4)	(5)
1931-40	40.0	45.2	29.1	31.2
1941-50	39.8	39.9	22.3	27.4
1951-60	38.9	41.7	16.9	22.8
1966	37.4	..	10.5	..
1970	31.6	36.8	9.2	15.7
1974	26.8	34.5	7.8	14.5
1975	28.0	35.2	8.4	15.9
1976	27.8	34.4	8.1	15.0
1977	27.0	34.8	7.5	15.2

During the 11 years from 1966 to 1977 there has been a reduction of 10.4 points in the birth rate as against only 5.2 points in the all India birth rates. Significant reductions are noticed in the death rates also during this period. The combined effect of the reductions in birth and death rates is that the rate of growth of population has declined in Kerala from 2.69 per cent per annum in 1966 to 1.95 per cent per annum in 1977.

National Population Policy

2.11 The Planning Commission had earlier set a target of bringing down the crude birth rate from the present level of 35 per 1000 population to the level of 25 per 1000 population per year by the end of the Sixth Five Year Plan. The Conference of the National and State Health Ministers in February, 1978 adopted a resolution revising the target set for birth rates by the Planning Commission in view of the poor performance in respect of the country's sterilisation programme in 1977. The new objective is to achieve a birth rate of 30 per 1000 population by 1983. Even this modified target would be achieved only if 3.5 to 4 million people are sterilised every year during the remaining years

of the Sixth Plan Period and an equal number are protected by common contraceptives and Intra Uterine Devices. However, Kerala State is already poised for achieving the target of a birth rate of 25 per 1000 population by the end of 1983, earlier set by the Government of India.

Mortality

2.12 The decrease in the death rate has resulted in substantial gains in the longevity or expectation of life at birth for the population of Kerala. The expectation of life at birth which stood at 26 years for an average person in Kerala in the beginning of this century had already crossed 62 years in 1976. Table 2.5 gives the values of expectation of life at birth for the population of Kerala from 1911 to 1976.

TABLE 2.5
Expectations of Life at Birth in Kerala

Period	Males (Years)	Females (Years)
	(2)	(3)
(1)	(2)	(3)
1911-20	25.49	27.41
1921-30	29.54	32.70
1931-40	33.19	35.00
1941-50	39.89	42.34
1951-60	46.17	50.00
1971	60.57	61.16
1976	61.22	64.42

2.13 One of the factors responsible for the rapid increases in the values of expectation of life at birth in the State is the success achieved in controlling the infant mortality. In the earlier decades of the century more than one fourth of the infants born in an year died before reaching the first year of life. In 1976, the infant mortality reached as low a level as 56 infant deaths per 1000 live births in the State. Table 2.6 gives the values of infant mortality rate for Kerala and for all India.

TABLE 2.6
Number of Infant Deaths per 1000 Live Births in an year

Period	Infant Mortality Rate	
	Kerala	India
(1)	(2)	(3)
1911-20	242	212
1921-30	210	176
1931-40	173	168
1941-50	158	146
1966	68	112
1971	61	122
1976	56	..

2.14 The impressive reduction achieved in infant mortality rates in Kerala in recent years can be attributed to the provision of better medical facilities and availability of nutritive food to pregnant and lactating mothers. However some of the studies on the pattern of consumer expenditure conducted in the State show that the poverty ratio measured in terms of proportion of population whose average calorie intake of food per day is less than a desired level is one of the highest in Kerala among the States in the country. Table 2.7 gives the State-wise figures of poverty ratios. One of the major contributory factors for the high incidence of poverty is the acuteness of the unemployment problem in the State.

TABLE 2.7
Percentage of Population Below Poverty Lines

State	Poverty Ratio (Percentage)
(1)	(2)
1. Andhra Pradesh	47.85
2. Assam	32.95
3. Bihar	64.06
4. Gujarat	44.88
5. Haryana	32.24
6. Karnataka	49.44
7. Kerala	62.25
8. Madhya Pradesh	57.50
9. Maharashtra	43.99
10. Orissa	67.50
11. Punjab	21.62
12. Rajasthan	43.50
13. Tamil Nadu	60.71
14. Uttar Pradesh	50.38
15. West Bengal	62.28

Source: Report of the Finance Commission—1978.

Employment Situation

2.15 An Unemployment Survey conducted by the Bureau of Economics and Statistics has revealed that there were about 11.7 lakh chronically unemployed persons in Kerala during 1977-78. In analysing the problem of unemployment, it is not enough to take into account the chronically unemployed alone, but the severity of the underemployment in the economy should also be considered. According to an estimate based on the results of the National Sample Survey, 27th round, the magnitude of unemployment and under employment measured in terms of person years is 18.8 lakhs in 1972-73 as against 185.7 lakhs for all India. Table 2.8 provides State-wise figures relating to unemployment in equivalent person-years. A standard person year for this purpose is calculated on the basis of 273 days of eight hour duration.

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TABLE 2.8
State-wise Figures of Unemployment (1972-73)

State/Union Territory	Unemployment in equivalent person-years (Million)	Share of State in Total All India Unemployment (Per cent)
(1)	(2)	(3)
Tamil Nadu	2.35	12.63
Andhra Pradesh	2.32	12.49
Maharashtra	2.22	11.93
Bihar	2.05	11.05
Kerala	1.88	10.11
West Bengal	1.64	8.79
Uttar Pradesh	1.22	6.54
Karnataka	1.18	6.36
Orissa	1.01	5.43
Madhya Pradesh	0.71	3.85
Gujarat	0.66	3.56
Rajasthan	0.49	2.62
Punjab	0.23	1.26
Haryana	0.15	0.79
Jammu & Kashmir	0.14	0.74
Assam	0.09	0.48
Delhi	0.08	0.42
Goa	0.07	0.36
Tripura	0.04	0.19
Pondicherry	0.03	0.16
Manipur	0.02	0.11
Himachal Pradesh	0.01	0.06
Meghalaya	0.01	0.05
Chandigarh	*	0.01
Nagaland	*	0.01
All India	18.57	100.00

*Less than 5 thousands.

Educated Un-employed

2.16 The live register maintained in the Employment Exchange gives an idea of the magnitude of the problem of unemployment in the State to a certain extent. It may be noted that all unemployed persons may not register themselves with the Employment Exchanges. Similarly all the registrants cannot be categorised as unemployed. However with these limitations the Employment Exchange data could be used for studying the problem of educated unemployed in the State. The distribution of work-seekers in Kerala according to their levels of education obtained from the Live Register of the Employment Exchanges is given in Table 2.9.

TABLE 2.9

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)
31-12-1967	1,79,479	86,852	48.39	83,615	3,558	4,822	631	92,627	51.61
31-12-1968	2,01,876	92,949	45.60	89,487	3,893	6,615	832	1,09,827	54.50
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	2,99,754	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	1,66,905	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	7,59,579	3,44,461	45.71	3,15,552	38,176	49,749	5,641	4,09,118	54.29
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	46.60	4,34,192	56,641	66,884	24,352	5,57,717	53.40

2.17 During the year 1978, more than 2.03 lakh persons have additionally registered their names with the Employment Exchanges compared to 0.96 lakh persons for the previous year. Of this 1.03 lakh persons were having qualifications below S. S. L. C. and the remaining were with qualifications S. S. L. C. and above. All the educated categories from S. S. L. C. and upwards, recorded significant increases in registra-

tion compared to the earlier years. In the case of post graduates their number increased from 6,346 to 24,352.

Professional and Technical Work-seekers

2.18 The distribution of professional and technical work-seekers according to educational accomplishments is given in Table 2.10. All the categories of registrants

TABLE 2.10

Number of Professional and Technical Work-Seekers

Period Ending	Medical Graduates	Engineering Graduates	Diploma holders in Engineering	I.T.I. Certificate holders	Agricultural Graduates	Veterinary Graduates
(1)	(2)	(3)	(4)	(5)	(6)	(7)
31-12-1967	20	654	N.A.	N.A.	15	N.A.
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	Nil.	Nil.
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

except Engineering Graduates and Agricultural Graduates recorded an increase during the year 1978. The number of medical graduates increased by 278 to 668 in 1978. The increasing trend of registration continued in respect of Engineering Diploma holders and I. T. I. Certificate holders. In this context, it is worth mentioning that during the quarter ended

31-12-1977, 275 vacancies notified in the Employment Exchanges in the State were cancelled for want of suitable registrants. Some of the categories which experienced such shortage of registrants are High School Assistants (Mathematics, Sanskrit, Urdu and Arabic) Laboratory Technicians, Staff Nurses, Lady Health Visitors, Pharmacists, Refractionists, Boat Syrang etc.

Employment in the Organised Sector

2.19 The details regarding employment in the public and private sectors in Kerala from 31-12-1967 are given in Table 2.11.

TABLE 2.11

Employment in the Public and Private Sectors in Kerala

Period ending	Public Sector	Private Sector	Total
(1)	(2)	(3)	(4)
31-12-1967	2,66,366	4,25,851	6,92,217
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

In spite of the marginal increases in employment in the organised public and private sectors, there is a decline in the rate of growth in employment in these sectors compared to the previous year 1976. An examination of the employment position in the public and private sector separately for a period of ten years from 31-12-1967 shows that the contribution of the private sector is considerably less than that of the public sector.

Placings Through Employment Exchanges

2.20 The number of placings through Employment Exchanges in Kerala from 1967 is given in Table 2.12.

TABLE 2.12

Placings through Employment Exchanges in Kerala

Year	Number of Placings	Monthly Average Number of Employers using Employment Exchanges
(1)	(2)	(3)
1967	15,617	506
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	13,203	497

The number of placings has decreased during 1978 compared to that in 1977. The monthly average number of employers using the employment exchanges also declined from 501 to 497 during the year. Even short vacancies of duration of less than three months are being filled with Public Service Commission hands and if Public Service Commission hands are not available only then such vacancies are filled through Employment Exchanges.

Unemployment Relief Scheme

2.21 With the objective of giving financial relief to the unemployed youth, the Government of Kerala started the scheme for providing unemployment allowance in July, 1978. Initially the scheme is expected to benefit 2.5 lakh unemployed persons selected from among the registrants of the employment exchanges in the State. The beneficiaries should be unemployed persons registered with the Employment Exchanges in the State but could not be provided with any job for a period of three years and whose family income does not exceed Rs. 4,000 per annum. Each selected unemployed person under this scheme will get Rs. 400 by way of unemployment relief, to be paid in two instalments of Rs. 200 each. The beneficiaries will be liable to render voluntary service in programmes like adult literacy, removal of African Payal, minor irrigation, rural works programmes, cleaning campaign in Corporations, Municipalities and Panchayats, and house construction. Out of 2.01 lakh applications, 1.70 lakh applicants were found eligible for getting the benefit under this scheme. The Government have already provided the first instalment of relief to the majority of the eligible unemployed. Those beneficiaries willing to take up self employment programmes will be given the full amount of relief (Rs. 400) in lump to be deposited with the Co-operative Banks towards share capital and the Banks will provide loans upto Rs. 4000 at a subsidised rate of interest viz., 7½ per cent. The State Government will give an interest subsidy of 4 per cent to the Banks concerned.

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

2.22 The ODEPC is the pioneer Government agency given licence to recruit manpower for overseas jobs. Registered as a fully-owned Government Company on 22-10-1977, the paid up capital of the Company as on 31-3-1978 stood at Rs. 1.8 lakhs.

The main objectives of the Company are:—

- (i) To find employment in foreign countries for the educated Keralites;
- (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.

Within the short span of time from 27-1-1978, sixteen technicians were sent to Dubai, 53 Doctors and 23 Para medical staff to Libya, and 29 auto mechanics, auto electricians and heavy earth moving equipment mechanics to Mozambique. In addition, not less than 240 persons including nurses were sent to U. A. E. The ODEPC is also attending to the various problems of overseas residents and finding out ways and means to solve them. Their demand for direct flight from Trivandrum to Kuwait and amendment regarding the relaxation of Baggage rules have been met.

The Kerala Institute of Labour and Employment

2.23 The Kerala Institute of Labour and Employment was registered on 4th February 1978. The

primary objective of the Institute is to provide education and training and conduct research on labour, employment and related subjects with special reference to Kerala. The important functions of the Institute are:

- (i) Organisation of resources and facilities for building a basic infrastructure for the conduct of training programmes, library and research activities.
- (ii) Organisation and administration of specific training programmes, seminars, conferences etc.
- (iii) Documentation of books and periodicals on industrial relations, employment, unemployment and related fields.

CHAPTER 3

PRICES AND COST OF LIVING

Price Situation

The price situation in the country remained fairly stable during the year 1978 despite a sizeable budgetary deficit and escalation in money supply. Two successive years of bumper agricultural production that helped to build up a buffer stock of nearly 20 million tonnes of foodgrains, a healthy revival in industrial production and a comfortable foreign exchange reserve have been the major contributory factors for this situation.

3.2 Towards the end of January, the Central Government lifted all curbs on inter-state movement and free sale of sugar. Along with this, some other policy measures intended to stabilise prices, were also initiated, such as restrictive money and credit policy, ban on export of pulses, groundnut, edible oils and fresh vegetables, removal of restrictions on inter-state movement of wheat and rice etc. Bank deposits and lending rates were reduced from the beginning of March 1978 in order to encourage larger flow of private savings into the capital market. As part of a national drug policy Government also took a decision to freeze the prices of about hundred essential drugs initially for an year.

3.3 All the above measures had a favourable impact on the price situation in the country during the first half of the year. The slack season's hike in prices was manifest from June and continued till November when the wholesale price index ruled slightly higher. In December, however, the index dropped to almost the level prevailed at the beginning of the year. The monthly trend of the wholesale price index is given in Table 3.1.

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

Month	Index			Percentage change	
	1976	1977	1978	In 1977 over 1976	In 1978 over 1977
(1)	(2)	(3)	(4)	(5)	(6)
January	166.4	178.4	184.4	(+) 7.2	(+) 3.4
February	164.9	182.4	181.5	(+)10.6	(-) 0.5
March	162.6	182.9	182.9	(+)12.5	0.0
April	166.2	184.1	182.4	(+)10.8	(-) 0.9
May	169.3	187.4	182.9	(+)10.7	(-) 2.4
June	179.5	187.8	184.7	(+) 9.5	(-) 1.6
July	177.6	188.7	186.0	(+) 6.3	(-) 1.4
August	178.5	188.1	186.7	(+) 5.6	(-) 0.7
September	179.5	188.2	186.2	(+) 4.8	(-) 2.0
October	177.7	185.2	187.4	(+) 4.2	(+) 1.2
November	176.8	184.4	186.9	(+) 4.3	(+) 2.5
December	177.4	185.5	184.9	(+) 4.5	(-) 0.3
Annual average	173.03	185.25	184.74	(+) 7.1	(-) 0.3

3.4 It may be noted that the price fluctuations during the year 1978 were confined within a narrow range of 181.5 points in February and 187.4 points in October, which represented a 3 per cent increase. A point to point comparison of the price levels of 1978 with those of the previous year would show that the level of prices was lower almost throughout the year 1978.

3.5 The wholesale price index being an aggregate of the different group indices does not reveal the divergent trend of prices of different commodities. A comparison of the price indices under some of the important commodity groups is furnished in Table 3.2

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

Item	December 1977	December 1978	Percentage Variation
(1)	(2)	(3)	(4)
I. Primary Articles	183.3	178.2	(-) 2.8
1. Food Articles	174.2	167.9	(-) 3.6
(a) Food grains	176.3	172.7	(-) 2.0
(i) Cereals	162.4	155.8	(-) 4.0
(ii) Pulses	245.1	256.3	(+) 4.6
(b) Fruits and Vegetables	170.9	145.1	(-) 15.5
(c) Milk and Milk Products	156.4	161.3	(+) 3.1
2. Non-food Articles	174.1	171.9	(-) 1.3
II. Fuel, Power, Light and Lubricants	234.1	245.7	(+) 5.0
III. Manufactured Products	179.1	180.1	(+) 0.6
(a) Food Products	180.6	155.1	(-) 14.1
(b) Textiles	175.9	179.8	(+) 2.3
(c) Chemicals and Chemical Products	172.6	177.6	(+) 2.9
(d) Basic Metals, Alloys and Metal Products	194.0	214.5	(+) 10.6
(e) Machinery & Transport equipment	173.1	183.1	(+) 6.0
All Commodities	185.5	184.9	(-) 0.3

3.6 Unlike in the previous year there has been a fall in the price of primary articles (2.8 per cent) during 1978. While there has been a slump in the price of cereals in general, the price of pulses ruled at a high level reached nearly two years back, despite the steps taken to import pulses to make good the fall in internal production. If fruits and vegetables exhibited a declining trend there has been an upward trend in the case of milk and milk products. The index of non-food articles recorded a nominal decline of about 1.3 per cent mainly on account of the fall in the price of fibres

(cotton and jute) and of oil seeds. Satisfactory harvest coupled with imports and removal of interstate trade restrictions have improved the availability of oil seeds in the country. As regards manufactured products, though the general index displayed a stable position there has been an alround increase in the prices at varying rates in respect of non-food industrial products, like chemicals, basic metals and metal products, machinery and transport equipment. The substantial fall in the price index of food products (14 per cent) seems to have neutralised the hike in the other industrial products in the group index of the manufactured products. The fall in the production of finished steel by 8.4 per cent, pig iron by 7.6 per cent and of copper by 21.3 per cent during the first half of the year 1978 accounts for the spurt in the prices of metal products and machinery.

Consumer Price Index

3.7 The All India Consumer Price Index of Industrial Workers recorded an increase of the order of 3.0 per cent till November during the year 1978, compared to the 0.8 per cent increase of wholesale price index during the same period, indicating that the movement of retail prices has not been in tune with that of the wholesale prices (Table 3.3). It seems that the advantages of price stability at the wholesale points are not being reflected in the levels of consumer prices.

TABLE 3.3

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

Months	Index Numbers			Percentage change	
	1976	1977	1978	In 1977 over 1976	In 1978 over 1977
(1)	(2)	(3)	(4)	(5)	(6)
January	298	307	325	(+) 3.0	(+) 5.8
February	290	310	320	(+) 6.8	(+) 3.2
March	286	312	321	(+) 9.0	(+) 2.9
April	289	313	322	(+) 8.3	(+) 2.9
May	290	318	323	(+) 9.6	(+) 1.6
June	291	320	327	(+) 9.9	(+) 2.2
July	297	325	330	(+) 9.7	(+) 1.5
August	298	327	331	(+) 9.7	(+) 1.2
September	302	331	336	(+) 9.6	(+) 1.5
October	304	330	340	(+) 8.5	(+) 3.0
November	306	330	340	(+) 7.8	(+) 3.0
December	306	330	..	(+) 7.8	..

3.8 As in the case of wholesale price index, consumer price index also remained almost stable during the first half of the year. In fact, it fell in February and remained at a lower level till May and moved up subsequently to reach the peak in October. A month to month comparison with the previous year would again show that the movement of the index in 1978 was rather

moderate compared to that experienced in the previous year. The actual increase in the index from January to November was of the order of 15 points (3 per cent) in 1978 against 24 points (7.8 per cent) during the corresponding period in the previous year.

Consumer Price Indices in Kerala

3.9 Similar to the upward trend noticed in the all India consumer price index of industrial workers, the consumer price index for agricultural and industrial workers in Kerala also recorded an upward movement in all the 15 selected centres of the State during 1978. While during the previous year all the 15 centres reported a decline in the index, varying from 0.6 to 6.6 per cent, the trend was reversed during 1978 consequent to increases in the prices of some of the essential commodities forming part of the consumer basket. The increase in the average annual index at the different centres was within the range of 0.6 per cent to 5.2 per cent (vide Table 3.4).

A comparison of the indices at the different centres shows that cost of living index was highest in Munnar as in the past, and lowest in Mundakayam.

TABLE 3.4

Average Annual Index of Consumer Price in Selected Centres
in Kerala

(Base 1970=100)

Centre	Average Annual Index			Variation	
	1976	1977	1978	During 1977 over 1976	During 1978 over 1977
(1)	(2)	(3)	(4)	(5)	(6)
1. Trivandrum	164	160	166	(-) 2.4	(+) 3.8
2. Quilon	167	163	167	(-) 2.4	(+) 2.5
3. Punalur	165	169	161	(-) 3.0	(+) 0.6
4. Alleppey	164	159	161	(-) 3.0	(+) 1.3
5. Kottayam	158	154	162	(-) 2.5	(+) 5.2
6. Mundakayam	167	156	158	(-) 6.6	(+) 1.3
7. Munnar	175	172	175	(-) 1.7	(+) 1.7
8. Ernakulam	161	158	162	(-) 1.9	(+) 2.5
9. Chalakudy	164	157	165	(-) 4.3	(+) 5.0
10. Trichur	163	158	166	(-) 3.1	(+) 5.1
11. Palghat	163	160	163	(-) 1.8	(+) 1.9
12. Malappuram	162	161	164	(-) 0.6	(+) 1.9
13. Kozhikode	166	163	170	(-) 1.8	(+) 4.3
14. Meppadi	167	165	170	(-) 1.2	(+) 3.0
15. Cannanore	161	157	164	(-) 2.5	(+) 4.5

3.10 The monthly trend in the consumer price index, furnished in Appendix 3.3, reveals that while there was relative stability during the first few months of the year the index began to move up from the middle of the year. It is also noted that the rate of increase in the index from the beginning to the end of the year varied only moderately at the different centres from say, 0.5 per cent to 6.3 per cent.

Retail Prices of Essential Commodities

3.11 The retail prices of the essential commodities in the State, which is more important from the point of view of the common man, exhibited a mixed trend during 1978. In the beginning of the year there was a general decline in prices, in tune with the movement of prices in the country as a whole, but during the subsequent months this tendency is not observed. In respect of commodities such as pulses and condiments, or the supply of which the State has been dependent on other States, the price fluctuation has been more pronounced. While the price trend in respect of agricultural products, conditioned to a large extent by such factors as seasonality, crop failures etc., was rather erratic that of the manufactured items generally showed a definite pattern of progressive rise.

3.12 A point to point comparison of 17 items of essential commodities, given in Table 3.5, brings out that while ten items have become dearer, seven have recorded a fall. But in the case of essential commodities of wide consumption, such a point to point comparison with an interval of twelve months may not be very much revealing as most of these commodities have a set pattern of seasonality of price movements. A month-wise statement of average prices of 40 essential commodities is therefore furnished in Appendix 3.4.

TABLE 3.5

State Average of Retail Prices of Essential Commodities

Commodity	Units	Price (Rs.)			Percentage Variation
		31-12-1977		29-12-1978	
(1)	(2)	(3)	(4)	(5)	
1. Rice (open market)	Kg.	2.21	2.15	(-)	2.7
2. Dhall	"	5.26	5.42	(+)	3.0
3. Redgram	"	2.93	2.97	(+)	1.4
4. Greengram	"	3.46	4.13	(+)	19.4
5. Blackgram	"	3.30	3.70	(+)	12.1
6. Coconut oil	"	13.00	12.46	(-)	4.2
7. Corriander	"	7.94	3.76	(-)	52.6
8. Chillies	"	12.25	11.60	(-)	5.3
9. Onion	"	2.41	0.68	(-)	71.8
10. Tamarind	"	3.47	7.58	(+)	118.4
11. Coconut (with husk)	100	115.70	107.00	(-)	7.5
12. Tapioca	Kg.	0.49	0.53	(+)	8.2
13. Tea (Brooke Bond Al dust)	"	18.93	18.66	(-)	1.4
14. Coffee Powder (Brooke Bond Family brand)	"	18.32	18.41	(-)	4.9
15. Milk (Cows)	Litre	2.34	2.36	(+)	0.9
16. Firewood (Local split)	Qtl.	19.55	24.35	(+)	24.5
17. Mundu (Kora)	Each	7.35	7.90	(+)	7.5

3.13 The price of rice in the open market during the year ruled between Rs. 2.06 and Rs. 2.27 per kg., at different seasons and the average price worked out to Rs. 2.14 against Rs. 2.33 an year ago. Pulses in general recorded a further increase during the year on top of the steady rise registered in the previous year, due to a shortage in supply throughout the country. The price of coconut oil per kg., during the year ruled in the range from Rs. 11.33 per kg., in March to 14.11 in September compared to Rs. 10.23 to Rs. 13.36 an year ago. While the price of groundnut oil and gingelly oil softened during the latter half of the year the trend was almost reverse in the case of refined oil. The fall in the price of sugar was rather steep, consequent on the removal of controls and towards the end of the year price fell to Rs. 2.32 per kg. as against Rs. 3.67 in the beginning of the year. The price of firewood continued to rise steadily reaching a level of 25 per cent above that in the beginning of the year. While the price of tamarind more than doubled during the year that of corriander and onion recorded a considerable fall.

Wholesale Price Index of Agricultural Commodities—Kerala

3.14 During 1978 the wholesale prices of agricultural commodities in general, excepting foodgrains, exhibited an upward trend in the State, contrary to the all India picture. The general index has gone up by 6.1 per cent during the year compared to 10.5 per cent during the previous year as shown in Table 3.6

TABLE 3.6

Wholesale Price Index of Agricultural Commodities—Kerala

(Base 1952-53=100)

Group	Index			Percentage Variation	
	1976	1977	1978	1977 over 1976	1978 over 1977
(1)	(2)	(3)	(4)	(5)	(6)
1. Foodgrains	319	319	319	Nil	Nil
2. Molasses	423	368	289	(-)	13.0
3. Condiments and Spices	318	309	324	(-)	2.8
4. Fruits and vegetables	380	497	564	(+)	30.8
5. Food Crops	332	349	360	(+)	5.1
6. Oil Seeds	525	606	677	(+)	15.4
7. Plantation Crops	296	310	308	(+)	31.4
8. Non-food Crops	438	516	565	(+)	26.2
All Crops	370	410	435	(+)	10.5

3.15 In respect of fruits and vegetables the sharp increase recorded during the previous year seems to have continued unabated during 1978 also. The increase under oil seeds, (11.7 per cent) attributed to the hike in the price of coconuts, does not compare favourably with the all India trend. The prices of

commodities grouped under 'non-food crops', prominently pepper and cashewnut, also generally moved up pushing up the group index by 11.2 per cent during the year. On the other hand there has been a marginal fall (0.6 per cent) under plantation crops compared to the position in the previous year.

3.16 The trend in the movement of wholesale prices during the different months of 1978 and for the past few years is furnished in Appendices 3.6 and 3.7. It is seen that the general index has been on the increase since 1975 and the trend has been more favourable to the cultivators of oil seeds and non-food crops.

Parity Index

3.17 The index number of parity between the prices received and paid by the farmer indicates the economic gain or loss of the farmer in the context of the price fluctuations in the market. The parity index during 1978 at 102 (Table 3.7) reflected a situation favourable to the farmer as in the previous year. While the index of prices received by the farmer went up in 1978 by 8 points over the previous year the resultant gain has been offset by a corresponding increase in the prices paid by the farmer. The year witnessed an increase in both the domestic expenditure and the paid out costs of cultivation, the two components of index of prices paid by the farmer. Nevertheless the index of prices received by the farmer ruled at a higher level at 429 compared to the index of prices paid by the farmer at 421.

TABLE 3.7
Index Number of Parity between Prices Received and Paid
by Farmers—Kerala
(Index Number)

Year	Prices received by farmers	Domestic expenditure	Farm cultivation cost	Prices paid by farmers	Parity
(1)	(2)	(3)	(4)	(5)	(6)
1970	250	217	270	242	103
1971	227	218	278	246	92

(1)	(2)	(3)	(4)	(5)	(6)
1972	222	232	296	262	85
1973	308	280	336	307	100
1974	423	368	414	390	109
1975	404	401	454	427	95
1976	406	356	469	409	99
1977	421	347	488	411	102
1978	429	357	498	422	102

3.18 Although the general index of parity is apparently favourable to the farming sector it may not reflect the real situation in respect of all the important crops in the State. The State Government have declared minimum support price in the case of paddy and tapioca during the year in order to help the cultivators.

Food Situation

3.19 The food situation remained more or less comfortable during the year 1977-78. With an internal production of 12.95 lakh tonnes of rice, and supplemented by supplies from outside the State, relatively lower food prices prevailed in the State. In fact the overall supply position registered an improvement during 1977-78. The total quantity of foodgrains imported on State account increased from 17.1 to 17.4 lakh tonnes in 1977-78. The imports of rice alone increased by more than one lakh tonne from 15.0 to 16.2 lakh tonnes. There has been a decline in the import of wheat by about 40 per cent from 2.1 to 1.2 lakh tonnes. The total foodgrains availability through public distribution system in 1977-78 remained the same as in the previous year at 323 gm. per capita per day. (See Table 3.8). The buoyancy on the food front had its favourable impact on the open market with easy supply position and lower prices. This is partly reflected in the fall in the absorption of food grains through the public distribution system. The quantity of rice distributed through the public distribution system declined from 13.6 to 9.0 lakh.

TABLE 3.8
Per capita Availability of Food in Kerala

Particulars	Grms/day.							
	1971	1972	1973	1974	1975	1976	1977	1978 (Provisional)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Rice from internal production in the State	149	152	147	135	140	137	128	130
2. Rice from import on State account	95	97	88	89	60	103	171	100
3. Total rice in the State (1+2)	244	249	235	224	200	240	299	230
4. Wheat from import on State account	7	10	24	29	60	45	24	15
5. Total food grains (3+4)	251	259	259	253	260	285	323	245
6. Rice equivalent of tapioca from within the State	199	229	234	228	222	208	196	192
7. Total (5+6)	450	488	493	481	482	493	519	515

tonnes and that of wheat from 65 to 36 thousand tonnes. The monthly average off-take of rice from the public distribution system declined from 114 to 75 thousand tonnes and that of wheat from 5 to 3 thousand tonnes. (See Table 3.9). The import of rice on State account increased by 118 thousand tonnes (See Table 3.10) while that of wheat declined by 87 thousand tonnes.

TABLE 3.9

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

Month	Rice Distributed (in tonnes)		Wheat Distributed (in tonnes)	
	1977	1978	1977	1978
(1)	(2)	(3)	(4)	(5)
January	98702	78431	8940	3271
February	98776	67142	5407	2606
March	123323	89658	5531	2832
April	122017	82178	4981	2426
May	132196	81324	11410	2515
June	128297	85910	4817	2898
July	132139	84303	5144	3556
August	137800	87685	4947	3906
September	105405	77419	3930	2906
October	95682	56489	3554	2320
November	92616	61974	3470	2996
December	95771	49214	3643	2777
Total	1362724	895727	65174	35791
Monthly average	113560	74644	5431	2983

* Quantity actually drawn by ration card holders.

TABLE 3.10

*Imports of Food Grains on State Account**

Month	(in tonnes)			
	1977		1978	
	Rice	Wheat	Rice	Wheat
(1)	(2)	(3)	(4)	(5)
January	100000	20000	135000	10000
February	100000	27000	135000	10000
March	100000	20000	135000	10000
April	125000	20000	135000	10000
May	125000	20000	135000	10000
June	135000	20000	135000	10000
July	135000	20000	135000	10000
August	142500	20000	135000	10000
September	135000	10000	135000	10000
October	135000	10000	135000	10000
November	135000	10000	135000	10000
December	135000	10000	135000	10000
Total	1502500	207000	1620000	120000

* Allotment from Central pool only

3.20 There has been a slight decline in the total per capita food availability by 4 grams during 1978. This fall is attributable to decline in tapioca production during the year. In computing the per capita availability

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of food the quantity of rice imported by private traders is excluded. The relative abundance in the availability of rice both through the public distribution system and the open market has depressed the farm price of tapioca which in turn has resulted in the decline in its production. The availability of rice both on account of internal production and import on State account improved further from 171 to 180 gm. per capita per day. However, the import of wheat on State account declined substantially almost by 50 per cent over the previous year's level; with the result, the food grains availability through public distribution system remained at the previous year's level. The increased availability of rice in the open market about which reliable data are not available must have made up the shortage. The increased intake of wheat seen during 1975 and 1976 appears to have been only a transient phenomenon arising out of the compulsions of shortages in rice.

3.21 The network of public distribution system continued to maintain its tempo. There has been marginal improvement in the wholesale and retail outlets with the addition of more wholesale and retail shops. (See Table 3.11). There was also marginal improvement in the quantities of articles distributed such as coarse clothes and kerosene through the public distribution system.

TABLE 3.11

Public Distribution System for Essential Commodities in Kerala

Particulars	Unit	1977	1978
(1)	(2)	(3)	(4)
1. No. of ration card and permits (as on 1st April)			
(a) Ration cards for families	No.	4030279	4036717
(b) Ration permits for institutions	do.	5720	4833
2. No. of F. C. I. Sub Depots	do.	22	22
3. No. of Wholesale shops			
(a) Co-operative	do.	50	62
(b) Others	do.	212	213
(c) Total Wholesale shops	do.	262	275
4. No. of retail shops			
(a) Co-operatives	do.	2902	2911
(b) Others	do.	8877	8950
(c) Total	do.	11779	11861
5. Quantity of coarse clothes (Allotted)	Std. Bales	9161	9276
6. Wheat products distributed	..	N.A.	N.A.
7. Sugar	M.T.	91930	82308**
8. Kerosene	M.T.	115562	129104

** For the first eight months only. Sugar decontrol came into effect from 16-8-1978 onwards. But the allotment of sugar for 8/78 was allowed to be distributed up to 9/78.

TABLE 3.12
Essential Commodities Distributed by Kerala State Civil Supplies Corporation

Item	1976-77		1977-78	
	4/76 to 3/77 quantity (in tonnes)	Value (Rs. in lakhs)	4/76 to 3/77 quantity (in tonnes)	Value (Rs. in lakhs)
(1)	(2)	(3)	(4)	(5)
1. Wheat	47.7	0.6	2700	34.09
2. Wheat products:				
Produced	892.4	521.3	..	..
Purchased	28724.4	..	324	4.94
3. Rice outside State	..	..	18899	361.08
4. Rice within the State	49576.9	1142.1	2150	33.53
5. Pulses	1490.4	27.7	737	17.47
6. Coconut/edible oils	517.8	45.0	73	8.17
7. Chillies	15.3	1.2	9	0.82
8. Soap	..	0.8	..	0.20
9. Sugar	456.4	22.2	133	4.94
10. Tapioca	..	..	..	..
11. Paper for note books	5772.6	41.2	..	17.35
12. Petrol lubricants	..	68.8	2148(k1)	71.29
13. Baby milk food	3.5	0.7	4	0.81
14. Uniform cloth to students ('000 metres)	3038.4	144.9	2801.5	144.19
15. Motor spirits, diesel and lubricants	..	..	..	..
16. Coriander	..	..	7	0.44
17. Vegetable	..	..	..	10.60
18. Provisions and other items	..	3.5	..	2.98
Total	..	2029.3	..	712.30

TABLE 3.13
Procurement of Paddy

Month	Quantity in Tonnes	
	1976-77	1977-78
(1)	(2)	(3)
July	269	126
August	439	89
September	265	..
October	5012	3671
November	5454	4082

(1)	(2)	(3)
December	2101	2755
January	3454	615
February	4632	950
March	7282	4699
April	4588	2575
May	1416	271
June	436	1139
Total	35348	20972
Proportion of paddy procured to total available for consumption from internal production in per cent		
	2.09	1.62

Civil Supplies Corporation

3.22 The activities of the State Civil Supplies Corporation are an adjunct to the public distribution system. The Corporation has expanded its distribution network during 1978. The Corporation has now nine district depots, 11 retail depots (one at each district headquarters) one sub-depot and one retail depot at Sherthalai; one retail depot at Wellington Island, 2 vegetable shops one each at Trivandrum and Ernakulam and 5 petrol pumps, one each at Trivandrum Quilon, Kottayam and two at Ernakulam. On account of the improvement in foodgrains availability the participation in the distribution of foodgrains and products by the Corporation declined. Trade in foodgrains and wheat products accounted for nearly 90 per cent of the turnover of the Corporation till 1977. In 1977-78 the share of these articles declined to 60 per cent. Consequently the value of sales declined to 38 per cent from Rs. 1872 lakhs in 1976-77 to Rs. 712 lakhs in 1977-78 (See Table 3.12). More emphasis has, therefore, been laid on other essential items. Partly, the decline in activity has been arrested by the take over of the distribution of school uniform clothes.

Procurement of Paddy

3.23 The procurement of paddy declined further from 59 thousand tonnes in 1976-77 to 35 thousand tonnes in 1977-78. The proportion of paddy procured to total production declined from 2.09 to 1.62 per cent (See Table 3.13). A major change introduced in the levy system has been the granting of exemption from levy for the first 2 acres of the landholders belonging to all slabs. Further the levy rates were reduced to all classes of land in all the slabs.

CHAPTER 4
AGRICULTURE

Crop Production

The year 1977-78 witnessed satisfactory improvement in agricultural production. The index number of agricultural production registered an increase of 4 points from 147.6 in 1976-77 to 151.6 in 1977-78, although the State has yet to reach the average agricultural production level of 152.1 reached during the Fourth Five Year Plan. (See Table 4.1). Relatively favourable climate, increases in the consumption of inputs especially fertilisers, notable improvements in the production of pepper and a leap in the production of coffee have all contributed towards the satisfactory performance of the agricultural sector during the review period. The year also saw the effective implementation of the massive programme of agricultural development viz. World Bank assisted Kerala Agricul-

tural Development Project. Among the food crops, cereals as well as pulses registered significant increases. The index number of production of these crops rose by 4 points and 3.5 points respectively over the previous year. Plantation crops registered the largest increase of about 15 points during the year. The production increases are largely due to improvements in productivity the index of which rose by 2.6 points over the previous year. Productivity increases have been registered in almost every category of crops but most notably in cereals whose productivity index increased by 5 points over the previous year. The increase in area has been only 0.6 point. The largest increase in area has been registered in plantation crops (about 7 points). On the other hand the area registered a decline among the food crops especially the cereals.

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	1976-77	1977-78*	Average of 5 years 1969-70 to 1973-74	1976-77	1977-78*	Average of 5 years 1969-70 to 1973-74	1976-77	1977-78*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All Crops (A+B)	128.3	128.0	128.6	152.1	147.6	151.6	118.6	115.3	117.9
A. Food Crops (1+2)	121.4	120.2	120.0	161.9	155.1	159.3	139.4	129.1	132.7
1. Food Grains (a+b)	112.5	109.5	108.3	124.8	120.3	124.3	110.9	109.9	114.7
(a) Cereals	113.9	111.0	109.6	125.3	120.6	124.6	110.0	108.7	113.6
(b) Pulses	88.6	89.4	86.8	76.1	93.6	97.1	85.9	112.2	111.8
2. Non-food Grains	135.0	136.3	137.8	196.2	187.5	191.8	145.3	137.6	139.2
B. Non Food Crops (i+ii+iii)	140.9	142.7	144.7	126.9	136.7	139.8	97.2	95.8	96.6
(i) Oil Seeds	143.2	137.7	138.5	119.0	102.7	103.1	89.1	74.6	74.4
(ii) Plantation Crops	144.1	159.8	166.5	224.7	303.4	318.3	155.9	189.7	191.2
(iii) Other Commercial Crops	90.4	95.0	96.0	97.9	101.8	101.8	108.1	107.2	106.1

*Based on provisional estimates.

Cereals: Rice, Jowar, Ragi.

Non food grains: Banana, Tapioca, Sugarcane, Pepper, Ginger, Arecanut, Cardamom, & Cashewnut.

Oil Seeds: Ground Nut, Sesamum & Coconut.

Plantation crops: Tea, Coffee, Rubber.

Other Commercial Crops: Lemongrass, Cotton and Tobacco.

Farm Commodity Prices

4.2 Farm prices of major agricultural commodities exhibited mixed trend during 1978. More or less, the trends and behaviour pattern of the previous year continued for 1978 also. In general the price of foodgrains and substitutes declined while that of industrial raw materials increased (See Table 4.2). The

continued easy position with respect to rice availability from other states in the open market depressed the internal price of paddy. The average price level declined from Rs. 139 to Rs. 128 per quintal. The price of tapioca also declined from around Rs. 33 to Rs. 29 per quintal in consonance with that of rice. The price of coconut increased significantly from Rs. 948 to Rs. 1079. The largest increase in price among farm

TABLE 4.2

Average Farm Prices of Principal Commodities

Commodity	Unit	1977	1978	Change over the previous year	
				Actual	Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1. Paddy	Rs./Quintal	139.20	128.21	(-) 10.99	(-) 7.90
2. Tapioca	"	32.51	29.16	(-) 3.35	(-)10.30
3. Coconut	Rs./1000 Nos.	948.03	1079.16	(+)131.13	(+)13.83
4. Pepper	Rs./Quintal	1613.66	1603.02	(-) 10.64	(-) 0.66
5. Ginger	"	1353.99	974.47	(-)379.52	(-)28.03
6. Rubber	"	625.80	876.87	(+)251.07	(+)40.12

Note: Figures for 1978 are provisional.

commodities has occurred in the case of rubber and the largest fall in the case of ginger. The price of rubber rose from Rs. 626 to Rs. 877 per quintal. The price of ginger declined from Rs. 1356 to Rs. 974. The price of pepper declined marginally from Rs. 1614 to Rs. 1603. The State Government announced support prices for paddy and tapioca as part of the effort in stalling the declining prices.

Farm Input Prices

4.3 The year 1978 witnessed stability in the prices of farm inputs especially fertilizers. It has been possible to maintain the reduced level of prices attained in 1977. In the case of urea however the prices could be brought down from Rs. 1650 to Rs. 1550 per tonne. The price of insecticides and fungicides exhibited mixed behaviour. In some cases the prices declined while in others they increased. But in general, price stability could be maintained.

Climate

4.4 The State received more than normal annual rainfall of about 319 cms. during 1977. (See Table 4.3). The distribution of rainfall also appeared to be relatively better. The rainfall received in the crucial months of April, May & October has been much above the normal. Summer showers as well as the pre-monsoon showers which are relatively scanty have been critically below normal in 1978. This deficit in rainfall is likely to have adverse impact on the dry land crops whose production is critically conditioned by the amount of rainfall received during the January-March period.

TABLE 4.3

Average Monthly Rainfall in Kerala

(Rainfall in milli-metres)

Month	Average Monthly Rainfall		
	Normal	1977	1978
(1)	(2)	(3)	(4)
January	18.5	0.6	3.2
February	19.3	13.5	15.2
March	46.4	35.0	36.8
April	115.6	116.3	66.4
May	245.0	341.5	N R
June	672.8	602.8	N R
July	686.4	719.9	N R
August	422.6	230.2	N R
September	242.0	198.3	N R
October	306.9	463.0	N R
November	190.9	358.9	N R
December	51.2	6.6	N R
Total	3017.6	3086.6	N R

N R: Not Reported.

Land Use

4.5 There has been very little change in the land use pattern in the State during 1977-78. The net sown area registered an increase of about 1200 hectares. Cultivation in the State has been taken to the very margin with nearly 57 per cent of the geographical area put under cultivation. (See Table 4.4). If the land put under forests is also considered as one of the alternative ways of productive use of land, land put under

productive purposes in the State would have reached 84.5 per cent of the geographical area. Further intensification of the use of agricultural land has been registered during the year. The area sown more than once

increased by 12 thousand hectares and the proportion of area sown more than once to the net sown area increased from 18.9 to 19.2 during 1977-78.

TABLE 4.4
Land Use Pattern in Kerala

(Area in hectares)

Classification of Land	1976-77		1977-78		Actual change over the previous Year
	Actual	Per cent	Actual	Per cent	
(1)	(2)	(3)	(4)	(5)	(6)
1. Total Geographical Area ..	3885497	100.00	3885497	100.00	..
2. Forest ..	1081509	27.83	1081509	27.83	..
3. Land Put to Non-agricultural Uses ..	260388	6.70	254276	6.54	(-)6112
4. Barren and Uncultivable Land ..	78837	2.03	90027	2.32	(+)11190
5. Permanent Pastures and Other Grazing Land ..	16095	0.42	9454	0.24	(-)6641
6. Land Under Miscellaneous Tree Crops ..	72668	1.88	61900	1.59	(-)10768
7. Cultivable Waste ..	115726	2.98	123971	3.19	(+)8245
8. Fallow Other than Current Fallow ..	22264	0.57	24513	0.63	(+)2249
9. Current Fallow ..	37409	0.96	38063	0.98	(+)654
10. Net Area Sown ..	2200601	56.64	2201784	56.67	(+)1183
11. Area Sown More Than Once ..	732849	18.86	744829	19.17	(+)11800
12. Total Cropped Area ..	2933450	75.50	2946613	75.84	(+)13163

Note: Figures for 1977-78 are provisional.

Area Under Crops

4.6 There has been significant changes in the area under a few crops (See Table 4.5). The area under rice declined by 14 thousand hectares. At the same time there has been substantial increases in the area under a number of crops. The largest increase in area

has been registered under coffee which increased by 12000 (hectares, followed by cashew, (6000 hectares), coconut (4000 hectares), pepper (1500 hectares) and ginger and ragi (over 1100 hectares each). Though marginal the increase in area under pulses by over 880 hectares is very significant. Thus there has been a net addition in the cropped area by 12600 hectares.

TABLE 4.5
Area under Principal Crops

(in hectares)

Crop	1976-77	1977-78	Change Over the Previous Year	
			Actual	Percentage
(1)	(2)	(3)	(4)	(5)
1 Rice ..	854374	840374	(-)14000	(-) 1.6
2 Ragi ..	1993	3134	(+) 1141	(+)57.3
3 Pulses ..	36529	37410	(+) 881	(+) 2.4
4 Sugarcane (gur) ..	7172	7172	..	..
5 Pepper ..	108666	110156	(+) 1490	(+) 1.4
6 Ginger ..	10347	11447	(+) 1100	(+)10.6
7 Turmeric ..	2355	2347	(-) 8	(-) 0.3
8 Cardamom ..	51681	51681	..	..
9 Arecanut ..	68356	68616	(+) 260	(+) 0.4
10 Coconut ..	694985	699119	(+) 4134	(+) 0.6
11 Cashewnut ..	119326	119305	(+) 5979	(+) 5.3
12 Banana & Other Plantains ..	51697	51652	(-) 45	(-) 0.1
13 Tapioca ..	323278	322682	(-) 596	(-) 0.2
14 Sweet Potato ..	5963	5963	..	..
15 Groundnut ..	16622	16622	..	..
16 Sesamum ..	15970	16078	(+) 108	(+) 0.7
17 Tea ..	36161	36161	..	..
18 Coffee ..	40502	52644	(+) 12142	(+)30.0
19 Rubber ..	209723	209723	..	..

* Provisional Estimate.

Production of Crops

4.7 The most significant increase in production has been that of rice which rose by 41 thousand tonnes (See Table 4.6). Next to rice, coffee registered the largest increase in production of nearly 13000 tonnes.

Another crop whose production increased notably is pepper, the production of which increased by about 6300 tonnes. (25 per cent). Other important crops whose production increased are ginger (3600 tonnes), cashew (4700 tonnes) and banana (3500 tonnes).

TABLE 4.6
Production of Principal Crops in Kerala

Crop	Units	1976-77	1977-78 *	Change Over the Previous Year	
				Actual	Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1 Rice	(Thousand Tonnes)	1254.00	1294.64	40.64	3.2
2 Ragi	"	2.19	1.40	(-)0.79	(-)36.1
3 Pulses	"	16.27	16.88	0.61	3.8
4 Sugarcane (gur)	"	40.46	40.99	0.53	1.3
5 Pepper	"	24.50	30.78	6.28	25.6
6 Ginger	"	25.45	29.03	3.58	14.1
7 Turmeric	"	2.21	2.25	0.04	1.8
8 Cardamom	"	1.42	1.42	..	..
9 Arecanut	(in Million Nuts)	11303	11345	42	0.4
10 Coconut	"	3348	3367	19	0.4
11 Cashewnut	(Thousand Tonnes)	87.26	91.93	4.67	6.4
12 Banana & Other Plantains	"	390.61	394.07	3.46	8.9
13 Tapioca	"	5125.52	5114.04	(-)11.48	(-)0.2
14 Sweet Potato	"	26.84	26.84	..	..
15 Groundnut	"	17.45	17.45	..	..
16 Sesamum	"	4.45	4.47	0.02	0.4
17 Tea	"	41.64	41.64	..	..
18 Coffee	"	15.03	27.65	12.62	83.9
19 Rubber	"	139.35	139.35	..	..

* Provisional estimates.

Productivity of Crops

4.8 There has been significant improvements in the productivity of some crops. The productivity of

coffee increased by about 41 per cent, that of pepper by 24 per cent and of rice by 5 per cent (See Table 4.7). Modest increases in productivity have also been registered in ginger, turmeric, sugarcane and pulses.

TABLE 4.7
Productivity of Principal Crops in Kerala

Crop	Unit per ha.	Average Yield per Hectare		Change over the Previous Year	
		1976-77	1977-78 *	Actual	Per cent
(1)	(2)	(3)	(4)	(5)	(6)
1 Rice	Kg.	1468	1541	73	5.0
2 Ragi	"	1099	447	(-)652	(-)59.9
3 Pulses	"	445	451	6	1.3
4 Sugarcane (Gur)	"	5636	5715	79	1.4
5 Pepper	"	225	279	54	24.0
6 Ginger	"	2457	2536	79	3.2
7 Turmeric	"	938	959	21	2.2
8 Cardamom	"	27	27	..	..
9 Arecanut	Nuts	165355	165340	(-)15	..
10 Coconut	"	4817	4817	..	..
11 Cashewnut	Kg.	770	771	1	0.1
12 Banana & Other Plantains	"	7556	7629	73	1.0
13 Tapioca	"	15855	15846	(-) 9	(-)0.1
14 Sweet Potato	"	4501	4501	..	..
15 Groundnut	"	1050	1050	..	..
16 Sesamum	"	279	278	(-) 1	(-)0.3
17 Tea	"	1152	1152	..	..
18 Coffee	"	371	525	154	41.5
19 Rubber	"	664	664	..	..

* Provisional.

Rice Production

4.9 The production of rice increased by about 41 thousand tonnes over the previous year registering an increase of 3.2 per cent (See Table 4.8). This increase

in rice production has resulted from improvement in productivity by 11.7 per cent reaching an all time high of 1599 kg. of rice per hectare. The area under rice registered a decline of 14 thousand hectares (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 (percentage)	Production (Rice) (in '000 tonnes)		Change in production over the previous year (percentage)	Yield (Rice) (Kg./Hect)		Change in yield over the previous year (percentage)
	1976-77	1977-78*		1976-77	1977-78*		1976-77	1977-78*	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Virippu (Autumn)	363.8 (42.6)	365.1 (43.5)	(+)0.36	487.7 (38.9)	551.8 (42.6)	(+13.14)	1340	1518	(+)13.28
Mundakan (Winter)	381.7 (44.7)	370.9 (44.1)	(-)2.83	587.7 (46.8)	559.2 (43.2)	(-)4.85	1539	1514	(-) 1.62
Punja (Summer)	108.9 (12.7)	104.4 (12.4)	(-)4.13	178.6 (14.3)	183.7 (14.2)	(+)2.85	1709	1766	(+) 3.33
Total	854.4 (100.4)	840.4 (100).0	(-)1.64	1254.4 (100.0)	1294.7 (100.0)	(+)3.21	1431	1599	(+)11.74

* Provisional estimates

Note:—Figures in brackets indicate percentage to total.

4.10 The largest increase in production of 13 per cent has taken place in the 'virippu' (Autumn) crop, followed by 3 per cent in the Punja (summer) crop. The 'mundakan' or winter crop has declined by 5 per cent. Significant shifts are taking place in the inter-seasonal rice production pattern. The share of the virippu season over the years has been increasing while that of mundakan season has been declining, with the result that the contributions of these two seasons are now almost equal (around 43 per cent each). Share of the summer season is fairly constant at 14 per cent. The area under virippu crop has increased marginally but the productivity increased significantly. Both area and productivity of mundakan crop registered a decline. The area under summer also declined but the productivity registered an increase of over 3 per cent. Thus the change in inter seasonal pattern of rice production continued in favour of virippu crop. A remarkable feature has been that the increase in production during this season has largely arisen from improved productivity rather than expansion in the area. Stability, both in production and productivity, is more pronounced during this season than the other two seasons. This trend has significant implications in designing an appropriate strategy for rice production.

High Yielding Varieties of Rice

4.11 The area under high yielding varieties of rice registered an increase of nearly 30 thousand

hectares during 1977-78 and reached a coverage of over one-third of the total rice area in the State. (See Table 4.9). The contribution from high yielding varieties to the total rice production is more than 50 per cent though it accounts for only a little over one-third of the area. The contribution from high yielding varieties made very significant improvement during the year. It rose from 39 per cent to 52 per cent of the total output. The productivity of high yielding varieties has also registered a significant improvement of 15 per cent. The area under high yielding varieties registered significant increase of 22 per cent over the previous year during virippu season. During mundakan season also area under high yielding varieties increased by 20 per cent. However, the area under high yielding varieties declined during the summer season by 17 per cent. This indeed is a disquieting feature which needs investigation. The contribution to production from high yielding varieties during virippu season increased significantly from 38 to 52 per cent, during mundakan season from 23 to 32 per cent, while during punja declined from 79 to 66 per cent. Concomitantly, the productivity of high yielding varieties registered the maximum increase during the virippu season by 27 per cent. All these indicate that the spread of high yielding varieties is steadily improving during the virippu season, although from the point of climatic conditions the other two seasons are relatively more congenial for the growth of high yielding varieties.

TABLE 4.9
High Yielding Varieties of Rice in Kerala

Season	Quantity		Proportion of HYV to Total Rice (Per cent)	
	1976-77	1977-78*	1976-77	1977-78*
(1)	(2)	(3)	(4)	(5)
Area (in Hectares)				
Virippu	115764	142138	31.82	38.93
Mundakan	74003	88939	19.60	23.98
Punja	73407	61599	67.42	59.00
Total	263974	292676	30.90	34.83
Production (Tonnes)				
Virippu	185784	287728	98.10	52.14
Mundakan	136488	179769	23.22	32.14
Punja	141703	123036	79.33	66.70
Total	463975	593036	39.00	52.28

	(1)	(2)	(3)	(4)	(5)
Average Yield (Kg. per Hectare)					
Virippu		1605	2024		
Mundakan		1825	2021		
Punja		1930	1997		
Total		1758	2017		

*Provisional Estimates

Development Programmes

4.12 Major development programmes under implementation during the Fifth Five Year Plan were continued. In some projects expansion took place. The most important has been the addition of 100 Intensive Paddy Development (IPD) units (See Table 4.10). With this addition the total number of IPD units in the State has reached 489 covering nearly two fifth of the wet land area under rice.

TABLE 4.10
Selected Indicators of Agricultural Development

Programme	Unit	1976-77	1977-78
(1)	(2)	(3)	(4)
1. Fertilizer Consumption ..	Tonnes	69406	81400
Nitrogen ..	..	33553	36995
Phosphorus ..	..	15696	19069
Potash ..	..	20157	25336
2. Plant Protection Seeds Treated ..	Lakh ha.	0.86	1.15
Liquid Fungicides (in terms of Technical Grade)	Litres	1814	7 tonnes
Liquid Insecticides (in terms of Technical Grade)	..	7800	159 tonnes
Solid Fungicides (") ..	Tonnes	15.87	195
Solid Insecticides ( " ) ..	..	251.25	376
Area Treated } ..	Lakhs	7.57	6.65
Area Spraying } ..	Lakh ha.	1.13	1.15
3. High Yielding Seeds ..			
HYV and Other Improved Seeds Distributed from Seed Farms or Government Agencies	Tonnes	5015*	1226
Coverage of HYV including Natural Spread	Lakh ha.	4.52	4.37
4. Quality Planting Materials Distributed ..			
Coconut Seedlings ..	Lakh Nos.	5.85	10.32
Areca nut Seedlings ..	..	..	..
Rooted Pepper ..	..	9.59	11.90
Cashew Layers ..	Nos.	12239	15063
Cashew Seedlings ..	Lakh Nos.	23.39	0.34
5. Farmers Training Programme ..			
Farmers Trained in Specialised Courses	No.	79	80
Special Group Discussions held ..	..	18	15
Training Camps Organised ..	..	423	401
6. I.P.D. Programme ..			
Units Organised ..	..	100	489
Area Covered ..	(000 ha)	20	185.00

* As per Departmental Assessment

(1)	(2)	(3)	(4)
7. Coconut Package Programme			
Units Organised ..	Nos.	187	187
Area Covered ..	('000 ha)	93.50	..
Demonstrations Organised ..	Nos.	1823	1838
Fertilizer Distributed ..	Tonnes	4257	..
Medium Term Loans Distributed (through Co-operatives) ..	(Rs. '000)	156.00	589.62
Filter Points Established ..	Nos.	52	278
Filter Points Connected With Pumps ..	"	N.A.	1250
Wells Dug ..	"	3082	..
Area Benefited ..	Ha	4198	9925
8. Pilot Project for Replanting Coconut			
Area Covered ..	"	1031	55825
Seedlings Distributed ..	Nos.	23865	16300
9. Survey and Surveillance Programme			
Unit Established ..	"	15	10
Area Protected ..	Lakh ha.	N.A.	N.A.
10. Short Term Loans			
Amount Distributed ..	(Rs. l kha)	432	303
11. Cashew Plantation Scheme			
Area Covered ..	Ha.	11119	11149
Amount Disbursed as Subsidy ..	(Rs. '000)	1935.6	1956 †
12. Free Supply of Pumpsets to Panchayats ..			
	Nos.	173	..
13. Trees Sprayed for Control of Coconut Leaf Disease ..			
	Lakh Nos.	45.87	..
14. Other Items			
Students Cultivation Programme Institutions Participated ..	Nos.	..	1100
Area Involved ..	Ha.	..	230
15. Tapioca Package Programme ..			
Demonstration Plots Laid Out ..			
1. Pure Crops ..	Nos.	..	698
2. Inter Crop ..	"	..	311

N.A. Not available.

4.13 The coconut package programme found new levels of attainments during the period, significant of them being the expansion of medium term credit by over Rs. 433 lakhs, establishment of 226 filter points and the energisation of 1250 pumps. There was also significant improvements in the project for replanting coconut. An additional 4500 hectares have been brought under this programme. Cashew plantation scheme registered significant progress. Additional area covered by the programme has been over 11000 hectares.

4.14 Fertiliser consumption in the State registered a substantial improvement of 17 per cent over the previous year, attaining an all time high of 81400 tonnes. Consumption between the various types of fertilisers also remained in healthy balanced combinations. The largest increase has been in potassic fertilizers followed by phosphatic and nitrogenous in that order. The increasing use of phosphatic and potassic fertilisers is a healthy development in the fertiliser consumption pattern of the State.

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4.15 With the addition of 10 more units, the capability of the pest and disease survey and surveillance net-work has been improved. There has been a decline of nearly 90,000 hectares in the area treated with plant protection chemicals. Pesticide consumption, however, has gone up considerably.

4.16 There has been a notable decline in the quantity of high yielding varieties of seeds distributed from seed farms and other governmental agencies. The decline has been more than 75 per cent over the previous year. However, there has been overall improvements in the distribution of quality planting materials. The distribution of coconut seedlings increased by 89 per cent, rooted pepper cuttings by 25 per cent and cashew layers by 23 per cent.

Kerala Agricultural Development Project

4.17 One of the most ambitious agricultural development projects launched by the Government is the Kerala Agricultural Development Project supported

by the World Bank involving an investment of Rs. 63 crores spread over a period of 7 years from April 1977. Every aspect of this major project has been initiated during the year 1977-78. Out of a total of 105 package units envisaged (75 for coconut rehabilitation programme, 10 for coconut new planting programme and 20 for pepper rehabilitation programme) 22 units have been commenced. Each package unit is provided with a team of field extension staff consisting of one Junior Agricultural Officer and 2 Agricultural Demonstrators. As a first step the preparation of farm inventory has been completed in over 3840 farms covering 2730 hectares and farm plans have been prepared for 2440 holdings covering 1510 hectares. Necessary arrangements have also been made for making available finances from Kerala Cooperative Central Land Mortgage Bank and other commercial banks for the project.

4.18 The expert team constituted to find out a suitable site for the seed garden complex, has identified an area of about 500 hectares in the vested forest lands in Nilambur. The land has been reserved for the project by the Government. A technical advisory committee was constituted to advise the Director, SADU in planning the lay-out and crop pattern and to review the progress in setting up the seed garden complex. The project incurred an expenditure of Rs. 19.38 lakhs out of Rs. 50 lakhs allocated for the year.

Kerala State Coconut Development Corporation

4.19 The main project initiated by the Kerala State Coconut Development Corporation during 1977-78] has been the setting up of two integrated coconut processing complexes in the State, one in the south and another in the north, with a total capital outlay of Rs. 320 lakhs. Each unit will be having a crushing capacity of 60 tonnes of copra per day of 24 hours. The main aim of the proposed complexes is to bring about integration of processing and marketing. The southern complex is being set up at Mamom, Attingal, in Trivandrum district. Civil construction and erection are in progress. The northern complex is to be set up at Elathur in Kozhikode district. Steps have been taken to acquire the site selected and to purchase the required machinery.

Kerala Agro Industries Corporation

4.20 There are two subsidiary corporations of the Kerala Agro-Industries Corporation viz. the Kerala Agro-Machinery Corporation, and Meat Products of India. The Agro-Machinery Corporation has already started production of Kubota power tillers. The Meat Products of India who are already running a unit at Koothattukulam has now entered into an agreement with a Danish firm for the preparation of a project report for meat processing units. The foundation stone has already been laid and civil works have

been commenced for a fruit processing unit at Punalur which is expected to go into production by the second half of 1980. Other projects which are under consideration are Mechanical Compost Plant, Kraft Paper Project, Agro-Industrial Complexes and Pesticides Formulation Units. The Corporation has been largely concentrating its activities on the sale of machinery, including sale under hire purchase system, custom hiring and running service centres. During the period under review 6 tractors and 39 power tillers were sold directly and 228 pump sets, 26 tractors and 53 tillers under hire purchase. The Corporation maintained a fleet of 28 tractors, 10 power tillers and 2 bulldozers for custom hiring purposes (See Table 4.11). The project for setting up agro service centres as part of the effort to rehabilitate self employed engineering graduates did not go very far. The difficulty in securing support from financial institutions, delay in the disbursement of subsidy from the Government of India and the unwillingness of the participants to continue in the project once they get better opportunities were some of the reasons attributed for this. The Corporation incurred a loss of nearly Rs. 18.5 lakhs during 1977-78.

TABLE 4.11

Activities of Kerala Agro Industries Corporation

(Rs. in lakhs)

Activities	1976-77	1977-78
(1)	(2)	(3)
1. Direct Sale of Agricultural Machinery and Implements	32.70	12.97
2. Hire Purchase Sales	21.42	32.59
3. Sale of Spare Parts	11.54	14.39
4. Sale of Kubota Components	1.63	..
5. Sale of Fertilisers	..	..
6. Sale of Paddy Seeds	..	0.35
7. Sale of Other Items	4.68	0.34
8. Sale of Agro Chemicals	0.90	0.60
9. Receipts from Hiring	8.55	6.60
0. Receipt from Work Shops/Service Stations	1.77	2.80
11. Repayment of Loans Issued	..	28.59
12. Profits before Provision for Reserve and Taxes	(-)-9.16	(-)-18.48

Kerala State Warehousing Corporation

4.21 The Kerala State Warehousing Corporation has a total warehousing capacity of over 112 thousand tonnes in 58 centres of which godowns in 27 centres with a total capacity of about nearly 47 thousand tonnes are owned by the Corporation and the rest hired Warehouses in 4 centres viz. Kanhangad, Kasargod, Wadakkancherry and Palghat are under construction.

4.22 There has been a decline in the overall activity of the Corporation. The deposit received in quantity diminished nearly by half and consequently the storage charges collected declined by 25 per cent (See Table 4.12). The result has been a decline in the profit earned by the Corporation which fell steeply

from 17.5 lakhs in 1976-77 to 3.5 lakhs in 1977-78. There were some significant changes in the mix of commodities received for deposits. The share of fertiliser declined from 56 to 33 per cent, CARE articles rose from 10 to 16 per cent and sugar from 7 to 16 per cent (See Table 4.13).

TABLE 4.12
Activities of the Kerala State Warehousing Corporation

	Item	Unit	1976-77	1977-78	Actual change	Percentage Change
	(1)	(2)	(3)	(4)	(5)	(6)
1	Deposits Received	No.	16,877	11,550	(-)-5,327	(-)-31.56
2	Deposits Received (Quantity)	Tonnes	4,30,604	2,21,920	(-)-2,08,684	(-)-48.46
3	Bank Advances	Rs.	1,85,00,000	1,82,60,700	(-)-2,39,300	(-)-1.29
4	Storage Charges Collected	Rs.	59,11,133	44,22,402	(-)-14,88,731	(-)-25.19
5	Profit	Rs.	17,46,288	3,51,433	(-)-13,94,855	(-)-79.88

TABLE 4.13
Commodity-wise Deposits received by the Kerala State Warehousing Corporation

Commodity	1976-77		1977-78	
	Commodity (Tonnes)	Per cent	Commodity (Tonnes)	Per cent
(1)	(2)	(3)	(4)	(5)
1. Foodgrains	73,464	17.05	43,476	19.59
2. Other food grains	10,299	2.39	967	0.44
3. Gram & Pulses	5,706	1.33	2,671	1.20
4. Pepper	441	0.10	474	0.21
5. Copra	293	0.07	172	0.08
6. Groundnut	185	0.04	285	0.13
7. Oil-cake	229	0.05	115	0.05
8. Arecanut	1,712	0.40	791	0.44
9. Cashew	321	0.07	7	..
10. Fertilizers	2,42,059	56.21	74,319	33.49
11. Care articles	40,919	9.50	34,683	15.63
12. Cement	3,203	0.74	11,454	5.16
13. Sugar	29,013	6.73	34,576	15.58
14. Coffee	728	0.16	1,217	0.55
15. Rubber	4,261	0.99	74	0.03
16. Cardamom	16	0.01	110	0.05
17. Miscellaneous	17,798	4.16	16,358	7.37
Total	4,30,604	100.00	2,21,920	100.00

State Farming Corporation of India

4.23 It has been possible for the State Farming Corporation to expand further the area under cultivation in the Aralam farm. Out of the total culturable area of 2510 hectares, already 1763 hectares have been

brought under different crops, mostly perennial crops such as coconut, cashew, rubber, pepper and cocoa. The major activity during 1977-78 was stabilisation of the plant population by gap-filling operations. The hybrid seed garden has attained a planted area of 50.50 hectares. Chowghat dwarf orange and Malayan dwarf (red, yellow and green) were used as dwarf parents in the hybrid seed garden. The total planted area under coconut was 675 hectares, cashew 826 hectares, rubber 223 hectares, pepper 21 hectares and lemongrass 71 hectares. In addition 290 hectares have been planted under newer varieties of tapioca such as 'Shri Visakhom' and 'Shri Sahya'. About 50 hectares were also planted under different annuals such as sesamum, turmeric, ginger, and banana. It has been possible for the farm to distribute 56 thousand stems of hybrid varieties of tapioca and 19 thousand cocoa seedlings during 1977-78. In addition 6,812 Panniyur-1 and 9,976 Karimunda pepper cuttings, 10,266 rubber budded stumps, 2,986 coffee seedlings, 3,542 cashew seedlings, 435 nutmeg seedlings, 448 clove seedlings and 116 coconut seedlings (NCD) were distributed.

Small Farmer Development

4.24 Programmes specifically oriented to the needs of the small farmers and marginal farmers are being implemented in the State in the districts of Cannanore, Trichur, Quilon and Trivandrum. Among the four agencies Quilon and Cannanore have already completed their original period of five years and the tenure has been extended further till March 1979 to accomplish the tasks. The scope, programme content and method of implementation of the small farmer development

programmes are likely to undergo a change, once the integrated rural development programme is introduced and extended. The small farmer development programmes have recorded significant achievements during 1977-78. Nearly 53 thousand more participants were identified and enrolment in the co-operatives increased by nearly 35 thousand. (See Table 4.14.) During this period, through the initiative and support of the SFDA, 3,991 wells were dug, 166 tanks were constructed, 83 filter point tube-wells were installed and 2,350 pump-sets, 369 plant protection equipment and 60 agricultural implements were distributed. Efforts were made to supplement the income of the farmers through the distribution of 4,067 milch cattle and 8,903 goats. Under the rural artisan scheme 89 artisans were assisted. For the benefit of landless agricultural labour 112 work bullocks were distributed. There has, however, been a general slackening in the availing of institutional credit by small farmers. Short-term credit disbursement declined sharply from Rs. 876 lakhs in 1976-77 to Rs. 230 lakhs during 1977-78. Similarly the medium-term loans disbursed declined from Rs. 468 lakhs to Rs. 217 lakhs. However the disbursement of long-term loans increased substantially from Rs. 39 lakhs to nearly Rs. 85 lakhs.

TABLE 4.14

Selected Indicators of the Progress of SFDA/MPAL Programme in the State

Indicators	Unit	Achievement	Cumulative
		during 1977-78	till the end of December 1978
(1)	(2)	(3)	(4)
(i) General:			
1. Participants Identified	Nos.	52603	497870
2. Enrolled in the Cooperatives	"	34744	222376
3. (a) Wells Dug	"	3991	13218
(b) Tanks Constructed	"	166	N.A.
4. Filter Point Tube Wells Installed	"	83	184
5. Pumpsets Distributed	"	2350	10879
6. Community Tube Wells Installed	"	2	46
7. Petty Minor Irrigation Works	Hectares	217.7	N.A.
8. Community Soil Conservation Works Executed	"	356	3960
9. Land Development Works Executed	Nos.	200	981
10. Seedlings and Planting Materials Supplied	"	13880*	226313
11. Dose Ploughs Distributed	"	2330	17353
12. (a) Plant Protection Equipments Distributed	"	369	4019
(b) Agricultural Implements Distributed	"	690	N.A.

(1)	(2)	(3)	(4)	(5)
13. Milch Cattle Supplied	Nos.	4067	13551	
14. Poultry Birds Supplied	"	580	13522	
15. Work Bullocks Supplied	"	112	N.A.	
16. Goats Supplied	"	8903	47506	
17. Custom Service of Tractors	"	..	..
18. Demonstration Plots Laid	"	1218	N.A.	
19. Fodder Plots Laid	"	..	323	
20. Homestead of Gardens Established	"	..	320	
21. Rural Custom Service Units Established	"	..	..
22. Farmers Trained	"	..	3100	
23. Expansion of District Poultry Farms	"	..	..
24. Piglings Supplied	No of farmers	..	..
25. Boats and Nets Supplied	No. of fishermen	93	..	
26. Participants Assisted under Rural Artisans Scheme	Nos.	89	..	
27. Participants Assisted under Rural Works Programme	Nos.	..	..
(ii) Strengthening of Co-operatives:				
28. Godown Subsidy to Cooperatives	Rs. in lakhs	..	1.55	
29. Managerial Assistance to Cooperatives	"	2	7.54	
30. Share Capital Loan to Cooperatives	"	..	2.00	
31. Capital Subsidy to Cooperatives	"	..	..
32. Interest Rebate to Cooperatives	"	..	..
33. Risk Fund Contribution to Cooperatives	"	..	..
(iii) Credit (Commercial Year)				
(a) Cooperatives				
Short Term	Rs. in lakhs	227.40	1070.88	
Medium Term	"	136.89	782.82	
Long Term	"	84.53	147.34	
(b) Commercial Banks				
Short Term	"	2.53	37.85	
Term Loans	"	79.76	296.88	
(c) Agro-Industries Corporation				
	"	..	0.88	

*Relates to Trivandrum District only.

NA.—Not Available.

Soil Conservation

4.25 Soil conservation efforts during 1977-78 resulted in the protection of 1,666 hectares of land of which 87 hectares were in the Kundah River Valley Project under a centrally sponsored scheme. The investment totalled nearly Rs. 45 lakhs in this sector. Among the lands protected include 520 hectares belonging to harijans and girijans. Considering the magnitude of the problem of soil erosion, investment in this sector is extremely small. Already considerable devastation has taken place and the malady of soil erosion is assuming gigantic proportions. A more imaginative

and dynamic programme for protecting the land resources in the State from the ravages of soil erosion is urgently required.

Soil Survey

4.26 Significant progress has been made in soil survey in the State. Reconnaissance soil survey has been completed in nearly 103 thousand hectares of Government and forest lands, 83 thousand hectares of land in command areas and in 37 thousand hectares of land in other areas. Similarly detailed soil survey has been completed in 12 thousand hectares of Government and forest lands and 45 thousand hectares in command areas.

Land Use Board

4.27 One of the major projects initiated by the Land Use Board during 1977-78 has been the land use survey of the Idukki district. Considerable progress has been achieved in this project. In order to use available up-to-date techniques in preparing the land use plan, the Board entered into an agreement with the Space Application Centre at Ahmedabad to conduct aerial survey of the Idukki district. The aerial survey of southern portion of Idukki district has been over. Photographs are being prepared in the Photo Interpretation Unit of the Land Use Board. The survey in respect of the Peermade taluk has been completed and the land use plan is being finalised. The field work in respect of Udumbanchola taluk is in progress. The Land Use Board conducted a reconnaissance soil erosion survey in Kottarakkara, Pathanapuram and Kunnathur taluks of the Quilon district. The survey report in respect of Kottarakkara taluk has been finalised and that for the Kunnathur taluk is under preparation. The field work in respect of Pathanapuram taluk is in progress. The Board has also undertaken a number of studies on various aspects of land use in the State. They include a study on the possibilities of maximising the returns of waste lands in the State and a study on the land use patterns for the Periyar Valley Irrigation Project. Formulation of a perspective land use plan for important crops is in progress.

Kerala Land Development Corporation

4.28 The first phase of the Kuttanad Development Project which is the most important project initiated by the Corporation has been completed in December 1977. It involved an investment of Rs. 375 lakhs enabling the raising of a second crop in 8,000 hectares of land. The second phase of the project involving an investment of Rs. 600 lakhs benefiting 12,000 hectares is scheduled to be completed in 1982. For the second phase, so far Rs. 40 lakhs have been spent by the end of the period 1977-78. Fall in the price of paddy has made inroads into the ability of the farmers to

repay the loans. The progress of implementation of the project is being adversely affected on account of the waning of interest on the part of the farmers.

4.29 The second major project initiated by the Corporation is the Trichur Kole Land Development Project. This will benefit about 15,500 hectares of land and help to raise an additional crop. The cost of the project is Rs. 904.91 lakhs which is to be shared between the Government and beneficiaries, the shares being Rs. 292.23 lakhs and Rs. 612.48 lakhs, respectively. The Agricultural Refinance and Development Corporation has agreed to extend refinance support upto 80 per cent. The project has already been inaugurated and is expected to be completed in 4 years. Ponnani Kole is another project proposed to be taken up by the Corporation to benefit about 3,200 hectares of land. A comprehensive project is under preparation. In the meantime a sub-project benefiting nearly 174 hectares has already been initiated. Investigation work is also in progress for the reclamation of about 1,600 hectares of land in Kattampally in Cannanore district.

Agricultural Marketing

4.30 One major on-going activity under agricultural marketing is quality improvement of consumer products through appropriate grading. Through the four State AGMARK laboratories and three sponsored laboratories it has been possible to grade 4,458 tonnes of articles valued at Rs.486 lakhs during 1977-78. Market surveys on cocoa, banana, arecanut and mango kernels have also been done during the year under review.

Wynad Development

4.31 An important project initiated in Wynad under the Western Ghat Development Programme is the establishment of a cardamom plantation in 1500 hectares of forest land to rehabilitate 750 dispossessed tribal families. The proposal is to organise co-operative joint farming by tribal families for cardamom cultivation in the Vested Forest land in the Wynad area. The land has been made available from the Vested Forests in Achoornam village of South Wynad taluk. With the assistance of the Cardamom Board, a project has been prepared. A society, viz. the South Wynad Girijan Joint Farming Co-operative Society Limited, to undertake farming operations was registered and this society started functioning during the year under reference. Already 8 hectares of primary nursery and 16 hectares of secondary nursery have been raised. Planting has been completed in 12 hectares.

4.32 Several projects have been initiated for the development of infrastructure facilities in Wynad, especially roads and minor irrigation. So far 18 roads including 5 bridges and 14 minor irrigation works have

been completed, creating a total road length of 87 km. and irrigation facilities in 554 hectares of land. Out of the total amount of Rs. 73.07 lakhs spent so far on infrastructure development programmes in Wynad the expenditures during 1977-78 was Rs. 29.23 lakhs.

Agricultural Credit

4.33 The co-operative credit system in the State registered further progress in extending credit support for farming operations. There has been allround improvement in the performance of the co-operative agricultural credit system in the State. The average membership of a society increased by 29 and share capital per society by about Rs.10 thousand. The financial viability of the societies has further improved with the increase in deposit by Rs. 28 thousand per society. The average working capital per society has passed the Rs.10 lakh mark (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)	(2)	(3)
1 Average membership per society (Nos.)	1,500	1,529
2 Average share capital per society (Rs.)	1,03,273	1,13,503
3 Average deposit per society (Rs.)	2,57,691	2,85,363
4 Average deposit per member (Rs.)	172	186
5 Average working capital per society (Rs.)	9,16,395	10,14,815
6 Average loan per member	265	284
7 Percentage of borrowing member to total members	56	N.A.
8 Average loan advanced per advancing society (Rs.)	4,31,275	N.A.
9 Average loan advanced per borrowing member (Rs.)	477	N.A.
10 Percentage of overdue to outstanding (%)	30	31

N.A. Not Available.

*Figures are provisional.

4.34 There was a marginal increase in the membership of the societies which reached 25 lakhs by the middle of 1978 (See Table 4.16). Paid up share capital registered an increase of Rs.156 lakhs. Other significant achievements are improvement in deposit mobilisation which rose from Rs. 4,242 to Rs. 4,666 lakhs and increased disbursal of short-term credit by Rs. 523 lakhs. There was only marginal increase in the loans overdue.

TABLE 4.16

Selected Indicators of the Credit Operations of the Agricultural Credit Societies

Details	(Amount in Rs. lakhs)	
	As on 30-6-1977	As on 30-6-1978*
(1)	(2)	(3)
1 Number of societies	1646	1635
2 Number of Members (Lakhs)	24.70	25.00
3 Paid up share capital	1699.88	1855.79
4 Statutory reserves	213.43	234.00
5 Other reserves	580.49	683.00
6 Deposits	4241.59	4665.69
7 Other borrowings	4703.28	5173.00
8 Working capital	15083.87	16592.24
9 Loans advanced during the year		
(a) Short term	5225.52	5748.07
(b) Medium term	1290.96	1376.05
10 Loans outstanding at the end of the year	7599.20	7642.26
11 Loans overdue	2301.75	2381.75
12 Number of societies that worked at profit	912	N.A.
13 Net profit for the year	203.95	N.A.
14 Number of societies that worked at loss	733	N.A.
15 Loss sustained	222.07	N.A.
16 Number of societies without profit/loss	1	N.A.

* Figures are provisional

Long Term Credit

4.35 After a phenomenal increase in its activity during 1976-77, the Kerala Co-operative Central Land Mortgage Bank which is the principal agency for making available long term co-operative credit in the State had been concentrating more on consolidation rather than expansion during 1977-78. During the year the bank had succeeded in making available long term credit amounting to Rs. 828 lakhs (against Rs. 800 lakhs in 1976-77), Rs. 656 lakhs under the ordinary lending programme and Rs.178 lakhs under special (ARDC) lending programme. The disbursement under the special programmes had increased by 70 per cent from Rs. 102 lakhs to Rs. 172 lakhs. It is estimated that nearly 60 per cent of the loan disbursement has been to small farmers.

4.36 The major thrust of the ARDC schemes had been on the energisation of pumpsets. The bank extended credit facilities to the Kerala State Electricity Board under the ARDC project. In order to facilitate easy implementation of credit projects the Kerala State Electricity Board was admitted as a member of the Central Bank through an amendment of the relevant

Act. There are, at present, 57 on-going ARDC projects involving a financial investment of Rs. 25,83 lakhs. The Bank has so far completed 9 ARDC schemes involving a total financial investment of Rs. 1,88.24 lakhs. In addition, the bank is extending long term assistance to the Special Agricultural Development Unit (SADU) of the Kerala Agricultural Development Project implemented by the State Government with assistance from the World Bank. Out of the 105 SADU package units, the bank has commenced lending in 66 units. The Bank's share of the loaning programme is Rs. 11.8 lakhs.

4.37 There has been remarkable progress in the recovery of loans during 1977-78 which enabled 29 out of 30 primary banks to undertake unrestricted lending programme in accordance with the norms prescribed by the Reserve Bank of India. By the end of the co-operative year 1977-78, only one bank had overdues above 25 per cent. Construction of new wells and conservation of soil through levelling and bunding accounted for 45 per cent of all activity for which long term credit has been extended (See Table 4.17). There has been a marginal decline in the ordinary loaning programme from Rs. 6,91 lakhs in 1976-77 to 6,56 lakhs in 1977-78.

TABLE 4.17

Ordinary Loaning Programme of the Kerala Co-operative Central Land Mortgage Bank

Purpose	(Rs. in lakhs)	
	1976-77	1977-78
(1)	(2)	(3)
1 New wells	136.16	100.72
2 New tanks	43.55	29.62
3 Pumpsets	38.50	27.61
4 Agricultural machinery	22.44	8.36
5 Repairs to wells	36.17	32.80
6 Repairs to tanks	10.41	..
7 Persian wheels	0.05	0.25
8 Field channels	6.00	7.01
9 Cattle shed and farm houses	67.26	85.12
10 Fencing	47.35	49.75
11 Levelling and bunding	183.99	198.03
12 Terracing	23.25	17.65
13 Drainage channels	1.62	1.05
14 Plantations	55.64	85.19
15 Others	18.57	11.68
Total	690.96	655.74

*Agricultural Research and Education
Kerala Agricultural University*

4.38 The commencement of two new departments viz. Soil Science and Fisheries, the release of a tall improved rice variety 'Suvarna Moden' (PTB-42) and a Cowpea variety 'Kanakamani' (PTB-1), introduction of a fodder Cowpea 'Karnataka local', hormone treatment to bring heifers that fail to conceive into lactation,

development of a technique for artificial insemination in goats, the establishment of a communication centre and a central training institute, adoption of twelve villages for development work were some of the highlights of the activities of the Kerala Agricultural University which is assigned the primary responsibility for teaching, research and extension education in agriculture in the State.

4.39 Admissions to the undergraduate and post-graduate level in the faculties of Agriculture, Horticulture and Animal Sciences remained more or less at the previous year's level. The details of intake to the various courses under this University are furnished in Table 4.18. The undergraduate programme has been strengthened by plot cultivation of seasonal crops in the second, third and fourth years, maintenance of perennial/crops for 3½ years and participation in earn-while-you-learn programme. The duration of the BVSc programme has been increased from four to five years providing for the internship programme in farms and clinics for six months in the final year of study. In order to improve the teaching and research competence of the staff of the University 36 teachers have been deputed for Doctoral degree programme.

TABLE 4.18

Teaching Programme of the Kerala Agricultural University

Programme	1976-77	1977-78
(1)	(2)	(3)
<i>Graduate Programme</i>		
Admission to B.Sc. (Agriculture)	Nos. 112	100
Admission to B.Sc. (Hort.)	30	40
Admission to B.V.Sc. & A.H.	53	54
Successful Completion of B.Sc. (Ag.)	44	77
Successful Completion of B.Sc. (Hort.)	19	20
Successful Completion of B.V.Sc.	31	20
<i>Post Graduate Programme</i>		
Admission to M.Sc. (Agri.)	42	37
Admission to M.V.Sc.	19	24
Admission to Ph. D. (Ag. Faculty)	7	7
Admission to Ph.D. (Vet. Faculty)	..	2
Successful Completion of M.Sc. (Agri.)	17	17
Successful Completion of M.V.Sc.	15	18
Successful Completion of Ph.D.	..	2
Admission to M.Sc. (Hort.)	12	12
Successful Completion of M.Sc. (Hort.)	..	..
<i>Other Special Courses</i>		
Admission to Diploma course in Agri. Science	..	39
Successful Completion of Diploma Course	..	39

4.40 The Kerala Agricultural University has succeeded in evolving at the Pattambi Rice Research Station a tall improved rice variety 'Suvarna Moden' (PTB-42) suitable for rainfed uplands and releasing it for large scale field trials. It possessed most important traits of upland rice such as drought tolerance, high initial vigour, good canopy development, and non-lodging plant architecture. This variety has also been found promising under the dry-sown and semi-dry system of cultivation in wet lands. A dual purpose Cowpea variety, 'Kanaka-mani' (PTB-1) was released from the Rice Research Station, Pattambi. It has a dwarf plant type long pods and maroon coloured seeds. Research in water management has succeeded in developing an economic irrigation schedule for sesamum in rice fallow. The phasic stress irrigation schedule developed for transplanting rice enables saving of nearly 25 per cent irrigation water with practically no reduction in yield. With the introduction of a variety 'Karnataka local' as a fodder cowpea it has been possible to develop a highly profitable rotation viz. rice-rice-fodder Cowpea in wet lands. The development of a new method of storing tapioca tubers without deterioration in quality for periods up to one month using tapioca leaves has been a significant contribution in preserving tapioca. Preliminary trials have indicated the possibility of jute cultivation for fibre-cum-seed production in Kuttanad during summer. A centrifugal jet pump combination has been developed using a low cost jet pump attachment to increase the discharge capacity of conventional centrifuge pumps. This has application in low power pumping such as rice irrigation and drainage work. An aquatic weed harvester has been developed to collect and remove flood type aquatic weeds such as salvinia (African payal) by utilising the jet pump principle. The University has organised a research programme under the Kerala Agricultural Development Project assisted by the World Bank to improve the productivity of major tree crops—coconut, cashewnut and cocoa and the spice crop pepper—with emphasis on improving the economic status of farmers with small holdings.

4.41 The research in Animal Sciences has found that the incorporation of tapioca leaf meal upto 30 per cent or 0.3 per cent of the body weight could replace 50 per cent of groundnut cake in cattle ration. Treating paddy straw with urea and molasses at 21 and 10 per cent levels respectively could meet the requirements of adult cattle for maintenance with minimal concentrated feeding. The administration of oestrogen and progesterone was shown to induce lactation and subsequently lead to normal heat cycle in cows which are problem breeders. The culture of tiger prawn was found to be promising in the low saline areas in the State.

4.42 The Extension Training Directorate of the University organised a number of training programmes for various categories of people, the most important among them being the inservice training programme for Junior Agricultural Officers, Agricultural Demonstrators, Veterinary Surgeons and Livestock Assistants. During 1977-78, 148 Junior Agricultural Officers in 5 batches, 273 Agricultural Demonstrators in 6 batches, 8 Senior Officers of the Animal Husbandry Department and 142 Livestock Assistants in 2 batches were trained. In addition the University provided training to the officers of the SADU under the Kerala Agricultural Development Project. The Directorate developed the fresh package of practices for adoption in the State. The University has also undertaken the village adoption programme in 12 villages by its various constituents. Under the national demonstration programmes 25 demonstrations were laid out.

Central Tuber Crops Research Institute

4.43 One of the major achievements of the Institute during 1977-78 has been the identification of two early maturing varieties namely C-567 and C-856. In both the varieties 88 per cent of the bulking of tubers is completed at 6½ months. The quality of the tubers of these 2 varieties is found to be excellent even at 6½ months' growth. Another important finding of the Institute has been that the branching habits of different varieties of Cassava (tapioca) affect the tuber yield significantly. Non branching and semibranching are desirable characters for maximum yield potential. Training in tuber crops production technology has been offered to 185 farmers including 15 tribal farmers and 150 Junior Agricultural Officers of the Department of Agriculture, Kerala State. An international workshop on 'Inter-cropping with Cassava', was held at Trivandrum during 1977, sponsored by the ICAR and International Development Research Centre, Canada.

Plantations

4.44 Tea, coffee, rubber, and cardamom which constitute the main plantation crops of Kerala account for 20 per cent of the State income originating from agriculture. These four crops together occupy 3.56 lakh hectares, i.e. about 12 per cent of the State's cropped area. Rubber accounts for 60 per cent of the plantation area in the State. The shares of the other crops are estimated at 15 per cent in respect of cardamom as well as coffee and 10 per cent in respect of tea. The plantation labour employed in rubber, coffee and tea together is nearly 3 lakh workers.

Tea

4.45 The world output of tea in 1977-78 reached a record level of 1,736 million kg. registering 7.6

per cent increase over the previous year. India continued to maintain her prominent position as the largest producer, exporter and consumer of tea. Between 1975 and 1977 the area under tea plantation in India recorded only a very small increase from 3.63 lakh hectares to 3.66 lakh hectares, the increase over the two years being 0.08 per cent. The production of tea during the years moved up from 4.87 lakh tonnes to 5.59 lakh tonnes (14.8 per cent increase). The forecast estimate for 1977-78 stood at 5.63 lakh tonnes, indicating an upward trend in the aggregate production of tea at the national level. The area and production of tea in different States of India are furnished in Appendix 4.8.

4.46 Tea accounts for 1.2 per cent of the total cropped area in the State. It provides direct employment to over a lakh of workers and contributes Rs. 22.5 crores by way of taxes and duties to the State/Central exchequer.

4.47 The tea production in the State recorded a steady rise from 43,215 tonnes in 1975 to 51,983 tonnes in 1977 and 54,397 tonnes in 1978. The share of Kerala in the production of tea at the national level is about 10 per cent. Kerala witnessed comparatively a higher rate of growth of tea despite the fact that the area has declined considerably over the period. Obviously the increase in production could be attributed to a rise in yield per hectare. Of the total area under tea in the State, Idukki district accounts for 66 per cent. The other districts in the order of importance are Kozhikode (10.7 per cent), Kottayam (6.5 per cent), Quilon (6.1 per cent), Cannanore (4.2 per cent) and Trivandrum (2.9 per cent).

4.48 In respect of output, the share of Idukki was as much as 73 per cent in 1977. Kozhikode accounted for 14 per cent and Cannanore 4 per cent. The rest was shared by the other districts.

4.49 Small holdings upto 5 hectares numbering 3,858 (94 per cent of the total units) account for only 5 per cent of the total area under tea in the State. Large estates above 200 hectares comprise 73.2 per cent of the area. Distribution of tea estates by the size of holdings is presented in Table 4.19.

TABLE 4.19
Distribution of Tea Estates by size in Kerala during 1976-77

Size Group	No.	Percentage	Area Hectares	Percentage
Up to 5 Hectares	3,858	94.0	1,826	5.0
5 - 50 "	119	2.9	1,711	4.7
50 - 100 "	21	0.5	1,555	4.3
100-200 "	32	0.8	4,648	12.8
200-400 "	56	1.3	16,079	44.3
Above 400 "	19	0.5	10,508	28.9
Total Kerala	4,105	100.0	36,327	100.0
Total All India	11,781	..	3,60,093	..

4 758 MC.

4.50 Among the South Indian States, Kerala has the lowest yield per hectare of tea. In 1975 it stood at 1,189 kg/ha compared to 1704 kg/ha. in respect of Tamil Nadu. Even though the yield/hectare in Kerala registered an increase of 20.7 per cent by 1977 it still remained much below the level of Tamil Nadu and Karnataka. The data are presented in Table 4.20.

TABLE 4.20
Average yield of tea in different South Indian States during 1975 and 1977

State	Yield per hectare (in Kg.)		
	1975	1976	1977
Kerala	1,189	1,319	1,436
Tamil Nadu	1,704	1,658	2,020
Karnataka	1,630	1,950	1,940

4.51 The Tea Board has evolved a comprehensive Scheme costing Rs. 100 crores to bring 40,000 hectares in Idukki district under tea plantation. Besides giving financial and technical assistances for raising nurseries, the Board would also supply seedlings and pesticides, needed for the purpose. The Board has also plans to set up a number of tea factories under co-operative sector with the participation of State Government.

Coffee

4.52 Coffee plantation registered an all-time high production of 1.23 lakh tonnes at the national level during 1977-78. The production in the previous year stood at 1.02 lakh tonnes, the increase in the year being 20.5 per cent.

4.53 The total area under coffee in the country was estimated to be 1.88 lakh hectares in 1976-77 as against 1.71 lakh hectares in 1975-76. The increase over the year was 10 per cent. State-wise area and production statistics of coffee during 1975-76 and 1976-77 are given in Appendix 4.9.

4.54 The species-wise estimates of area and production of coffee in Kerala are given in Appendix 4.10. The important species of coffee plantations in Kerala are Arabica and Robusta. Arabica accounted for 2,926 hectares (5.5 per cent) and Robusta 49,718 hectares (94.5 per cent) during 1976-77. Arabica contributed to a production of 1,415 tonnes and Robusta 13,540 tonnes, the former accounts for 9.5 per cent and the latter 90.5 per cent of the aggregate production in the State. Of the total all India area and production of the crop the share of Kerala in 1976-77 in terms of area was 52,644 hectares (27.9 per cent) and that of production was 14,955 tonnes (14.6 per cent). The production in 1977-78 moved up to 27,645 tonnes, the increase over the year being 84.9 per cent.

Kozhikode has the maximum area under coffee in the State (52.5 per cent). This is followed by Cannanore (32.6 per cent), Idukki (8.6 per cent), Palghat (3.1 per cent) and Kottayam (2.4 per cent).

4.55 The coffee plantations in Kerala numbered 47,760 units, consisting of 18,123 registered and 29,637 unregistered estates. Distribution of the registered plantations by size of holdings is presented in Table 4.21.

TABLE 4.21
Registered Coffee Plantations by Size of Holdings (1976-77)

Size Group	(Area in hectares)							
	Kerala				India			
	No. of Units	Percentage	Area	Percentage	No. of Units	Percentage	Area	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Below 2 Ha.	15,578	86.0	15,796	49.8	36,354	73.9	29,864	19.7
2-4 ,,	1,799	9.9	4,905	15.5	6,688	13.6	19,601	12.9
4-10 ,,	535	3.0	3,676	11.6	4,253	8.6	26,641	17.3
10-20 ,,	114	0.6	1,630	5.1	964	2.0	14,085	9.3
20-40 ,,	41	0.2	1,179	3.7	412	0.8	11,553	7.6
Above 40 Ha.	56	0.3	4,522	14.3	556	1.1	50,141	33.0
Total	18,123	100.0	31,708	100.0	49,227	100.0	151,885	100.0
Number of Unregistered Units	29,637	..	20,936	..	42,019	..	36,362	..
Grand Total	47,760	..	52,644	..	91,246	..	188,447	..

4.56 Of the registered units small holdings below 4 hectares comprised 17,377 (95.9 per cent) covering 20,701 hectares (65.3 per cent). Holdings above 40 hectares constituted 0.3 per cent and accounted for 4522 hectares.

4.57 The average yield per hectare of coffee in Kerala in 1976-77 was 284 kg/hectare as against 338 kg hectare in the previous year. The corresponding figures of all India were 542 kg. per hectare in 1976-77 and 489 kg per hectare in 1975-76. The comparatively low yield of coffee in the State is attributed to the very small size of holdings.

4.58 Sale price of coffee realised from the pool auctions both for internal and export markets during 1976-77 and 1977-78 are presented in Table 4.22.

TABLE 4.22
Auction Sale Price of Coffee

Grade	Price in Rs. per 50 Kg.			
	Internal Sales (Inclusive of excise duty)		Export Sales (Exclusive of all Taxes and Duties)	
	1976-77	1977-78	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)
Plantation	530.75	505.50	1322.50	1352.50
Arabica Cherry	503.25	458.00	1294.50	1179.75
Robusta Cherry	489.50	444.75	1029.00	1183.00

Rubber

4.59 For the first time during the last ten years the production of natural rubber in India witnessed a marginal decline in 1977-78 over the previous year. From 149,632 tonnes in 1976-77 the aggregate production of natural rubber decreased to 144,967 tonnes in 1977-78. The decrease over the year was 3.1 per cent. However, the area under the crop went up from 2.31 lakh hectares to 2.33 lakh hectares during the year. The area under improved varieties was 1.88 lakh hectares (77.3 per cent) in 1977-78.

4.60 In 1976-77 there were 1.37 lakh rubber holdings in the country. Holdings below 2 hectares constituted 86.5 per cent and accounted for 36 per cent of the total area. Holdings below 4 hectares comprised as much as 95 per cent and shared 50 per cent of the total area.

4.61 Kerala accounts for 91 per cent of the area under rubber plantations. In 1977-78 the area under the crop in the State was 2.12 lakh hectares as against 2.10 lakh hectares in the previous year. The State-wise distribution of rubber holdings and estates is given in Table 4.23.

4.62 In Kerala the rubber holdings (below 20 hectares) comprised of 97.4 per cent of the total number of units and the holdings accounted for 96.6 per cent of the total area. The average size of rubber holdings in the State stood at 1.17 hectares in 1977-78 as against 1.13 hectares in 1976-77. The number of holdings has been showing a tendency to increase

TABLE 4.23
State-wise Distribution of Rubber (1977-78)

State	Total area (in ha.)	Holdings (20 ha & below)		Estates (Above 20 ha.)	
		No. of units	Area (in ha.)	No. of units	Area (in ha.)
(1)	(2)	(3)	(4)	(5)	(6)
Kerala	2,12,271	1,36,568	1,59,492	510	52,779
Tamil Nadu	11,646	3,347	5,042	43	6,694
Karnataka	7,888	261	571	23	7,316
Andaman and Nicobar Islands	988	..	..	4	988
Andhra Pradesh	31	2	1	1	30
Goa	27	7	27	..	..
Tripura	506	7	36	1	470
Maharashtra	4	1	4	..	..
Total	2,33,359	1,40,191	1,65,173	584	68,188

since 1970-71, while the number of estates declined. Between 1970-71 and 1977-78 the number of holdings went up steadily from 1.08 lakhs to 1.37 lakhs and the area from 1.32 lakh hectares to 1.59 lakh hectares. On the other hand, the estates (above 20 hectares) declined in number from 585 to 510 and in area from 55813 to 52779 hectares during the period. The number and area of holdings and estates in Kerala are given in Table 4.24.

TABLE 4.24
Number and Area of Holdings and Estates in Kerala

Year	Holdings No	Area (in ha.)	Estates No.	Area (in ha.)
(1)	(2)	(3)	(4)	(5)
1970-71	1,08,332	131,949	585	55,813
1973-74	1,21,239	146,371	560	53,233
1974-75	1,24,540	150,132	543	52,186
1975-76	1,28,050	153,380	528	52,003
1976-77	1,33,031	157,546	521	52,177
1977-78	1,36,568	159,492	510	52,779

4.63 The State's production of natural rubber in 1977-78 was estimated at 1.36 lakh tonnes compared to 1.40 lakh tonnes in 1976-77. The fall in production was mainly due to the drought in March 1978.

4.64 The average yield of rubber in Kerala in 1977-78 stood at 655 kg. per hectare of plantations. In the previous year it was 667 kg. per hectare. For all India, the yield rate of rubber in 1977-78 was 630 kg. per hectare compared to 648 kg. per hectare in 1976-77.

4.65 The consumption of rubber has increased steadily from 1,52,900 tonnes in 1976-77 to 2,01,400 tonnes in 1977-78 (31.7 per cent increase). Of this, natural rubber constituted 1,45,000 tonnes, (72.0 per cent) and synthetic rubber 34,800 tonnes (17.3 per cent) and reclaimed rubber 21,700 tonnes (10.7

per cent). In Kerala the consumption of natural rubber has increased from 6,739 tonnes in 1970-71 to 15,732 tonnes in 1977-78 registering an increase of 133.4 per cent. Production, import, export and consumption of rubber in India are given in Appendix 4.11

4.66 The average price which was Rs. 744 per quintal in 1975-76 declined to Rs. 596 in 1976-77. However in 1977-78 the price of rubber showed an increase to Rs. 632 per quintal. The average market price of natural rubber for the years 1970-71 to 1977-78 at Kottayam market is given in Table 4.25

TABLE 4.25
Average Market Price of Natural Rubber of R.M.A.
3,4,5, at Kottayam

Year	Price per Quintal Rs.
(1)	(2)
1970-71	463.80
1973-74	515.39
1974-75	849.24
1975-76	748.62
1976-77	595.86
1977-78	632.11

4.67 A total quantity of 11,078 tonnes of rubber was exported from India during 1977-78 as against 12,296 tonnes during the previous year.

4.68 The Government of India fixes the minimum prices for various grades of rubber and revises them from time to time. The minimum prices which were in force at the end of November 1978 ranged between Rs. 556.42 and Rs. 655.00 per quintal for different grades of rubber.

Cardamom

4.69 Cardamom is one of the important plantation crops of Kerala. The State accounts for sixty

per cent of the area and three fourths of the output of the crop at the national level. In 1977-78, the production of cardamom registered a phenomenal growth. While the area remained steady at 91,476 hectares in the country, production of cardamom was estimated to have gone upto 3,900 tonnes in 1977-78 from 2,400 tonnes in the previous year. The increase over the year was 62.5 per cent. The record production in earlier years was 3,785 tonnes in 1971-72. The exports comprised 2,763 tonnes valued at Rs. 48.44 crores in 1977-78 as against 893 tonnes valued at Rs. 14.03 crores in 1976-77. The unit export price for cardamom

stood at Rs. 175.28 per kg. during the year compared to Rs. 157.17 per kg. prevailed in the previous year.

4.70 Out of the aggregate area of cardamom plantations in the country, Kerala accounted for 55,188 hectares (60 per cent), Karnataka 28,223 hectares (31 per cent) and Tamil Nadu 8,065 hectares (9 per cent). A small portion of the area remained unregistered. For Kerala, this stood at 6 per cent as against 9 per cent for the country as a whole. The distribution of registered cardamom plantations in Kerala by size of holdings is given in Table 4.26.

TABLE 4.26
Distribution of Registered Cardamom Estates by Size of Holdings (1977-78)

Size of Holdings	Kerala				India			
	No. of Estates	%	Area (Ha.)	%	No. of Estates	%	Area (Ha.)	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Below 2 Ha.	11,761	66	11,448	22	18,795	68	17,144	21
2-4 "	3,171	18	8,861	17	4,845	17	13,379	16
4-8 "	1,915	11	10,458	20	2,658	10	14,371	17
8-20 "	744	4	8,492	16	1,101	4	12,811	15
20-40 "	147	1	3,769	7	249	1	6,369	8
40 & above	96	*	8,980	18	184	*	19,086	23
Total	17,834	100	52,008	100	27,832	100	83,160	100

*Negligible

4.71 Of the registered planted area under cardamom in Kerala, small holdings (less than 2 hectares) comprised 66 per cent and covered 22 per cent of the area. Holdings above 8 hectares, constituting 5 per cent, accounted for 41 per cent of the area.

4.72 The production of cardamom in the State in 1977-78 was estimated at 2,900 tonnes as against 1,480

tonnes in the previous year. The increase in production was almost cent per cent. The peak production recorded earlier was 2,720 tonnes in 1971-72. The State's share of the all India crop moved up from 62 per cent in 1966-67 to 74 per cent in 1977-78. State wise production of cardamom for selected years is given in Table 4.27.

TABLE 4.27
State-wise Production of Cardamom in India

State	1971-72		1975-76		1976-77		1977-78	
	Tonnes	%	Tonnes	%	Tonnes	%	Tonnes	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Kerala	2,720	72	2,050	68	1,480	62	2,900	74
Karnataka	620	16	650	22	700	29	700	18
Tamil Nadu	445	12	300	10	220	9	300	8
India	3,785	100	3,000	100	2,400	100	3,900	100

4.73 The average yield of cardamom stood at 53 kg. per hectare in Kerala as against 43 kg. per hectare at the national level in 1977-78. The corresponding figures during 1976-77 were 27 kg. per hectare and 26 kg. per hectare respectively. The improved yield during 1977-78 was mainly the result of favourable climatic conditions and development programmes implemented in the past.

Land Reforms

4.74 Kerala has advanced considerably in the sphere of land reforms. The tenancy system has no more legal sanctity in Kerala. All hutment dwellers, (Kudikidappukar) have been vested with legal titles for the purchase of their 'Kudikidappu' with the lands appurtenant thereto. The implementation of the ceiling provision of the KLR Act and the distributive measures envisaged in other land legislations have further helped thousands of landless agricultural labourers to become holders of land. Among them, the Scheduled Caste and Scheduled Tribe beneficiaries form a substantial number. The assignees of surplus land and the Kudikidappukar are being given the benefit of supporting programmes to develop the land and increase employment opportunities and income. The implementation of the various land reform measures has to a great extent helped the State to achieve the twin objectives of restructuring the land ownership pattern for promoting agricultural production and distributive justice to the rural landless.

4.75 While on 1-1-1970, all cultivating tenants by virtue of the KLR Act became virtual proprietors, there remained a number of issues like the payment of compensation to landlords and intermediaries, the collection of purchase price from tenants and the issue of certificates of purchase to them. Till the end of November 1978, a total number of 35.50 lakh cases were filed for landlords' rights on cultivating tenants as against 34.37 lakhs till the end of December 1977. The disposals by November 1978 numbered 35.23 lakh cases (99 per cent) the allowed cases being 23.88 lakhs. The figures for December 1977 were 33.02 lakh cases (96 per cent) disposed of and 22.64 lakh cases allowed. The certificates of purchase issued till the end of November 1978 numbered 23.18 lakhs. The number of cases pending settlement at the end of November 1978 stood at 26,479.

4.76 With regard to the 'Kudikidappukar' the cases filed for the purchase of Kudikidappu rights constituted 4.21 lakhs till the end of November 1978, as against 4.13 lakhs in December 1977. Decisions have already been taken in respect of 4.20 lakh applications (99.8 per cent). Till December 1977, 4.11 lakh cases forming 99.5 per cent of the total applications received till then were disposed of. The allowed cases have gone up from 2.55 lakhs to 2.60 lakhs during the period

December 1977 to November 1978 and certificates of purchase were issued to all the 2.60 lakh cases during this period.

4.77 Compared to the achievements recorded in respect of the tenancy and Kudikidappu reforms, the progress gained in the implementation of the ceiling provision of the KLR Act has been less spectacular. The reasons for this were mainly legal bottlenecks and other procedural delays. An aggregate of 61,851 ceiling returns were filed till the end of December 1978. Out of these 56,592 cases (92 per cent) were processed and disposed of. The number of cases additionally registered during 1978 was 3009 and the number disposed of was 6049. The ceiling cases involving surrender of surplus lands comprised 10,508 in December 1978 and the extent of land offered for surrender voluntarily was 1.06 lakh acres. However, the land ordered for surrender was 1.40 lakh acres till December 1978. 18,000 acres more than that at the end of the previous year. But on orders from the High Court, 25,883 acres were exempted from the purview of Government orders, reducing the net area ordered for surrender to 1.14 lakh acres.

4.78 The surplus land taken over under the KLR Act during 1978 moved up from 64,784 acres to 71,188 acres. However, on orders of the High Court an aggregate 2,204 acres had to be reconveyed restricting the extent of land taken over to 68,984 acres. Of the remaining land ordered to be taken over (45,487 acres), the actual area available for assumption is only 2,600 acres, 28,581 acres being involved, in cases pending with the court and 14,305 acres falling within the purview of gift, dispute, etc.

4.79 The total extent of surplus land distributed till the end of December 1978 reached 44,998 acres and the aggregate beneficiaries numbered 69,397 families. The beneficiaries belonging to Scheduled Castes (26,085 families) and Scheduled Tribes (4,751 families) together accounted for 19,029 acres (42 per cent). Of the surplus land assumed, the undistributed area constituted 23,986 acres. An area of 3,053 acres was covered by stay orders, 5301 acres by gifts, disputes, etc. and 13,753 acres were earmarked for public purposes. The extent of surplus land readily available for distribution was only 1,879 acres.

4.80 Out of the 1.40 lakh acres of surplus land identified to be taken over for redistribution, about 58,000 acres are involved in legal hurdles and 20,000 acres gifts, disputes, etc. The rest alone is available for re-distribution and/or for public purposes.

4.81 Besides the KLR Act, two other important enactments viz., the Kannan Devan Hills (Resumption of Lands) Act, 1971 and the Kerala Private Forests (Vesting and Assignment) Act, 1971 have also vested

in the Government extensive areas of land. Cultivable lands in the KDHP village and in the nationalised private forests are being assigned to the landless agriculturists including Scheduled Castes and Scheduled Tribes.

4.82 The extent of Government poramboke lands available for assignment till the end of November 1978 was estimated at 4.34 lakh acres. Out of these lands, as much as 3.91 lakh acres were distributed by the end of November 1978 compared to 3.66 lakh acres by November 1977. The land assigned during the 12 month period was 25,000 acres. A total number of 3.91 lakh families was benefited by this. Among the beneficiaries scheduled caste and scheduled tribe families numbered 78,546 (21 per cent). The extent of land assigned to the scheduled caste and scheduled tribe families was 55,667 acres (14 per cent). Also 3635 ex-service men were given poramboke land covering a total extent of 5,194 acres. The balance available for distribution at the end of November 1978 is estimated at 43,100 acres (10 per cent). Most of these lands are located in the districts of Idukki (22,930 acres), Cannanore (14,080 acres) Trichur (2,740 acres) and Quilon (1,790 acres).

4.83 An important aspect of the implementation of land reform measures is the preparation of record of rights. In Kerala where a multiplicity of tenures existed, many of which were even of an oral nature preparation of record of rights assumes special significance. Updating of land records is also equally important as it is essential for availing institutional finance for agricultural development. In 1962, 5781 sq. km. were surveyed and mapping completed in respect of 3,208 sq. km. The residuary work extending over 32,510 sq. km. has been taken up from 1966-67 onwards. Till the end of March 1978, resurvey has been completed in respect of 9,999 sq. km.

4.84 In order to help the beneficiaries of surplus lands to make full utilisation of the lands assigned to them, suitable land development programmes are drawn up and implemented as a part of the land reform measures. The beneficiaries are provided with credit, besides technical and other infrastructure facilities. Schemes are also being implemented for the rehabilitation of Kudikidappukar. Apart from the supporting programmes implemented by the State, the Government of India also provide financial assistance to the beneficiaries of surplus lands in non-SFDA districts.

4.85 The Kerala Agricultural Workers Act, 1974, envisaging provisions of security of employment, fixation of working hours, payment of reasonable rates of wages and fair settlement of disputes of the agricultural workers, came into force from 2-10-1975. Till the end of August 1978, 5.97 lakh agricultural workers were registered under the Act. Between October

1975 and August 1978, 9,366 agricultural disputes were registered out of which 8,887 have been disposed of. The disputes settled through conciliation numbered 4,315.

4.86 The aggregate rent payable by the erstwhile tenants has been estimated at Rs. 119 crores. It is likely that part of this would go into capital formation in agriculture. Data thrown up by the National Sample Survey reveal the impact of land legislations on the size of operational holdings. Between 1959-60 and 1970-71, the large holdings disintegrated considerably. While the number of large holdings declined from 3.8 per cent to 1.2 per cent, the area covered by these large holdings dwindled from 42.5 per cent to 13.1 per cent. This phenomenon has resulted in considerable increases in the areas covered by smaller holdings. The percentage area under medium holdings increased from 15.7 to 20.1 and that under small holdings from 30.5 to 47.5. The share of the marginal holdings increased from 11.3 per cent to 17.3 per cent. Undoubtedly, this structural change in the pattern of holding could be attributed to land reform measures enacted in the State from time to time.

Livestock Development

4.87 Livestock rearing, especially dairying, is considered to be a major instrument of economic uplift of the rural poor as it enables them to augment their income and employment opportunities. Various measures adopted in this regard in the past have contributed considerably to a qualitative improvement of the cattle stock. According to the 1977 Livestock Census, out of the total breeding cows of 13.65 lakhs, the improved stock comprised 6.85 lakhs (50.2 per cent). The cow in milk constituted 51.6 per cent in 1977 compared to 47.3 per cent in 1972. The milk production in the State is estimated to have gone up to 7 lakh tonnes by 1977, yielding a per capita availability of 79 grams per day. These estimates are based on a sample survey by the Department of Animal Husbandry and can be relied upon as an improvement on the existing milk statistics in the State. The production of eggs was estimated at 1050 million in 1977-78.

4.88 The provisional estimates of the Livestock Census show that the livestock population in the State in 1977 has increased to 53.19 lakhs from 49.36 lakhs in 1972. The poultry population of the State has also recorded an increase of over 12 lakhs from 122 lakhs. The percentage increase in the livestock population was 7.8 and poultry population 10.6 over the period 1972-77. The bovine population has registered a marginal increase from 33.28 lakhs in 1972 to 34.00 lakhs in 1979, despite the fact that the buffalo population in the State declined from 4.72 lakhs to 4.34 lakhs (4 per cent) during the period. The increase in the total bovine population was mainly due to the

increase in the stock of cattle which went up from 28.56 lakhs in 1972 to 30.05 lakhs in 1977.

4.89 In the population of cattle, the stock of males over 3 years registered a steady decline from 5.20 lakhs in 1966 to 3.92 lakhs in 1972 and to 3.71 lakhs in 1977. The decline in the male stock between the years 1966 and 1977 was 29 per cent and that between 1972 and 1977 was 6 per cent. On the other hand, the number of breeding cows over 3 years increased from 12.87 lakhs to 13.65 lakhs during 1972-77, registering an increase of 6 per cent. The improved stock of breeding cows numbered 6.85 lakhs (50.2 per cent) in 1977. The cows in milk increased from 6.06 lakhs to 7.05 lakhs, the rise over the years being 16.3 per cent. Among the cows in milk, cross bred numbered 3.71 lakhs (52.6 per cent). Of the total breeding stock of cows over 3 years 52 per cent were in milk during 1977 compared to 47 per cent in 1972 and 40 per cent in 1966 and 1961. The increasing proportion of cows in milk is a direct indication of the improvement in the stock with a longer lactation period. The Livestock Census data (provisional figures) 1977 are given in Appendix 4.12

4.90 The number of goats and pigs went up considerably from 14.68 lakhs to 16.83 lakhs and from 1.29 lakhs to 1.72 lakhs respectively during the period 1972-77. The former registered an increase of 14.6 per cent and the latter 33.3 per cent. According to the provisional estimates of the 1977 Livestock Census every 1000 people in the State possess 218 livestock (142 bovines, 68 goats and 7 pigs) and 554 poultry. The cows and buffaloes in milk numbered 33 for every 1000 people.

4.91 In order to improve the stock of dairy cows, cross-breeding programme is being continued by the Departments of Animal Husbandry and Dairy Development and the Kerala Livestock Development and Milk Marketing Board. The State has altogether 1475 artificial insemination units. (663 units under the Animal Husbandry Department and 812 units under the Dairy Development Department). During 1977-78, the Animal Husbandry Department carried out 4.96 lakh artificial inseminations as against 4.77 lakhs in the previous year through Key Village Blocks and Intensive Cattle Development Projects. The K. L. D. & M. M. Board conducted 45,602 artificial inseminations in Idukki district during 1977-78. The calves born as a result of the inseminations in Idukki district numbered 11,424 (25 per cent of the total number of artificial inseminations). In 1977-78, altogether 8 lakh artificial inseminations were conducted through these three agencies.

4.92 The K. L. D. & M. M. Board is directly involved in fodder development activities in the four

southern districts. To produce seeds and other planting materials, intensive multiplication plots are maintained in the Livestock Farms and with the certified growers. In 1977-78, the rooted fodder slips produced in the farms numbered 139 lakhs and a total quantity of 1590 kg. of fodder seed was also produced. The area brought newly under fodder crops in the four southern districts is estimated to be 686 hectares. A Fodder Seed Farm is being established at Chundale (Wynad) with Swiss assistance to produce about 14 tonnes of fodder seed per year which will be sufficient to plant 800 hectares of seed gardens of the certified seed growers.

4.93 The veterinary institutions in the State in April 1978, comprised 408 Veterinary Hospitals/Dispensaries, 104 Veterinary Sub Centres/First Aid Centres, 11 Mobile Veterinary Dispensaries, 1 Floating Mobile Dispensary in Alleppey district to deal with areas accessible only by water and 9 Veterinary Clinical Laboratories to provide preventive veterinary work. In addition to this, a centre for production of veterinary biological products and 2 mobile diagnostic laboratories one each in Idukki and Malappuram districts were also functioning. In 1977-78 nearly 26 lakh cases of diseases of animals and poultry were treated in various veterinary institutions in the State. A number of veterinary operations too were performed during the year. The vaccinations and inoculations conducted on livestock and poultry to check and control diseases were of the order of 48 lakhs. The animals slaughtered for meat purposes numbered over 5 lakhs comprising mainly sheep and goats.

4.94 The programmes for promoting the milk production in the rural areas are being supported by a well organised and effective marketing system to strengthen the market outlets of farm animals and their produce. The milk marketing activity is the major commercial programme of the K. L. D. & M. M. Board. Fresh milk is procured from the producers through the milk societies in Trivandrum, Quilon, Alleppey, Idukki and Trichur districts and after processing, it is sold in Trivandrum, Quilon, Alleppey and Cochin areas. The dairy plant at Palghat which was working under the Dairy Union hitherto was taken over by the K. L. D. & M. M. Board in December 1978. At present altogether 4 dairy plants (Trivandrum, Alleppey, Ernakulam and Palghat) and 13 chilling plants are directly under the control of the K. L. D. & M. M. Board with a total installed capacity of 39,000 litres per day and 28,000 litres per day respectively. The quantity of milk procured and distributed by various dairies of the K. L. D. & M. M. Board during 1976-77 and 1977-78 are given in Table 4.28.

4.95 In order to ensure a remunerative price for the milk procured from the farmers, a two axis pricing is followed by the Board so as to enable the producers to get better price for better quality milk.

TABLE 4.28
Procurement and distribution of milk by KLD & MM
Board

Dairies	Procurement (‘000 litres)		Distribution (‘000 litres)	
	1976-77	1977-78	1976-77	1977-78
Trivandrum	4629	6153	4779	6418
Alleppey	1206	1426	1204	1451
Ernakulam	4031	6721	4135	4582
Total	9860	14300	10118	12451

4.96 The Board is also responsible for supplying semen for the cattle breeding programmes in the State. The facilities developed by the Indo-Swiss project are being utilised for producing frozen semen for cattle breeding. During 1977-78 the Board has produced, more than 6.3 lakh doses of frozen semen in Mattupati, Kulathupuzha and Dhoni sperm stations. About 1.9 lakh litres of liquid Nitrogen required for preserving the semen in the Cattle Breeding Units were also produced and supplied by the Board.

4.97 The Board has also been entrusted with the work of implementing the dairy schemes connected with the Western Ghat Development Programme. This Programme includes schemes such as provision of cattle feed at subsidised rate to the crossbred calves and supplying planting materials of fodder species to the farmers.

4.98 With a view to promoting poultry breeding 4.76 lakh chicks were hatched and distributed through the Departmental Farms during 1977-78. The egg production in the Departmental Farms during the year stood around 22.69 lakhs.

Fisheries

4.99 The aggregate fish production in the State which was on the decline since 1973-74, manifested signs of improvement in 1977-78. It moved up from 3.55 lakh tonnes in 1976-77 to 3.69 lakh tonnes during 1977-78, registering an increase of 4 per cent. However, the level of production in 1977-78 was 21 per cent less than that in 1973-74. The per capita consumption of fish was estimated at 10.9 Kg/annum as against 10.4 Kg/annum in the previous year. Between the years 1975-76 and 1976-77, the contribution of fisheries to State income at current prices is estimated to have gone up from Rs. 73.7 crores to Rs. 88.4 crores registering 20 per cent increase. The phenomenal rise in the regional income from fisheries could be attributed to the inflationary tendencies. Despite the fact that production recorded marginal improvement in the fisheries sector, the export suffered a

drastic fall in earnings from Rs. 90.12 crores in 1976-77 to Rs. 77.45 crores in 1977-78, the range of decrease being 14 per cent. While the outlook for marine fisheries on the whole remained gloomy since 1973-74, mainly due to the failure of the conventional species, the ‘...’ lab to land’ technique developed by the scientists of the Central Marine Fisheries Research Institute in spawning prawns in laboratory conditions has ushered in tremendous possibilities for the development of inland culture fisheries in Kerala. With extensive backwaters and freshwaters, Kerala has bright prospects for developing its inland fisheries.

Marine Fish Production.

4.100 The Marine fish landings in the State in 1977 are estimated at 3.45 lakh tonnes as against 3.31 lakh tonnes in 1976, which represents an increase of 4 per cent over the year. The State’s share of the all India sea fish production was 27 per cent in 1977, slightly more than the previous year’s record of 25 per cent. The change in the declining trend was mainly the result of a 7 per cent fall in production at the national level from 13.53 lakh tonnes to 12.60 lakh tonnes during the year. The data relating to marine landings are furnished in Table 4.29.

TABLE 4.29
Marine Fish Landings

Year	Kerala	India	(‘000 tonnes)
			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

4.101 The principal marine species are oil sardine, mackerel and prawns. Oil sardines accounted for 1,17,000 tonnes (34 per cent of the total landings) in 1977 compared to 1,24,000 tonnes (37 per cent) in 1976. The landings of mackerel remained steady at the 1976 level of 20,000 tonnes. However, the average annual landings of oil sardine and mackerel during 1969-73 stood much higher at 1,51,000 and 47,000 tonnes respectively. Prawns, the most economically important species, comprised 40,000 tonnes (12 per cent) in 1977 compared to 35,000 tonnes in 1976 and 45,000 tonnes during 1969-73. The landing data according to the major species are presented in Table 4.30.

TABLE 4.30

Principal Marine Species

Species	Average for 1969-73		1974		1975		1976		1977	
	'000 tonnes	%	'000 tonnes	%	'000 tonnes	%	'000 tonnes	%	'000 tonnes	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Oil Sardine	150.8	40.3	102.1	24.3	97.2	23.1	123.9	37.4	117.4	34.0
Mackerel	46.8	12.4	10.3	2.4	14.9	3.5	20.0	6.0	20.0	5.8
Prawns	45.3	12.0	60.8	14.5	78.0	18.6	34.5	10.4	30.3	11.7
Others	132.5	35.3	247.1	58.8	230.7	54.8	152.6	46.2	167.3	48.5
Total	375.4	100.0	420.3	100.0	420.8	100.0	331.0	100.0	345.0	100.0

4.102 The outlook for marine fish production during the first half of 1978 remained steady at 1,15,000 tonnes as against 1,14,000 tonnes for the same period in the previous year. While landings of Oil sardine and mackerel exhibit wide fluctuations, no serious efforts have been made in the past to step up the exploitation of these species. On the contrary, the fishing activities mainly concentrated on the exploitation of prawn resources in the inshore region. Prawn fishing in the inshore region according to scientists has reached an optimum level. Hence what emerges from the challenge of the situation for stepping up the aggregate marine fish production in the State is to commence exploitation of the offshore and deep-sea resources, besides augmenting fishing for the traditional species in the inshore region. As the economy of the traditional fishermen depends entirely on conventional species, efforts to intensify exploitation of these species should be made mainly by involving the traditional fishermen.

Inland Fish Production.

4.103 The production of inland fish as estimated by the Department of Fisheries stood at 24,058 tonnes in 1977-78 compared to 23,970 tonnes in 1976-77. The increase over the year was nominal. The species-wise composition of inland fish production is presented in Table 4.31.

TABLE 4.31

Composition of Inland Fish Production

Species	1976-77		1977-78	
	Tonnes	%	Tonnes	%
(1)	(2)	(3)	(4)	(5)
1. Prawns	4929	20.56	5106	21.22
2. Etroplus	2880	12.02	3016	12.54
3. Murrels	2755	11.49	2810	11.68
4. Tilapia	3430	14.31	3590	14.92
5. Catfish	2236	9.33	2320	9.64
6. Jew fish	2000	8.34	1560	6.59
7. Others	5740	23.95	5656	23.51
Total	23,970	100.00	24,058	100.00

4.104 Considering the enormous potential for developing culture fisheries in Kerala, the Central Marine Fisheries Research Institute set up in 1976 at Krishi Vigyan Kendra for mari-culture at Narakkal in Ernakulam district. The objective of the Krishi Vigyan Kendra is to disseminate the technical know-how perfected by the Central Marine Fisheries Research Institute on the culture of marine and brackish water organisms ensuring a ready and regular flow of scientific and technical information from LAB TO LAND.

Exports.

4.105 The sea food export earnings from Kerala in 1977-78 suffered a steep fall from Rs. 90.12 crores in 1976-77 to Rs. 77.45 crores, the margin of decrease being 14.1 per cent. In terms of quantity, the decline was from 31,595 tonnes to 29,819 tonnes (5.6 per cent). At the all India level too, the sea food export trade fared badly during the year. The quantity exported was 65,967 tonnes valued at Rs. 180.95 crores as against 66,750 tonnes valued at Rs. 189.12 crores in the previous year. The percentage decreases had been 1.2 in respect of quantity and 4.3 in respect of value. The drop in the sea food export trade in Kerala during 1977-78 was mainly caused by a fall in the export of frozen prawn products from 28,967 tonnes to 26,931 tonnes (7 per cent fall) as well as a reduction in the export price of prawns. The average export price of frozen prawns in Kerala during 1977-78 was Rs. 26.17 per Kg. as against Rs. 28.98 per Kg. in the previous year. The corresponding figures at the national level were Rs. 31.62 per Kg. in 1977-78 and Rs. 34.02 per Kg. in 1976-77. The low average price for the frozen prawns from Kerala points to the fact that our prawns are comparatively smaller in size than those processed and exported from other parts of the country.

Kerala Fisheries Corporation

4.106 The Kerala Fisheries Corporation, despite the streamlining of its organisational structure, could not bring in any commendable progress in its performance

during 1977-78. The Corporation has a fleet of four large trawlers (two nos. of 72 ft. length and two nos. of 76 ft. length) imported from Mexico. While two of the vessels were added to the fleet only in April 1978 the other two vessels, which operated off the coast of Andhra Pradesh in 1977-78, landed 8 tonnes of fish and a little over 38 tonnes of prawns as against the landings of 72 tonnes of fish and 62 tonnes of prawns in 1976-77. The total value of the landings in 1977-78 amounted to Rs. 16.61 lakhs. The exports of the Corporation comprised 257 tonnes of frozen marine products valued at Rs. 99.59 lakhs. This when compared with the exports of the previous year was low by 214 tonnes (45 per cent) and Rs. 105.76 lakhs (52 per cent). The Corporation extended its activities and commenced distribution of fish in the internal markets during the year. Altogether, 23,516 kg. of fish valued at Rs. 1.30 lakhs was distributed in the domestic markets in consumer packs. The sales transactions of the Nylon Net Factory, Ernakulam comprised 2,041 kg. of synthetic twine and 7,616 kg. of webbings for Rs. 14.95 lakhs. The fish meal products manufactured and sold were 57 tonnes valued at Rs. 91,000.

Refrigeration Facilities

4.107 In 1977-78, there were 254 ice plants/freezing plants in the private sector and 26 plants in the public sector in Kerala. The total ice production capacity was estimated at 2,572 tonnes per day, freezing capacity 670 tonnes per day, fresh fish storage capacity 855 tonnes and frozen fish storage capacity 9,143 tonnes. The share of the public sector comprised 211 tonnes ice production capacity (8 per cent), 59 tonnes freezing capacity (9 per cent), 610 tonnes cold storage capacity (71 per cent) and 1,570 tonnes frozen storage capacity (17 per cent). Even granting that the refrigeration plants have 30-40 per cent excess capacity to meet peak productions, the freezing plants in the State were utilised only to the order of 20 per cent of their capacity in 1977-78. The utilisation of the public sector plants was to a lesser extent.

Fishermen Co-operatives

4.108 The State had in 1977-78 a total number of 720 fishermen cooperatives, compared to 768 in 1976-77. The number of credit societies declined from 132 to 127 and the producer societies (MUCS) from 618 to 575. The number of marketing societies remained steady. The membership of the producer societies comprised 49,000 in 1977-78 as against 55,000 in 1976-77. The total paid up capital of the societies marked a substantial reduction from Rs. 77.59 lakhs to 55.08 lakhs over the year. Out of the producer cooperatives, those engaged in actual fishing in 1977-78 numbered only 158. These societies operated 232 mechanised boats and 187 country craft. A total financial assistance of Rs. 24.38 lakhs by way of grant, term loan

and share capital assistance was given to 23 societies with a view to improving their financial viability and operational efficiency.

Fishermen Population and Fishing Craft

4.109 The provisional estimate of the population of fishermen including their dependents in 1977 is 6.6 lakhs as against 5.5 lakhs in 1972. The fishermen engaged in active fishing operations are reported to be 1.58 lakhs compared to 1.10 lakhs in 1972. The total number of fishing boats is estimated around 2990 mechanised boats and 33,000 country craft. The increase over 1972 is 1.70 per cent in respect of mechanised boats and 7.84 per cent in respect of non mechanised boats. The boats constructed and issued to fishermen in the State sector till the end of March 1978 stood at 1,437.

Kerala Fishermen Welfare Corporation

4.110. As the planned efforts so far had little impact on the socio-economic conditions of the traditional fishermen, who constitute nearly 90 per cent of the total fishermen in the State, Government set up the Kerala Fishermen Welfare Corporation in the beginning of 1978. The Corporation has an authorised share capital of Rs. 5 crores. The programmes envisaged for implementation include construction of houses for all indigent fishermen, supply of fishing craft and gear to groups of fishermen, provision of assistance for marketing of fish and promotion of subsidiary occupations.

Forests

4.111 The area under forests in 1977-78 was estimated at 9,345 sq. km., constituting about 24 per cent of the geographical extent of the State. Compared to the last year, there was a reduction in the area by seven sq. km. The maintenance of forest area in tact is not only important from the economic angle but also equally relevant for ecological reasons. In the past considerable forest area had been lost on account of alternate demands set on forest lands for agriculture, irrigation and power projects, roads and industrial establishments, besides the indiscriminate encroachment by vested interests. The run on forest lands for non-forestry activities now stands very much curbed.

4.112 The contribution of forests to the state income (at current prices) was Rs. 25.73 crores in 1976-77 as against Rs. 33.06 crores in 1975-76. The decrease over the year was 22 per cent. However, compared to 1974-75 it was higher by 3 per cent.

4.113 The extent of forest plantations at the end of March 1977, according to revised estimates, stood at 1.28 lakh hectares. By March 1978, this has increased to 1.32 lakh hectares, registering a rise of 3.1 per cent over the year. The principal species of plantations are as shown in Table 4.33.

TABLE 4.32
Area under Principal Species of Forest Plantations

Species	Area in Hectares		Increase/ Decrease over the years
	As on 31-3-1977	As on 31-3-1978	
(1)	(2)	(3)	(4)
1. Teak	65,470	68,511	3,041
2. Soft Wood	20,414	21,634	1,220
3. Jungle Wood (Hardwood)	1,571	1,592	21
4. Cashew	3,482	3,796	314
5. Rosewood	59	79	20
6. Eucalyptus	31,525	30,598	(927)
7. Mahagony	141	202	61
8. Bamboo	985	965	(20)
9. Wattle	571	652	81
10. Fuel Wood	715	453	(262)
11. Mixed Plantations	1,149	1,290	141
12. Others	1,714	2,015	301
Total	1,27,796	1,31,787	3,991

(Figures in brackets indicate decreases).

4.114 The forest plantations occupied 14 per cent of the area under forests. Teak constituted the most

important species accounting for 52 per cent of the forest plantations. This was followed by eucalyptus (23 per cent) and softwood (16 per cent). All the other species together shared the rest of the area (9 per cent). The decrease in the area under eucalyptus was caused by a wide-spread pest and fungus attack on the eucalyptus plantations.

4.115 The physical out turn of forest produce for 1977-78, as provisionally estimated, witnessed an overall fall compared to the previous year. The production of timber round logs declined from 5.41 lakhs m³ to 5.04 lakh m³, the fall in production over the year being 7 per cent. The out turn of round poles decreased from 14.16 to 11.23 lakhs registering 21 per cent fall and that of firewood from 2.65 lakh tonnes to 2.46 lakh tonnes the decrease being 7 per cent. The output of bamboos and rattans, however, has shown remarkable improvement over the previous year, the former went up from 13.47 lakhs to 17.93 lakhs (an increase of 33 per cent) and the latter from 1.65 lakhs to 2.05 lakhs (24 per cent increase). The principal items of forest produce are given in Table 4.33.

TABLE 4.33
Principal Forest Produce

Item	Unit	1976-77	1977-78	Increase/Decrease over the year	
				Actual	Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1. Timber round logs	'000 m ³	541	504	(37)	(7)
2. Timber round poles	'000 Nos.	1,416	1,123	(293)	(21)
3. Firewood	000 tonnes	265	246	(19)	(7)
4. Reeds	000 tonnes	60	11	(49)	(82)
5. Rattans	000 Nos.	165	205	40	24
6. Bamboos	000 Nos.	1,347	1,793	446	33

(Figures in brackets indicate decreases).

Despite the estimated overall fall in production during 1977-78, the revenue from forests recorded appreciable increase during the year. The gross revenue receipts from sale of timber and other produce as well as receipts from other sources amounted to Rs. 31.86 crores in 1977-78, registering an increase of Rs. 5.51 crores (17 per cent) over the previous year. The sale of timber and other forest produce accounted for Rs. 29.56 crores in 1977-78 as against Rs. 25.09 crores in 1976-77, the increase being Rs. 4.47 crores. The net revenue from all sources aggregated to Rs. 31.78 crores in 1977-78 compared to Rs. 26.18 crores in the previous year (21 per cent increase over the year.)

4.116 The data relating to the sale proceeds of timber and other produce are presented in Table 4.34.

TABLE 4.34
Sale Proceeds of Timber and Other Produce

Item	1976-77	1977-78	Increase/Decrease over the year	
			Actual	Percentage
(1)	(2)	(3)	(4)	(5)
1. Timber	219,581	258,344	38,763	18
2. Firewood & Charcoal	10,264	15,764	5,500	54
3. Livestock	417	333	(84)	(30)
4. Other items	20,624	21,112	488	24
Total	250,886	295,552	44,666	18

(Figures in brackets indicate decreases)

4.117 The emphasis on forestry has undergone a change in recent years—from one of conservation forestry to production forestry. The establishment of Kerala Forest Development Corporation and the Kerala Forest Research Institute is in conformity with this new approach.

4.118 The Kerala Forest Development Corporation set up in 1975, has a paid up capital of Rs. 230 lakhs. The Corporation has so far received Rs. 177 lakhs from the Government of Kerala and Rs. 55 lakhs from the Government of India. Long term loans to the tune of Rs. 4 crores are anticipated from the Agricultural Refinance and Development Corporation and the State

Bank of Travancore. The projects taken up currently by the Corporation are (i) raising of pulpwood, (ii) planting of match wood, (iii) management of existing as well as new cardamom plantations, and (iv) distribution of firewood to the public. Till the end of 1977-78, the Corporation has planted 3,864 hectares of pulp wood and 198 hectares of match wood.

4.119 The Kerala Forest Research Institute at Peechi, during its short span of existence, has undertaken several development oriented forest research projects. The State Government provided a grant of Rs. 32.34 lakhs to the Institute during 1977-78 as against Rs. 11.50 lakhs in the previous year.

CHAPTER 5
IRRIGATION AND POWER

Irrigation

Irrigation has a vital role to play in the overall agricultural development activities of the State. The Second Irrigation Commission has assessed the irrigation potential of the State at 1.6 million hectares (net) or 2.7 million hectares (gross). Till the end of March 1978, the total area brought under irrigation is 3,73,750 hectares (gross), which is only 14 per cent of the gross irrigation potential.

5.2. During 1977-78 it was possible to extend irrigation facilities to 14,674 hectares (net) or 28,930 hectares (gross) as against 17,622 hectares (net) or 36,567 hectares (gross) during the previous year. The total investment during 1977-78 on irrigation works was Rs. 41.07 crores.

Major and Medium Irrigation Projects

5.3 The extent of land irrigable by the major and medium irrigation projects, so far identified, is 5.8 lakh hectares (net) or roughly 14 lakh hectares (gross). The physical achievements under major and medium irrigation projects during 1977-78 was 8,034 hectares (net) or 21,615 hectares (gross) as against the previous year's achievement of 7,550 hectares (net) or 22,892 hectares (gross). The amount invested in the major and medium projects was Rs. 32.14 crores during 1977-78.

With a view to modernising the old and completed projects an amount of Rs. 33.55 lakhs has been spent on extension works during 1977-78. The extension works were carried out in all the completed projects except in Walayar and Mangalam projects.

5.4 Out of a total expenditure of Rs. 31.58 crores on the 13 major and medium on-going projects, a major share of Rs. 6.80 crores was incurred in Kallada Project. The total additional gross ayacut area brought under irrigation by the Pamba (7,170 hectares), Periyar Valley (6,395 hectares), Chitturpuzha (1,972 hectares) and Kuttiyadi (6,078 hectares) during 1977-78 was 21,615 hectares, the total expenditure incurred on these projects being Rs. 15.43 crores.

5.5 The thirteen on-going projects when completed would cost Rs. 494.64 crores based on latest approved estimates. No new project was started during 1977-78. During the year Rs. 935.21 lakhs was invested on partially commissioned projects like Kanhirapuzha, Pazhassi, Muvattupuzha, Chimoni, Attappady, Karapuzha, Meenachil and Idamalayar. An amount of Rs. 23.10 lakhs was spent on Investigation and Research. The details of the physical and financial achievements in respect of major and medium irrigation projects is given in Table 5.1.

TABLE 5.1
Major Irrigation Projects—Achievement during 1977-78

Name of Project	Command area (in ha.)		Physical achieve- ment during 1977-78 (in ha.)		Cumulative total at the end of 1977-78 (in ha.)		Expendi- ture during 1977-78 (Rs. in lakhs)
	Net	Gross	Net	Gross	Net	Gross	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Completed Projects:							
1. Chalakudy	27680	39980	Nil	Nil	..	27258	0.26
2. Peechi	25500	23168	..	..	..	23918	0.32
3. Malampuzha	29463	42090	..	..	..	40208	7.33
4. Neyyar	16042	17952	..	..	..	15966	7.12
5. Pothundy	8792	10930	..	..	..	10046	3.73
6. Gayathri	7651	10930	..	..	..	10114	12.56
7. Walayar	4536	6470	..	..	..	6506	..
8. Vazhani	7668	7190	..	..	..	4226	0.17
9. Mangalam	4816	6880	..	..	..	6603	2.
10. Cheerakuzhy	2268	2828	..	..	..	1746	0.08
Total—A	134416	167758	..	..	..	148296	32.55

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
B. On-going Projects:							679.85
1. Kallada	88087	105200	..	..	..	..	431.91
2. Pamba	17806	41683	2390	7170	4874	14622	477.54
3. Periyar Valley	36500	85600	2558	6995	17613	44032	127.08
4. Chitturpuzha	17287	32550	1060	1972	13054	24281	297.61
5. Kambhirapuzha	9718	21863	..	..	..	..	506.06
6. Kuttialdi	25485	31161	2026	6078	6349	19047	457.64
7. Pazhani	22255	32374	..	..	..	..	62.31
8. Muvattupuzha	20880	52200	..	..	..	..	41.28
9. Chhmony	13000	26200	..	..	..	..	35.50
10. Astappady	5187	6200	..	..	..	..	34.25
11. Karupuzha	5580	9300	..	..	..	..	0.12
12. Moanachil	4000	10000	..	..	..	..	6.50
13. Idamalayar	13659	57400	..	..	..	..
Total—B.	279449	511731	8034	21615	41890	101982	3157.65
C. Research & Investigation	..	..	..	..	..	..	23.10
Total	413865	679489	8034	21615	..	248578	3214.80

Minor Irrigation

5.6 Minor irrigation schemes play a significant role in correcting the mal adjustments in the availability of water caused by the uneven distribution in rainfall, unreliability of the monsoons, and the undulating topography of the State. It has been possible to bring an additional net area of 6,632 hectares under minor irrigation, corresponding to a gross area of 7,315 hectares during 1977-78. At the end of the year, the net area

brought under minor irrigation is 1,25,172 hectares. Of this the contribution of minor irrigation class I schemes has been 14,224 hectares (net) or 20502 hectares (gross) followed by irrigation class I schemes (P.W.D. and people's participation) with 62,525 hectares (net), lift irrigation schemes with 23,039 hectares (net) or 34,559 hectares (gross). The amount invested during the year 1977-78 on minor irrigation schemes was Rs. 8.93 crores. The details relating to physical achievements and expenditure are given in Table 5.2.

TABLE 5.2

Physical Achievements in Minor Irrigation

Type of Minor Irrigation Scheme	Achievement in hectares During 1977-78		Total at the end of 1977-78		Amount Invested (Rs. in lakhs)
	Net	Gross	Net	Gross	
(1)	(2)	(3)	(4)	(5)	(6)
1. Minor Irrigation Class—I	532	798	14,242	20,502	..
2. Minor Irrigation Class—II	3242	3242	62,527	62,527	..
3. Lift Irrigation	834	1251	23,039	34,559	..
4. Others (I. P. D. DFG etc.)	2024	2024	7,584	7,584	..
Total	6632	7315	1,07,392	1,25,172	892.89

Flood Control and Anti-sea Erosion

5.7 Floods have caused destruction of property and also led to loss of precious human lives during 1978. Hence the need for finding a permanent solution to the flood problem and accelerating the tempo of flood control works has been widely felt and accepted. During 1977-78, as part of flood control works 13.17 km. of embankments and 0.20 km. of drainage channels were constructed.

Till the end of 1977-78 about 57 km. of embankments and 6 Km. of drainage channels were constructed to protect about 14,000 hectares of land.

5.8 Under anti-sea erosion works, an additional length of 17.585 km. of coast line was protected at a cost of Rs. 3.94 crores during 1977-78. Till the end of 1977-78, a length of 190.456 km. of coast line has been protected. This length constitutes only about 60 per cent of the severely affected coast line which requires immediate protection from erosion. The details relating to physical achievements and investments relating to flood control and anti-sea erosion works during 1977-78 is furnished in Table 5.3.

TABLE 5.3
Flood Control and Anti-sea Erosion

Classification of the Scheme	Benefits During 1977-78	Amount Invested (Rs. in lakhs)
(1)	(2)	(3)
A. Flood Control		
1. Construction of Embankment (Km.)	13.186	50.28
2. Length of Drainage Channel Constructed (Km.)	0.200	
3. Village Protected (Nos.)	1	
4. Town Protected. (Nos.)	1	
5. Area Benefited (Ha.)	3288.000	
B. Anti-Sea Erosion		
6. Coast Line Protected (Km.)	17.585	394.41

Power

5.9 The process of modernisation, increase in productivity in industry and agriculture and improvement in the quality of life of the people are dependent upon adequate and reliable supply of electrical energy. Hence power development has been assigned a high priority in the State's Five Year Plans. Investment in the power sector accounted for about 28 per cent of the total State Plan outlay till now.

5.10 It is estimated that Kerala has a power potential of three million Kilowatts of hydel power. So far Kerala has harnessed only 1.01 million kilowatts (1011.5 MW) of hydel power i.e. nearly 1/3 of the potential. The present installed capacity however is only 961.5 MW. With the rehabilitation of No. 6 machine at Sabarigiri the system capacity will be restored to 1011.5 MW.

5.11 The details of investment on generation, transmission, distribution and rural electrification during the various plan periods are given in Table 5.4.

TABLE 5.4
Plan Investment on Power Development

Period	(Rs. in lakhs)				Total
	Generation	Transmission & Distribution	Rural Electrification**	Others	
(1)	(2)	(3)	(4)	(5)	(6)
Upto I-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)***	5673.00	3709.00	669.00	100.00	10151.00

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

*** The expenditure for 1977-78 is provisional.

5.12 With the completion of successive Five Year Plans in the State the generation capacity of Kerala's power system increased from 28.5 MW in 1950-51 to 1011.5 MW in 1977-78. The major projects contributing to this generation capacity are Idukki Stage-I (390 MW) and Sabarigiri (300 MW). During 1977-78 there was no addition to the generating capacity of the power system. The total quantity of power generated in the State rose from 591 MKWH in 1960-61 to nearly 4471 MKWH in 1977-78. The power generation capacities of the various power projects in the State and the actual generation of power in 1977-78 are shown in Table 5.5.

TABLE 5.5
Power Projects in Kerala

Name of Project	Installed capacity in M.K.W.H.	Energy potential in M.K.W.H.	Units generated in 1977-78 (M.K.W.H.)
(1)	(2)	(3)	(4)
1. Pallivasal	328.50	284	179.799
2. Sengulam	420.48	182	166.758
3. Neriamangalam	394.20	237	293.233
4. Panniar	262.80	148	95.514
5. Peringalkuthu	280.32	170	238.474
6. Sholayar	473.04	233	198.971
7. Sabarigiri	2190.00	1213	1065.494
8. Kuttiyadi	657.00	248	269.861
9. Idukki	3416.40	2015	1962.550
	8422.74	4790	4470.594

5.13 The investment on power during the earlier plans starting from 1951-52 to 1977-78 laid much emphasis on power generation. Out of about Rs. 385 crores, on capital account invested in the power sector about Rs. 235 crores were spent on generation and about Rs. 137 crores on transmission, distribution and rural electrification works. Thus the need for a balanced development of generation, transmission and distribution is generally felt. In order to cover up the backlog in the matter of transmission and distribution works during the past plan periods, more emphasis on transmission and distribution schemes in the Five Year Plan period 1978-83 is called for. The details of achievement in respect of power development during the year 1977-78 are discussed below:—

Generation

(1) *Idamalayar*: Upto the end of the Fifth Plan (1977-78) an amount of Rs. 11.42 crores has been incurred on the scheme on preliminary works, infrastructure works, works on dam, advance action for procurement of generating equipments etc. The dam concreting has already been started. The work in water conductor system (power tunnel) is in progress.

(2) *Idukki Stage-III*: Preliminary works on the scheme commenced in 1975-76 and upto the end of 1977-78 an amount of Rs. 3.12 crores was incurred on the scheme.

(3) *Sabarigiri Augmentation*: Till the end of 1977-78, an amount of Rs. 1.32 crores was incurred on the scheme. The concentration of works was mainly in the Kakki catchment portion. During 1977-78 work in both Pamba and Kakki catchments were in full swing. It is programmed to complete the excavation of Kallar dam Gaviar Dam (6400 M³).

(4) *Silent Valley H. E. Scheme*: Though the Planning Commission has cleared the Silent Valley H.E. Scheme in 1973, not much progress could so far be achieved. Paucity of funds and objections on ecological grounds were the main reasons which stood in the way of progress in the work. During 1977-78 some infrastructure work could be done with the token provision of Rs. 50 lakhs earmarked for the scheme.

Transmission

5.14 Achievements in respect of transmission sector during the Fifth Plan period ending 1977-78 are given in Table 5.6.

TABLE 5.6
Progress of Achievements on Transmission

Particulars	End of 4th	Fifth Plan
	Plan as on 31-3-1974	as on 31-3-1978
(1)	(2)	(3)
1. 220 K.V. Lines—Ct. Km.	316.4	853.77
2. 110 K.V. Lines—Ct. Km.	1350.0	1403.45
3. 66 K.V. Lines—Ct. Km.	9447.0	12176.0
4. L.T. lines—Ct. Km.	20968.0	37190.6
5. Step up Transformer Capacity—MVA	717.5	1149.6
6. No. of E.H.T. Sub-stations	59	75
7. Step down Transformer Capacity— M.V.A.	1269.0	1753.5
8. Distribution Transformers		
a. Nos.	8285	9877
b. Capacity—K.V.A.	566260	890959

5.15 Inadequacy of financial provisions during the earlier years of the Fifth Plan caused shortfalls in the achievement of the targets in the transmission sector. A review of the progress of works have now shown that the total cost of the spillover works from the Fifth Plan itself is about Rs. 20 crores.

Distribution and Rural Electrification

5.16 A total number of 81,571 service connections were provided during the year 1977-78 as against a target of 40,000. During the year 1984 street lights were also provided. As against the target of 20 villages to be electrified 12 villages were electrified during the period. A total number of 5774 irrigation pumpsets were also energised during the year.

The district-wise distribution of pumpsets energised in the State as on 31-3-1978 is shown in Table 5.7.

TABLE 5.7
Pumpsets Energised—District-wise

District	No. of Pumpsets energised as on	
	31-3-1977	31-3-1978
(1)	(2)	(3)
Trivandrum	424	548
Quilon	409	493
Kottayam	1100	1312
Idukki	553	660
Alleppey	2582	2627
Ernakulam	15898	16841
Trichur	22141	24894
Malappuram	2639	2828
Palghat	5490	6513
Kozhikode	428	478
Cannanore	1484	1736
Total	53148	58922

5.17 All revenue villages in the State will be electrified by the end of 1978-79. However, it is to be noted that in most of the 'electrified' villages, many rural areas and rural house-holds are not served by electricity. Thus what is needed in the field of rural electrification is extension of transmission lines to all parts of the villages so that all the households could get the benefit

of electrification. A recent study conducted by the State Planning Board shows that more than 800 villages (Karas or Desoms) in the State are yet to be electrified in the sense that at least one electric line touches the village. Hence a massive programme has to be drawn up for rural electrification in the State.

TABLE 5.8
Electrical Energy Consumed and Revenue Realised (1977-78)

Category (1)	No. of Consumers (2)	% to total (3)	Energy Consumed		Revenue Collected	
			MKWH (4)	% to total (5)	Rs. lakhs (6)	% to total (7)
1. Industrial High Voltage and E.H.T. and Low and Medium Voltage	29,047	2.71	1720.94	73.83	1617.93	51.14
2. Domestic Lights and Fans, Heat and Small Power	7,55,591	70.48	249.95	10.72	605.27	19.13
3. Commercial Lights and Fans, Heat and Small Power	2,26,603	21.13	130.49	5.60	524.43	16.58
4. Others (Excluding Export)	60,774	5.68	229.96	9.85	416.08	13.15
Total	10,72,015	..	2331.34	..	3163.71	..

5.18 The energy consumption within the State rose to 2331 million units in 1977-78 showing an increase of 194 million units over the previous year. Out of the total quantity of energy consumed in the State nearly 74 per cent has been for industrial purposes but industry contributes to only about 51 per cent of the revenue realised by the Electricity Board. Though domestic consumers (who form 70 per cent of the total consumers) account for only 10 per cent of the total power consumption, this class contributes 19 per cent of the total revenue of the Board (See Table 5.8).

Financial Position of the Kerala Electricity Board

5.19 The revenue receipts of the State Electricity Board through sale of energy rose from Rs. 40.17 crores in 1976-77 to Rs. 57.09 crores in 1977-78. The net surplus available for payment of interest on loans received from the State Government and other financial institutions came to Rs. 15.40 crores after meeting

depreciation and other expenses as compared to a net surplus of Rs. 11.64 crores in the previous year. During the year 1977-78 a sum of Rs. 5 crores has been released by the State Government towards subsidy for loss incurred by the Board for rural electrification works.

5.20 The capital investment of the State Electricity Board at the end of 1977-78 stood at Rs. 386.26 crores as against Rs. 350.46 crores at the end of 1976-77. The loans outstanding during the year increased to Rs. 291.25 crores from Rs. 272.77 crores in the previous year. Loans raised during the year was Rs. 20.67 crores as against Rs. 22.89 crores in the previous year. Loan repaid during 1977-78 amounted to Rs. 2.19 crores as against Rs. 3.85 crores in the previous year. The total amount of interest payable was Rs. 18 crores and it was available for repayment during the year. (See Appendix 5.3).

CHAPTER 6 INDUSTRY

An Overview

The year 1977-78 witnessed a growth of 7.4 per cent in the Gross National Product as against a modest 1.4 per cent during 1976-77. The major contributing factor for this comparatively better showing at the national level is the impressive growth in agricultural production, especially in the production of food grains, oil seeds, cotton, sugarcane and tea. But owing to the fall in investment in certain industries, inadequate supply of coal and cement, power shortage, transport bottlenecks and the none too satisfactory labour situation, the growth rate in industries was only 5.3 per cent in 1977-78 as against 10.4 per cent in 1976-77. In fact industries such as power, coal, textiles, industrial machinery, leather, machine tools, commercial vehicles etc. witnessed negative growth rates. The shortage of power was particularly acute in some areas with high concentration of industry and transport bottlenecks delayed the movement of goods. Fortunately in the latter part of 1978 there were indications of all round improvement in the industrial sector. Some of the policy announcements of far reaching impact on industrial growth were made in 1977-78. The basic industrial strategy was spelt out in detail in the new Industrial Policy Statement of December 1977. This policy statement is mainly directed at removing the distortions of the past. A major component of the new industrial policy is the creation of additional employment opportunities in the industrial sphere through the development of small and tiny sector units and adoption of employment-oriented technologies. The other important components are the maximisation of production of consumer goods, optimum utilisation of human and material resources, restriction of monopolies and curbing concentration of economic power and making industry responsive to social needs. All these policy measures are directed towards improvement of the industrial climate. But the problem of industrial sickness which has been growing in dimension and seriousness indicates some imbalances within the industrial sector and calls for prompt attention.

6.2 The performance of Kerala State in the industrial front during 1978 cannot be considered quite impressive though the year was characterised by several Governmental measures to promote industrialisation. Factors such as inadequacy of raw materials, cement, coal etc. and power interruptions again stood in the way of rapid industrial growth. The public sector continued to play the major role in the development of industries in Kerala especially those of the large and

medium type. The Kerala State Industrial Enterprise the holding company for six Government owned companies continued its efforts to revitalise its subsidiaries by providing necessary funds, and by systematic monitoring of their performance. Sitaram Textiles, Kerala Minerals and Metals and Kerala Premo Pipe Factory are the other Government owned companies but they are outside the purview of the holding company. Among the new companies which are being promoted by Government, Malabar Cements has made much headway in implementing the Walayar Cement Project, while the Steel Industrials, Kerala Ltd. (SILK) is in a formative stage. Considerable progress has also been achieved in the setting up of a titanium complex by the Kerala Minerals and Metals Ltd. There are several companies in the State whose majority shares are held by the State Government. Of these companies the performance of units such as Travancore Cochin Chemicals, Pallathra Bricks & Tiles, Chalakydy Refractories, and United Electrical Industries leaves much to be desired. They are incurring losses over a number of years. The Travancore Cochin Chemicals alone has incurred a loss of Rs. 2.59 crores in 1977-78. Though the remaining majority companies are running on a profit, their profit margin has declined during 1977-78. Among the Government of India companies in the State, the Fertilizers and Chemicals, Travancore, Ltd., in spite of its all round progress in production, sales and restructuring of share capital, incurred a net loss of over Rs. 8 crores. The profitability of Hindustan Insecticides, Modern Bakeries and Indian Rare Earths was eroded by loss of production on account of labour troubles. The fabrication of "Rani Padmini", the first ship of the Cochin Shipyard, is almost over, and the Company has also initiated the work relating to the second ship. The Shipyard has completed all civil engineering works except the Repair Dock, and installed all items of machinery except the 150 tonne crane. The Kerala Newsprint Project at Vellor, though not progressing as scheduled, due to labour agitation, is expected to start production by the middle of 1980.

6.3 Kerala State Industrial Development Corporation which is the premier organisation in the State for the promotion of large and medium industries continued to render promotional and financial assistance to a number of large and medium industries. The Corporation has share capital investments in 42 companies of which nine are in the public sector, eleven in the joint sector and the remaining in the private sector. It has

also loan assistance tie up with 29 companies and promotional agreements with co-promoters in 16 companies. The Kerala State Electronics Development Corporation is engaged in the promotion of electronic units in the State. The Corporation, along with its subsidiary/associate companies has invested over Rs. 11 crores in various projects for the manufacture of electronic components and equipments. The Kerala State Textile Corporation manages four sick textile mills of the State. The Kerala State Industrial Products Trading Corporation formed in 1976-77 for the procurement and sale of monopoly products of Government owned and Government majority companies failed to make much headway in its operations due to certain procedural and technical difficulties. The Kerala Minerals Exploration and Development Project assisted by the UNDP is initiating geological exploration in different districts of the State.

6.4 The traditional industries, cashew, coir and handloom, sustain a large volume of employment. The industries face problems which are too many and varied. The State is making concerted attempts at reorganisation of these industries. Cashew industry which employs nearly 1.3 lakhs of workers is facing critical situation owing to shortage of raw materials as a result of declining raw nut imports. The State owned Cashew Development Corporation had to sustain heavy loss owing to the sudden fall in the international price of cashew kernels. The efforts to make available adequate quantity of raw husks to the coir industry are yet to meet with success. The handloom industry is also beset with problems like soaring price of raw materials, accumulation of unsold stocks, severe competition from mill sector and marketing problems. In the case of traditional industries like coir, handloom and beedi the State's efforts are mainly directed at bringing more of the workers into the co-operative fold.

6.5 Special institutional agencies have been created in the State for the promotion of small scale industries. 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 institutions which are rendering services to the intending entrepreneurs in the small scale sector. The latest organisation support for small scale and tiny units is the establishment of District Industries Centres at the district headquarters. These centres will serve as focal points for the development of small and village industries and arrange to supply, under one roof, all the services required for their development. They will act both as promotional and implementing agencies. Action has already been initiated for the setting up of district industries centres in all the eleven districts of the State. The Mini-Industrial Estates Programme initiated by the State is proposed to be continued in a systematic and scientific manner.

Joint Stock Companies

6.6 The total number of joint stock companies in Kerala was 1505 as on 31-3-1977. Of these companies, 448 were public limited companies and 1057 private limited companies. Seventeen public companies and sixty six private companies were newly registered during 1977-78, while three public companies and ten private companies were wound up. Thus at the close of the year 1977-78, the total number of joint stock companies in the State stood at 1573, composed of 466 public limited companies and 1107 private limited companies. Five new Government companies were registered during 1977-78, raising the total number of registered Government companies to seventy. The five Government companies newly registered were the Overseas Development and Employment Promotion Consultants Ltd., Oil Palm India Ltd., Kerala Fishermen's Welfare Corporation Ltd, Kerala Automobiles Ltd., and Kerala State Engineering Works Ltd. The number of companies in liquidation as on 31-3-1977 was 236. Six more companies were under liquidation during 1977-78, thereby raising the total number of companies under liquidation to 242 as on 31-3-1978.

Working Factories

6.7 The total number of working factories in the State increased by 704, i.e. from 6921 in 1976 to 7625 in 1977. A district-wise distribution of registered working factories at the end of 1976 and 1977 is given in Table 6.1.

TABLE 6.1
Registered Working Factories in Kerala

District	No of Registered Working Factories at the end of		Variation
	1976	1977	
(1)	(2)	(3)	(4)
1. Trivandrum	274	295	(+) 21
2. Quilon	724	800	(+) 76
3. Alleppey	513	561	(+) 48
4. Kottayam	538	616	(+) 78
5. Idukki	128	123	(-) 5
6. Ernakulam	1081	1059	(-) 22
7. Trichur	812	884	(+) 72
8. Palghat	630	746	(+) 116
9. Malappuram	131	149	(+) 18
10. Kozhikode	1041	1181	(+) 140
11. Cannanore	1049	1208	(+) 159
Total	6921	7625	(+) 704

6.8 The increase in the number of factories has been significant in the districts of Cannanore (159), Kozhikode (143) and Palghat (116). In Ernakulam and Idukki districts there was a decline in the number of factories, as compared to the previous year, the decrease being 22 in Ernakulam and 5 in Idukki.

6.9 The average daily employment in all the registered working factories has shown only a nominal increase of 4385. The total factory employment has thus increased from 2,81,201 at the end of 1976 to 2,85,586 at the end of 1977 (See Appendix 6.1). Though there were 704 additional units during this period, the corresponding increase in employment was only 4385 (an average of six persons per every new unit). This indicates a tendency for the emergence of units employing less than ten workers per unit. There was no change in the overall employment pattern with cashew industry which accounting for a major share of factory workers, followed by cotton textile industry and tile industry.

Large and Medium Industries

6.10 In Kerala the public sector has been the major investor in large and medium industries. The public sector undertakings in the State are classified into (i) Government-owned companies in which all the shares are held by the State Government and (ii) Government majority companies, in which more than 50 per cent of the shares are held by State Government.

Government Owned Companies

6.11 The major Government owned industrial concerns in the State are:

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

6.12 The paid up capital of these ten companies together is Rs. 991.97 lakhs (as on 31-3-1978) and they provide direct employment to 4159 persons. Compared to the previous year, the paid up capital of these companies has increased by Rs. 171.95 lakhs and employment by 322 in 1977-78. The value of production as well as sales of this group of companies has increased significantly. The value of production increased to Rs. 1118.74 lakhs in 1977-78 from Rs. 916.45 lakhs in the previous year. The corresponding increase in the sales turnover was Rs. 1165.86 lakhs from Rs. 987.40 lakhs in the previous year. In spite of the additional investment on modernisation/ diversification, and improvement in production and sales, the net financial result of the Government owned companies taken together

has been quite discouraging. The total net loss of this group of companies actually increased to Rs. 174.37 lakhs in 1977-78 from Rs. 75.48 lakhs in 1976-77.

6.13 The State Government after a series of trials at improving the constitution, management and organisational structure of these companies has finally entrusted six of the Government owned companies to a holding company, the Kerala State Industrial Enterprises Ltd. The following are the six companies managed by the holding company:—

1. Kerala Ceramics Ltd.
2. Kerala Electrical and Allied Engineering Company Ltd.
3. Kerala Soaps and Oils Ltd.
4. Kerala State Drugs and Pharmaceuticals Ltd.
5. Travancore Plywood Industries Ltd. and
6. Trivandrum Rubber Works Ltd.

6.14 During 1977-78 the holding company continued its efforts to revitalise the operations of the subsidiary companies by providing necessary funds and by a systematic monitoring of the performance of the companies. Recognising the specific needs of some of the subsidiary companies which were facing difficult operating conditions, the holding company provided an amount of Rs. 251.92 lakhs to them as interest-free loan in 1977-78. Investment in the form of equity share capital of Rs. 63.6 lakhs was also made as promoter's contribution for the implementation of the various projects of the subsidiary companies. Institutional finance was also arranged for working capital and project finance requirements.

6.15 Among the six subsidiary companies, except the Kerala State Drugs and Pharmaceuticals are incurring losses at present. The Kerala State Drugs and Pharmaceuticals has more or less retained its profit margin of about Rs. 4 lakhs as previous year. The Travancore Plywood Industries has maintained its loss at the previous year's level of about Rs. 10 lakhs. The loss sustained by the remaining four companies, however, have increased substantially during this period. The loss of Trivandrum Rubber Works has risen from Rs. 18.40 lakhs to Rs. 59.19 lakhs, Kerala Ceramics, from Rs. 41.55 lakhs to 53.51 lakhs, Kerala Electrical and Allied Engineering Company, from Rs. 23.38 lakhs to Rs. 44.11 lakhs and that of Kerala Soaps and Oils from Rs. 6.01 lakhs to Rs. 16.26 lakhs. The total loss sustained by all the six companies together, which was around Rs. 95.81 lakhs in 1976-77, increased to Rs. 179.31 lakhs in 1977-78. Certain salient features of the six subsidiary companies of the Kerala State Industrial Enterprises are presented in Table 6.2.

TABLE 6.2

Statistics Relating to the Operations of the Subsidiary Companies of the Kerala State Industrial Enterprises Ltd.

Name of Company	Paid up capital (Rs. lakhs)	No. of employees as on 31-3-1978	1976-77		1977-78		Management fees received in 1977-78 (in Rs.)
			Sales (Rs. Lakhs)	Net Profit/ Loss (Rs. Lakhs)	Sales (Rs. Lakhs)	Net Profit/ Loss (Rs. Lakhs)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Kerala Ceramics Limited	107.95	639	83.62	(-)41.55	86.93	(-) 53.51	45,825
2. Kerala Electrical and Allied Engineering Company Ltd.	105.82	554	126.40	(-)23.38	215.63	(-)44.11	32,425
3. Kerala Soaps and Oils Ltd.	149.97	420	138.45	(-) 6.01	165.36	(-) 16.26	36,500
4. Kerala State Drugs and Pharmaceuticals Ltd.	45.00	280	179.22	(+) 4.47	170.01	(+) 4.45	31,830
5. Travancore Plywood Industries Ltd.	48.58	506	164.71	(-)10.94	162.98	(-)10.69	53,450
6. Trivandrum Rubber Works Ltd.	57.70	416	156.69	(-)18.40	107.00	(-)59.19	50,500
Total	515.02	2815	849.09	(-) 93.81	908.11	(-) 179.31	2,50,530

6.16 Under-utilisation of rated capacity, lower volume of production, and consequent higher cost of production, increases in expenses on salaries, wages etc., higher interest burden, poor demand for products, competition from private manufacturers and adjustment of certain expenditure relating to previous years etc. are the reasons for the increased loss sustained by the subsidiary companies of the Kerala State Industrial Enterprises.

6.17 In addition to the six companies mentioned above, the holding company has now formed a new subsidiary company, "the Kerala State Detergents and Chemicals" at Malappuram to manufacture 10,000 tonnes of detergents per annum. The erection of plant and machinery under the first phase is in progress. The plant is expected to go on trial run shortly. Another private company, 'the Super Clays and Minerals Mining Company' is also managed by the holding company. This company has shown some improvement in its performance during 1977. Its turnover increased from Rs. 7.08 lakhs in 1976 to Rs. 17.58 lakhs in 1977. The Company could make a profit of Rs. 0.15 lakhs in 1977 as against a loss of Rs. 0.75 lakhs in 1976.

6.18 The progress achieved by the subsidiary companies of Kerala State Industrial Enterprises in new plant facilities are detailed below:

- (i) The Rs. 65 lakh project for the manufacture of railway alternators in Kerala Electrical and Allied Engineering Company has started production.
- (ii) The Rs. 154 lakh project for the manufacture of paper coating clays in the Kerala Ceramics has gone into commercial production.

- (iii) The Rs. 80 lakh project of the Mazzoni automatic soap making plant in Kerala Soaps and Oils is giving full rated capacity production.
- (iv) The Rs. 28 lakh project for glycerine in Kerala Soaps and Oils is on trial run.
- (v) The Rs. 70 lakh formulation plant of Kerala State Drugs and Pharmaceuticals is giving satisfactory production.
- (vi) The first phase of the Rs. 3.12 crore detergent plant is under erection.

Besides, the following new projects have been taken up for implementation with the active participation of the holding company:

- (a) The Rs. 492 lakh project for the manufacture of 30 MMU Vitamin A in Kerala State Drugs and Pharmaceuticals.
- (b) The Rs. 285 lakh project to manufacture 4000 tonnes of glazed wall/floor tiles. This project is to be implemented by taking over the Super Clays and Minerals Mining Company.
- (c) The Rs. 30 lakh project for the manufacture of 6000 tonnes of stoneware pipes. This again is to be implemented after taking over Super Clays Project.
- (d) The Rs. 120 lakh project to increase the capacity of production of soaps from 4300 tonnes to 9000 tonnes at the Kerala Soaps and Oils Ltd.
- (e) The Rs. 16 lakh project to manufacture 2,50,000 numbers of journal lubricating pads at the Trivandrum Rubber Works'

- (f) The Rs. 24 lakh project to manufacture 2,50,000 metres of decorative veneer plywood at the Travancore Plywood Industries.

6.19 Among the remaining Government owned companies, which are outside the management of the holding company, the Kerala Minerals and Metals Ltd., Kerala Premo Pipe Factory and the Sitaram Textiles are running on profit. The net profit of these three concerns during 1977-78 were Rs. 9.16 lakhs Rs. 9.36 lakhs and Rs. 0.66 lakh respectively. The Trivandrum Spinning Mills is at present managed by the Kerala State Textile Corporation.

6.20 Data relating to the paid up capital, workers employed, production, sales, financial results, production and capacity utilisation of the Government owned companies for the years 1976-77 and 1977-78 are furnished in Appendix 6.2 and 6.3.

6.21 The State Government has recently taken up initial work relating to the two projects, the Steel Industrials, Kerala Ltd. (SILK) and the Malabar Cements Ltd. The progress achieved in the implementation of these projects is indicated below.

Steel Industrials Kerala Ltd. (SILK)

6.22 The Steel Industrials Kerala Ltd., was formed with a paid up capital of Rs. 39.39 lakhs to implement the following projects:

1. Steel Casting Foundry
2. Steel Forging and Spring Manufacturing Unit
3. Steel Structural and Fabrication Unit
4. Roller Bearing Unit

6.23 The Project-cum-Feasibility Report of the Steel Casting Foundry Unit to be located at Shertallai is pending Government's approval. The Project-cum-Feasibility Report of the Steel Forging and Spring Manufacturing Unit at Athani was revised to the effect that the Company should also take over the assets of TETCOS while implementing this unit. The project reports for the Steel Structural and Fabrication Unit and the Roller Bearing Unit at Alleppey are under preparation. The Government have allotted 95 acres of land at Athani for the Forging Unit, and sanctioned acquisition of 140 acres of land in Shertallai for the remaining three units. The Company expects to commence work on these projects as soon as the Government clears the project. On completion, these four projects of the Company will provide direct employment to about 1760 persons.

Malabar Cements

6.24 A public limited company by name "Malabar Cements Limited" in the State Sector was incorporated on 11th April 1978, for setting up a 1200 tonnes per day

cement plant at Walayar based on local limestone deposits. The company has initiated a number of steps for the establishment of the project. It has entrusted the Indian Bureau of Mines with the preparation of mining plan and the Holtec Engineers Private Limited with the preparation of the project report and the provision of engineering services. Steps have also been taken to acquire and take advance possession of the required land, and to make available all infrastructure facilities. The company has also taken advance action to procure equipments like the main plant and machinery which in normal cases require 18 to 24 months for delivery. A site office of the company has been opened at Palghat in order to plan and implement various field activities. This project estimated to cost Rs. 30 crores and provide employment to 1000 persons, is expected to go into production by the end of 1981.

Government Majority Concerns

6.25 The companies coming under this group are:—

1. Chalakudy Refractories, Trichur.
2. Forest Industries (Travancore) Ltd., Alwaye.
3. Pallathra Bricks and Tiles, Shertallai.
4. Traco Cable Company, Cochin.
5. Transformers and Electricals Kerala Ltd., Angamali.
6. Travancore Cements, Nattakom.
7. Travancore Cochin Chemicals, Edayar.
8. Travancore Titanium Products, Veli.
9. United Electrical Industries, Quilon.

6.26 The total paid up capital of this group of companies increased from Rs. 1425.47 lakhs to Rs. 1494.03 lakhs during the year 1977-78. Chalakudy Refractories, Transformers and Electricals Kerala, United Electrical Industries and Traco Cable Company are the companies which increased their paid up capital in 1977-78. The additional employment created during the year was however only 95, with total employment increasing to 5147 from 5052. The value of production increased in the case of Forest Industries (Travancore) Ltd., Transformers and Electricals, Travancore Cements, Travancore Titanium Products and United Electrical Industries, while it decreased in the case of Chalakudy Refractories, Traco Cable Company, and Travancore Cochin Chemicals. The value of production decreased to Rs. 588 lakhs in Travancore Cochin Chemicals during 1977-78 from Rs. 896.10 lakhs in 1976-77. The decrease in Traco Cable Company was from Rs. 394 lakhs to Rs. 313.59 lakhs and in the case of Chalakudy Refractories from Rs. 12 lakhs to Rs. 6.06 lakhs. The overall value of goods produced by this group of companies, thus decreased to Rs. 3463.71 lakhs, from Rs. 3510.16 lakhs in 1976-77. But all the companies except Travancore Cochin Chemicals and Chalakudy Refractories improved their sales, whereby the total sales of all the companies increased to Rs. 3496.35 lakhs in 1977-78 from Rs. 3068.33 lakhs in 1976-77.

6.27 Among the Government majority companies, the Forest Industries (Travancore) Limited, Traco Cable Company, Transformers and Electricals Kerala Limited, and Travancore Titanium Products are running at a profit though substantial decline in their profit margin was registered in 1977-78 compared to the previous year. In the case of Travancore Cements the profit margin registered an increase during 1977-78. A loss of Rs. 258.62 lakhs was incurred by Travancore Cochin Chemicals and Rs. 17.25 lakhs by the United Electrical Industries. The substantial loss incurred by these two major companies has considerably affected the overall financial performance of this group of companies as the total loss increased to Rs. 139.29 lakhs in 1977-78 as against Rs. 74.11 lakhs in the previous year.

6.28 The installed capacity, production and capacity utilisation of the Government majority companies are given in Appendix 6.5. It reveals the poor capacity utilisation of the plants except in the case of Travancore Cements. The capacity utilisation of Travancore-Cochin Chemicals was as low as 46 per cent in the case of caustic soda and chlorine, 11.5 per cent in hydrosulphate and 27.3 per cent in sodium sulphide.

6.29 Data regarding the paid up capital, the number of workers employed, production, sales, financial results, capacity, production and capacity utilisation of the Government majority companies for the year 1976-77 and 1977-78 are given in Appendix 6.4 and 6.5.

Kerala State Industrial Development Corporation

6.30 The activities of the Kerala State Industrial Development Corporation fall mainly under two broad categories, namely, promotional and financial. On the promotional side it undertakes a wide range of functions which include, *inter alia*, identification of projects, securing letters of intent and industrial licence, arranging technical collaboration, securing institu-

tional finance, obtaining land and other infrastructure facilities, participation in management, selection and training of key personnel and exploration of minerals. On the financial side the Corporation assists large and medium industries by direct contribution to their share capital, underwriting of shares, provision of term loans and guarantee to third parties on behalf of aided companies.

6.31 The year 1977-78 witnessed a significant increase in the activities of the Corporation. The Corporation received applications for financial assistance to the tune of Rs. 314.74 lakhs during 1977-78, of which applications worth Rs. 302.74 was sanctioned. The actual disbursement of funds totalled Rs. 194.49 lakhs. A comparative statement of financial assistance rendered by the Corporation during the last three years is given below in Table 6.3.

TABLE 6.3

Details	(Rs. in lakhs)		
	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)
Applications Received	250.83	186.60	314.74
Applications Sanctioned	223.73	171.60	302.74
Amount Disbursed	148.36	84.61	194.49

6.32 Out of the aggregate amount of Rs. 302.74 lakhs during 1977-78, Rs. 91.24 lakhs was sanctioned towards share capital, Rs. 111.50 lakhs towards loans and Rs. 100 lakhs towards guarantees. The Corporation disbursed Rs. 65.85 lakhs as share capital, Rs. 128.31 lakhs as loans, and Rs. 0.33 lakh under guarantees. The amount disbursed under guarantees represents the actual amount paid by the Corporation on behalf of defaulting companies. Table 6.4 indicates the nature and extent of financial assistance sanctioned and disbursed during the three years, 1975-76 to 1977-78.

TABLE 6.4

Item	1975-76		1976-77		1977-78	
	Sanctioned	Disbursed	Sanctioned	Disbursed	Sanctioned	Disbursed
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Share Capital	67.13	28.86	30.60	18.06	91.24	65.85
Loans	139.25	110.23	86.00	63.95	111.50	128.31
Guarantee	17.35	9.27	55.00	2.60	100.00	0.33
Total	223.73	148.36	171.60	84.61	302.74	194.49

6.33 The Corporation had share capital investment in 42 companies, of which nine are in the public sector, eleven in the joint sector and the remaining in the private sector. The Corporation also had outstanding

loan assistance tie up with twenty-nine companies and promotional agreements with co-promoters in sixteen companies.

6.34 The paid up capital of the Corporation as on 31-3-1978 stood at Rs. 464 lakhs. The Corporation has invested Rs. 569.44 lakhs in the equity and preference capital of promoted and assisted companies, and extended loan assistance to the tune of Rs. 674.53 lakhs to various companies. Thus the total share capital and loan investments in aided companies stood at Rs. 1244 lakhs as on 31st March 1978. The State Government has not enhanced its investment in the share capital of the Corporation. Therefore the Corporation, as in previous years, has to augment its resources by the issue of bonds, and such borrowings during the year amounted to Rs. 110 lakhs, making the aggregate borrowing to Rs. 791 lakhs as on 31-3-1978. The Corporation also obtained an amount of Rs. 10 lakhs by way of loan from the State Government during 1977-78.

6.35 The gross income of the Corporation in 1977-78 was Rs. 104.24 lakhs as against Rs. 78.80 lakhs in the previous year. The net profit also increased from Rs. 12.74 lakhs in 1976-77 to Rs. 32.91 lakhs in 1977-78. In spite of the increase in the payment of interest on borrowings, the Corporation was able to enhance its profit earnings during the year largely due to the increased dividend receipts. Some of the units which were either unable to declare dividends earlier due to the operation of the Companies (Temporary Restriction of Dividends) Act or had to restrict the rate of dividends, declared higher quantum of dividends during the year 1977-78.

Kerala State Electronics Development Corporation

6.36 During the early seventies there were hardly any electronic units in Kerala except two units in the organised private sector. Realising the backwardness of the State in the field of electronics and the potential for the growth of this industry on account of the availability of skilled labour, the Government set up the Kerala State Electronics Development Corporation in 1972. The Corporation soon commenced production of various electronic equipments in its factory at Karakulam in Trivandrum. Simultaneously it promoted thirteen new companies for the implementation of the various projects. The Corporation adopted a policy of equitable distribution of electronic industries in the State. With this objective in view it started the production of electronic equipments at the Equipment Complex at Trivandrum, passive components at the Component Complex at Cannanore and active components at the Semi-Conductor Complex at Trichur.

6.37 Today a strong foundation has been laid for building up of electronic industry in Kerala on a sound footing. The Kerala State Electronics Development Corporation and its subsidiary/associate companies have invested Rs. 1119 lakhs as on March 1978, in the various projects for the manufacture of electronic

components and equipments. Table 6.5 gives the investment profile of the Corporation and its subsidiary/associate companies.

TABLE 6.5

Investment Profile of Kerala State Electronics Development Corporation and its Subsidiary/Associate Companies

(Rs. in lakhs)			
Project	Total Project Cost	Investment made as on 31-3-1978	Balance to be invested
(1)	(2)	(3)	(4)
1. T.V. Receivers	57	57	..
2. T.V. Systems	25	8	17
3. Digital Electronic Products	20	20	..
4. Industrial Electronic Products	125	45	80
5. Computer Peripherals	115	30	85
6. Cine Projectors	30	12	18
7. Radios	30	4	26
8. Counting Devices	150	100	50
9. Aluminium Electrolytic Capacitors	580	540	40
10. Piezo—Electric Crystals	60	60	..
11. Colour T.V. Relay Line	61	60	1
12. Carbon Film Resistors	45	15	30
13. Ceramic Capacitors	60	58	2
14. Thermistors and Varistors	10	5	5
15. Ferrites	15	14	1
16. Power Transistors	135	71	64
17. Power Rectifiers and Diodes	125	20	105
Total	1643	1119	524

6.38 The project cost of all the schemes undertaken by the Kerala State Electronics Development Corporation and its associate companies is Rs. 1643 lakhs. Of this an amount of Rs. 1119 lakhs has already been invested up to 31-3-1978, leaving a balance of Rs. 524 lakhs to be invested.

6.39 The Kerala State Electronics Development Corporation gives direct employment to 910 persons. The associate/subsidiary companies of the Corporation provides employment to 430 persons in the component sector and 455 persons in the equipment sector. Thus on the whole the Corporation along with its associate/subsidiary companies provides employment to 1795 persons. The employment potential will increase substantially when all the manufacturing units reach their optimum level of production.

6.40 Table 6.6 gives a comparative study of the electronic production in Kerala (including the private and semi-Government sectors) against the total electronic production in the country.

TABLE 6.6
Comparative Share of Kerala in All India Electronic
Production
(Rs. in crores)

Year	Total Production in India	Production in Kerala	Percentage share of Kerala
(1)	(2)	(3)	(4)
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

6.41 The value of production of electronic goods in Kerala in 1971-72 represented only 0.25 per cent of the total electronic production in India. This has at present reached the level of 2.05 per cent. Though the contribution of the State to the national electronic production was growing during the last few years, Kerala's contribution of about 2 per cent of the total production is not encouraging. There are two major

contributory reasons for this. First, the electronic industry in Kerala is of recent origin. Second, most of the projects envisaged by various agencies including the Kerala State Electronics Development Corporation are yet to reach their optimum level or have only just started production. When all these projects commence production, the percentage contribution compared to India as a whole will go up.

Kerala State Textile Corporation

6.42 The growth of cotton textile industry in Kerala has not been impressive. The State has only 26 mills as against 272 mills in South India and 637 mills in India as a whole. The Kerala mills have 4.94 lakh spindles and 1136 looms while the corresponding figures for all India are 197.01 lakh spindles and 2.07 lakh looms and for South India 67.94 lakh spindles and 20,770 looms. Kerala provides employment to only about 1.5 per cent of the total textile workers of India. Kerala's position in textile industry compared to South India and India as a whole is presented in Table 6.7.

TABLE 6.7
Position of Textile Industry in Kerala as on 1st January 1978

Item	All India				South India				Kerala			
	No. of mills	Spindles installed (in thou- sands)	Looms installed*	Employ- ment**	No. of mills	Spindles installed (in thou- sands)	Looms installed*	Employ- ment**	No. of mills	Spindles installed (in thou- sands)	Looms installed*	Employ- ment**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Spinning	347	7404.39	..	..	225	4830.27	..	..	21	409.44	..	..
Composite	290	12296.41	207066	..	47	1963.41	20770	..	5	85.02	1136	..
Total	637	19700.89	207066	10,27,994	272	6793.68	20770	2,26,195	26	494.46	1136	16,743

* Includes automatic looms also.

** As on January 1977.

Note: South India includes Andhra Pradesh, Karnataka, Pondicherry, Tamil Nadu and Kerala.

Source: Office of the Textile Commissioner, Bombay.

6.43 The year 1977-78 was a successful one for the Indian Cotton Textile Industry. The major contributory factors for this were the comfortable raw material position, better demand for yarn and cloth and the policy decision of the Government of India to allow duty-free import of polyester under Open General Licence. This encouraging trend in the industry had its impact in Kerala also. However, certain units in Kerala continued to face serious problems due to indefinite closure which prompted the Government to take certain ameliorative measures. Accordingly the Kerala State Textile Corporation which was dormant and on the verge of liquidation consequent on the transfer of textile

mills under its management to the National Textile Corporation, was revived in July 1977. The Corporation initially restarted its work by taking over the management of the Trivandrum Spinning and Weaving Mills in August 1977. Subsequently three more mills, the Malabar Spinning and Weaving Mill, Kozhikode, Kottayam Textiles Ltd., Kottayam and Prabhuram Mills Ltd., Chenganoor came under the control of the Corporation in March 1978, under the Industries Development Regulation Act of 1951. These mills have been reopened and they have started production. The Kerala Textile Corporation has also drawn up a plan for the modernisation of these mills.

The Trivandrum Spinning Mills has nearly completed its modernisation programme. The development programmes in other mills are expected to be implemented within an year.

Kerala State Industrial Products Trading Corporation

6.44 The Kerala State Industrial Products Trading Corporation was formed in 1976-77 for the procurement and sale of monopoly products of Government Companies such as titanium dioxide, ilmenite, plywood and white cement. The Company Law Board has also approved the Corporation as a selling agency. But due to certain procedural and technical hitches the trade agreements with Travancore Titanium Products and certain other companies have not come through. Meanwhile the Corporation took over the sale of white cement of Travancore Cements Limited. It purchased and sold 49 tonnes of white cement during 1977-78. The Corporation is actively exploring the possibilities of taking up other products also from the public sector. During the year 1977-78 the Corporation sustained a net loss of Rs. 0.92 lakhs, which was mainly due to its insignificant trade activities.

Government of India Concerns

6.45 The Government of India Companies functioning in Kerala are :—

- 1 Fertilisers and Chemicals Travancore Ltd., Alwaye.
- 2 Cochin Refineries, Ambalamugal.
- 3 Hindustan Insecticides, Alwaye.
- 4 Hindustan Machine Tools, Kalamassery.
- 5 Hindustan Latex, Trivandrum.
- 6 Indian Rare Earths, Alwaye.
- 7 Instrumentation Limited, Palghat.
- 8 Modern Bakeries (India) Limited, Edapally.
- 9 Indian Telephone Industries, Pudussery.
- 10 Cochin Shipyard, Cochin.
- 11 Kerala Newsprint Project, Velloor, Kottayam.

6.46 The Fertilizers and Chemicals, Travancore Limited witnessed all round progress in production as well as sales which reached new heights during 1977-78. The production of fertilizers in terms of the nutrient nitrogen recorded an increase of over 12 per cent, from 119,230 tonnes in 1976-77 to 133,655 tonnes in 1977-78 and production in terms of phosphorous pentoxide increased with the commissioning of Cochin Phase II Plant by 120 per cent from 25,435 tonnes in 1976-77 to 55,934 tonnes in 1977-78. Owing to the imbalance in the debt-equity ratio of the Company which resulted in increased borrowings, the Government of India restructured the capital base of the Company according to which all plant loans outstanding as on 31-3-1977 were converted into equity capital. Thus the paid up capital of the Company increased from Rs. 7401.95 lakhs in 1976-77 to 11,881.20 lakhs in

1977-78. The Central Government also provided more relief to the company by converting the non-plan loans outstanding as on 31-3-1977 into a new non-plan loan repayable in ten years after a moratorium of two years and by an upward revision of the retention price of urea and ammonium sulphate. In spite of the above reliefs, the operations of the Company during 1977-78 led to a net loss of Rs. 886 lakhs. This, however, has to be compared with a loss of Rs. 1396 lakhs in 1976-77. The Company provides employment to over 7000 persons.

6.47 The Cochin Refineries has changed the period of financial year to April-March from the September-August period followed previously. It earned a net profit of Rs. 107.63 lakhs for the seven month period ended 31st March 1978 as against Rs. 187.96 lakhs in the previous full reporting year. The Government of India continued to arrange supply of crude oil for the Refinery. The Company also received Bombay High Crude of about 60,000 tonnes during the period September-March 1978.

6.48 During 1977-78 the working of the Hindustan Insecticides Ltd. was affected by low production of technical D.D.T./B.H.C. due to power interruptions, failure of chlorine supply and labour troubles. This company which used to make substantial profits during the previous years incurred a loss of Rs. 0.29 lakhs during 1977-78. The Hindustan Latex Ltd., produced 162.78 million pieces of saleable 'Nirodhs' and 3560 numbers of saleable 875 gram meteorological balloons. The sales turnover of the Company during the year was of the order of Rs. 249.40 lakhs. There was a net profit of Rs. 14.24 lakhs in 1977-78 for the Company as against a profit of Rs. 19.25 lakhs in 1976-77.

6.49 The production in the Minerals Division of the Indian Rare Earths during 1977-78 was adversely affected by the non-availability of good quality raw sand and by the strike and picketing by the mining workers employed by the contractors. The shortage of monazite affected the production of the Rare Earths Division, resulting in lesser utilisation of production capacity which not only affected the sales turn over, but also reflected in the increased unit cost of the product. In spite of the above difficulties, the Company was able to obtain a net profit of Rs. 93.70 lakhs on a sales turnover of Rs. 858.90 lakhs during 1977-78 as against the net profit of Rs. 151.20 lakhs on a sales turnover of Rs. 928.03 lakhs in the previous year.

6.50 Labour strikes and resultant loss of production for more than 120 days in the Cochin Unit of Modern Bakeries (India) Ltd., not only affected the working of the Company, but also brought about considerable hardship to the consuming public. In 1977-78 the value of production of the Company fell to Rs. 97 lakhs from Rs. 140 lakhs

in 1976-77. This also resulted in a drastic reduction in the profit of the Company. The Company could obtain a net profit of Rs. 3.45 lakhs only in 1977-78 as against Rs. 23.30 lakhs in the previous year. 1977-78 was a successful year for the Palghat unit of the Instrumentation Ltd., which showed substantial improvement both in production and sales. This unit earned a gross profit of Rs. 70.90 lakhs during 1977-78.

6.51 Data relating to paid up capital, workers employed, sales, production, financial results, capacity utilisation etc., of the Government of India concerns functioning in Kerala are given in Appendix 6.6 and 6.7.

6.52 The Cochin Shipyard and the Kerala Newsprint Project are at different stages of implementation at the end of 1977-78. The progress achieved by those projects in 1977-78 is indicated below:

6.53 The Cochin Shipyard has completed all civil engineering works included in the Project report, except the repair dock, and installed all machinery and equipment except the 150 T Gantry Crane. Fabrication assembly of the first ship "Rani Padmini" is almost over and the Company has simultaneously started the work of the second ship, and 2000 BHP harbour tug for the Company's own use. Though the repair dock is expected to be completed by the middle of 1979, and commissioned for commercial use by the end of 1979, the Shipyard has already entered the field of ship repair activities by taking up repair works which can be carried out on stream, or by shifting the parts to the Company's workshop and refitting while the vessel is in the harbour. The total strength of personnel including officers, apprentices etc., was 2107 at the close of the financial year 1977-78 as against 1340 at the end of 1976-77. The total investment in the project by the end of March 1979 will be about Rs. 94 crores.

6.54 Civil works relating to the Kerala Newsprint Project which are estimated to cost about Rs. 100 crores were started at Velloor in 1974. The capacity of the factory is 300 tonnes of newsprint per day. It was scheduled to commence newsprint production by October 1978. But this schedule was upset by the intermittent labour troubles. These labour troubles not only delayed the construction of factory buildings but also installation of machinery. Now the construction of factory buildings is almost complete and installation of machinery begun. But the latest agitation demanding bonus for workers has again paralysed the work relating to the project. If this situation continues, production can be expected to commence only by the middle of 1980. This factory, on completion, will help to save foreign exchange worth about Rs. 25 crores per year on import of newsprints, provide direct employment to 1890 workers, and indirect employment to thousands of

workers in the collection and transport of about 100 lorry loads of raw materials per day. Hence expeditious completion of the project is of vital importance to the State's economy.

6.55 Investment in Central Sector undertakings in Kerala continues to be unsatisfactory. However, the value of property under Central Sector concerns in Kerala increased by Rs. 27.3 crores in 1976-77. The percentage share of the investment in Kerala to the total investment in all the States decreased to 2.39 per cent in 1976-77 from 2.70 per cent in 1975-76. The investment in Kerala as on 31-3-1977 was Rs. 274.1 crores. Table 6.8 gives the value of property under Central Government concerns in different States for the years 1975-76 and 1976-77 as also the percentage share of States to total investment.

TABLE 6.8

State-wise Value of Property (Gross Block) under Central Public Sector Units

(Rs. in crores)

State	As on 31st March 1976		As on 31st March 1977	
	Value of property	Percentage	Value of property	Percentage
(1)	(2)	(3)	(4)	(5)
1. Andhra Pradesh	310.9	3.38	390.7	3.41
2. Assam	271.9	2.96	312.9	2.72
3. Bihar	1882.8	20.64	2509.1	21.91
4. Delhi	278.9	3.00	409.7	3.59
5. Gujarat	432.5	4.72	529.4	4.57
6. Haryana	51.6	0.55	142.7	1.25
7. Himachal Pradesh	4.2	0.44	11.8	0.10
8. Karnataka	212.0	2.31	288.2	2.54
9. Kerala	246.8	2.70	274.1	2.39
10. Madhya Pradesh	1366.3	14.97	1492.7	13.04
11. Maharashtra	371.5	4.06	480.3	4.19
12. Orissa	619.6	6.77	646.5	5.66
13. Punjab	165.2	1.79	197.8	1.73
14. Rajasthan	187.7	2.04	227.1	1.98
15. Tamil Nadu	498.6	5.45	466.9	4.08
16. Uttar Pradesh	905.6	9.92	976.2	8.56
17. West Bengal	566.0	6.19	768.3	6.71
18. Jammu & Kashmir	7.2	0.07	5.7	0.05
19. Union Territories (excluding Delhi)	11.8	0.12	67.9	0.59
20. Goa	2.9	0.03	3.3	0.03
21. Unallotted and others	1322.3	14.49	1734.9	15.15
Total	9112.3	100.00	13441.2	100.00

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

Traditional Industries

(a) Coir Industry

6.56 The State's Coir Development Scheme is mainly aimed at organisation of coir workers into co-operatives so as to ensure reasonable wages to the workers and streamline production and marketing including export. Prior to the introduction of Coir Development Scheme the Coir Societies were service type organisations helping members to procure raw materials and acting as commission agents for marketing their products. The members of the societies could not therefore get much benefit out of the activities of the societies. Hence a programme of restructuring of coir co-operatives was undertaken since 1974-75. Under this programme the societies were being organised into production-cum-sale societies.

6.57 At present the coir societies in the State undertake production on their own, pays wages to the workers and market the products. The societies are being reorganised so that its members are predominantly the workers themselves. This involves the removal of sympathisers in excess of the permissible minimum. The committee of management of the societies is reconstituted giving majority to workers for safeguarding workers' interests. At present the following types of coir societies are functioning in the State (Table 6.9).

TABLE 6.9
Coir Societies in the State

Societies	Viabile	Potentially viable	Total
(1)	(2)	(3)	(4)
1. Primary Societies in the Spinning Sector	102	252	354
2. Mats and Matting Societies	5	8	13
3. Central Coir Marketing Societies	3	1	4
4. Husk Procurement and Distribution Societies	..	3	3
Total	110	264	374

6.58 As on 31-3-1978, the primary societies in the spinning-sector covered 1,56,268 members, the manufacturing societies 1,689 workers and the Central marketing societies 535 workers, compared to the large majority of workers outside the cooperative fold, the coverage achieved so far is rather small. The progress made by the primary societies, the manufacturing societies and the central marketing societies during the last few years can be judged from Tables 6.10, 6.11 and 6.12.

TABLE 6.10
Primary Societies

Year	No. of societies	No. of members	Husks purchased		Yarn purchased		Wages paid	
			No. in lakhs	Value (Rs. lakhs)	Quintals	Value (Rs. lakhs)	No. of workers	Amount paid (lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
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 (1-7-1977 to 31-3-1978)	354	156268	739.38	49.50	99334	260.19	55892	160.06

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)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1974-75	11	1514	95.88	N.A.	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	1689	95.84	1125	20.81	41.11

TABLE 6.12
Central Marketing Societies

Year	No. of Societies	No. of Members	Purchase Value (Rs. lakhs)	Sales (Rs. lakhs)		
				Inland	Export	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
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	535	284.47	238.05	21.92	259.97

6.59 The co-operative sector has to be considerably expanded for effectively controlling the market, and avoiding violent price fluctuations. As the co-operatives have started giving reasonable wages, the private producers are also forced to pay higher wages to the workers. A study conducted by the Institute of Applied Manpower Research, New Delhi, on the wage level of coir workers engaged in different processes at different centres of the State proves this point. The wage level of workers both in the cooperative sector and private sector as obtained from this study is given in Appendix 6.8.

6.60 The various controls that are being enforced by the Coir Directorate facilitate the availability of husk and fibre at reasonable prices to the societies. These controls have created a situation which ensures equitable distribution of husk and fibre to the cooperatives. The Coconut Husk Control Order 1973, the Kerala Coconut Husks and Fibre (Regulation of Movement) Order 1975, Coconut Husk and Coir Fibre (Export Control) Order 1974 and the Kerala Coir Products (Price Fixation) Order 1975 are the regulations now in force. There are however complaints that the Cooperative Societies are not obtaining adequate quantity of husks for providing employment to the worker-members all round the year. The availability of raw husks at the retting centres has fallen sharply. This is attributed to the fixation of uneconomic price for husks at certain centres. Hence in order to make available raw husk in sufficient quantities at the retting site, it may be necessary to revise the price of husks after taking into consideration the general increase in transportation costs, and the price of firewood (in the absence of which husks are used as a substitute for fuel). 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.

6.61 The Coir Development Programme also contemplates a progressive changeover to institutional finance from the present dependence on budgetary finance. Out of the 254 societies so far assisted under the programme,

91 primary societies, 17 newly registered primary societies, 4 marketing societies and 8 manufacturing societies are now resorting to institutional finance. A total of Rs. 296.44 lakhs has been sanctioned to these societies as institutional finance.

6.62 The collection of statistics of production of coir and coir goods is rendered difficult because coir industry is a cottage industry spread over the entire coastal belt of Kerala. However based on available statistical information the production is estimated as follows: (Table 6.13)

TABLE 6.13
Production of Coir and Coir Goods

Item	Production in tonnes during		
	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)
Coir Fibre	1,55,000	1,60,000	1,60,000
Coir Yarn	1,28,000	1,28,000	1,19,880
Coir Products	23,800	29,000	24,500
Coir Rope	11,400	17,000	17,000
Curled Coir	2,500	3,000	2,500
Rubberised Coir	1,000	1,000	600

6.63 As coir yarn, coir products, coir rope, curled coir and rubberised coir are processed or manufactured from coir fibre the above figures are mutually inclusive and they should not be added to get the total production.

6.64 Coir has long been a traditional export-oriented commodity of Kerala. Even now foreign markets remain the mainstay for coir and coir goods. India and Sri Lanka are the major coir producers and exporters of coir and coir goods. Export of coir from Sri Lanka is confined mainly to bristle and mattress varieties of fibre. India has a virtual monopoly in the supply of spun yarn and manufactured products to the world market. The export of coir and coir goods has however been steadily going down during the last decade or more. It has been declining in terms of

quantity though in terms of money value it has been on the increase on account of the higher unit value realised. This declining trend in coir exports was reversed in 1976-77, but again in the subsequent year 1977-78,

the export declined. In 1977-78 the export was to the tune of 42121 tonnes worth Rs. 2379.63 lakhs. Table 6.14 gives the data relating the export of coir and coir products from India during the last three years.

TABLE 6.14
Export of Coir and Coir Products

Item	1975-76		1976-77		1977-78	
	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coir Fibre	266	6.94	134	2.88	46	1.29
Coir Yarn	22970	1002.19	26567	1052.32	22639	910.89
Coir Mats	7488	562.48	9582	735.18	10748	829.13
Coir Mattings, Rugs, Carpets etc.	5276	337.12	7020	462.00	7969	621.20
Coir Rope	269	6.70	185	5.42	160	4.75
Curled coir	1014	19.52	868	19.48	556	11.83
Rubberised Coir Goods	1	0.25	1	0.27	3	0.54
Total:	37284	1935.20	44357	2277.55	42121	2379.63

6.65 Though the export in 1977-78, as compared to the previous year has declined by 2236 tonnes in terms of quantity, in terms of value realised there was an increase of about Rs. 102.08 lakhs. The export of coir yarn, the semi-finished raw materials, which is further processed to make finished goods, continued to form the major item in export but it declined considerably during the year. A welcome trend discernible in the export pattern of coir goods in 1977-78 is the increase in the export of manufactured goods like mats, mattings, rugs, carpets, etc. which fetched not only higher unit value but also provided greater employment to coir workers.

Kerala State Coir Corporation

6.66 The Kerala State Coir Corporation continued its efforts in stabilising the coir industry by giving business support to a large number of workers in the manufacturing sector and also by functioning as an export house for coir and coir products. About two thousand small scale producers of Alleppey, Quilon and Trivandrum districts have registered themselves with the Corporation. Assuming on an average five workers per unit, the total number of workers in these units can be reckoned at ten thousand.

6.67 The sales turnover of the Corporation which has been increasing over the years experienced a decline in 1977-78. The turnover for the year has decreased from Rs. 133 lakhs in 1976-77 to Rs. 95 lakhs in 1977-78. This fall in the turnover had its reflection in the export of coir products also. The Corporation exported coir

products worth Rs. 77.18 lakhs only during 1977-78 as against Rs. 114 lakhs in 1976-77. There was a reduction in internal sales also. For increasing internal sales, the Corporation has drawn up plans for opening show rooms at various State capitals. However owing to various reasons no new showrooms could be opened during the year 1977-78. The sales in the Corporation's existing show rooms at Delhi, Calcutta and Ahmedabad were quite encouraging.

6.68 The paid up capital of the Corporation stood at Rs. 90 lakhs. It has availed loan facilities from the State Government and financial institutions for its activities. The working results of the Corporation during 1977-78 are satisfactory and it expects a reasonable profit.

6.69 With the twin objects of improving the colour and quality of coir products as well as its diversification the Corporation has initiated certain schemes like the installation of a foam matting plant and a modern dye house. The erection of machinery for the Rs.175 lakh foam matting plant to produce rubber-backed coir mattings is almost over, and the unit is expected to start production shortly. The Corporation has also initiated action to start a modern dye house for improving the dyeing techniques of coir products. All preliminary formalities for this unit are over and construction of factory buildings will be started soon.

6.70 The Corporation is also running the model coir factory at Bepore. Besides the manufacture of mats and mattings, a decibering plant was installed in

the unit for extracting fibre from dry husks. This unit produced 117 tonnes of fibre during 1977-78. The Corporation has also a proposal to expand the Beypore unit by installing decorticated and curled fibre sections.

(b) *Cashew Industry*

6.71 The economy of Central Travancore depends to a great extent on cashew industry which is highly labour intensive. The continued glut in the industry has created socio-economic problems in the region. Certain measures undertaken by the Government to resurrect the industry did not have the desired results.

6.72 The cashew workers are not getting employment throughout the year due to the non-availability of adequate quantity of raw nuts. The Cashew Development Corporation of Kerala, a premier institution in this field, manages 34 cashew factories. It could provide employment only for 98 days to the workers in 1978. The internal production of raw nuts is around one lakh tonnes, but this is adequate enough to provide employment to cashew workers for only less than three months. Nearly two-thirds of the total requirement of raw nuts for the industry were being imported from African countries. These raw nut producing countries have themselves built up cashew processing units. This has contributed to the steady decline of imports. Consequent on the fixation of minimum wages in cashew industry and enactment of certain ameliorative labour laws, there is a tendency for the shifting of factories to the neighbouring States. Efforts to fix a national or regional minimum wage in the industry have not yet been successful. Fluctuations in the international market for raw cashew nuts and kernels, severe competition among the home manufacturers on the one hand and the non cooperative attitude towards Government interference in the industry has threatened the very stability of the industry in the home market. The industry is heavily dependent on raw nut imports from the East African countries of Tanzania, Mosambique and Kenya. The import of raw nuts from these countries during 1977-78 was only 59581 tonnes valued at Rs. 1941.70 lakhs. The data relating to import of raw nuts is shown in Table 6.15 and 6.16.

TABLE 6.15
Country-wise Import of Raw Nuts during 1977-78

Country	Quantity Imported (in tonnes)	Value (Rs. in lakhs)
(1)	(2)	(3)
Tanzania	57845	1888.63
Kenya	1100	30.99
Madagascar	636	21.08
Total	59581	1940.70

Rawnut import which stood at 1,69,359 tonnes in 1970-71 has gradually dwindled and reached the all time low of 59,581 tonnes in 1977-78.

TABLE 6.16
Import of Raw Nuts during 1970-71 to 1977-78

Year	Import (in tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)
1970-71	169359	2940.76
1974-75	160885	3660.43
1975-76	137196	3355.78
1976-77	71858	1734.85
1977-78	59581	1940.70

6.73 The export of cashew products during 1977-78 was considerably low compared to the previous year. In 1977-78 India exported 39511 tonnes of cashew kernels valued at Rs. 14757.37 lakhs and 2597 tonnes of cashew shell liquid valued at Rs. 105.76 lakhs. The comparative figures for the previous year were 51,338 tonnes of kernels valued at Rs. 10614.64 lakhs and 4838 tonnes of cashew shell liquid valued at Rs. 107.69 lakhs. Thus altogether India exported cashew products worth Rs. 14863.13 lakhs in 1977-78, as against Rs. 10722.33 lakhs in the previous year. In terms of quantity the export of kernels as well as cashew shell liquid registered a fall during 1977-78. But owing to the higher unit value of the products, the export value realised was higher. After deducting the cost of the import of raw nuts which was Rs. 1940.70 lakhs the net foreign exchange earned from cashew industry during 1977-78 was worth Rs. 12922.43 lakhs, as against Rs. 8982.48 lakhs in 1976-77.

6.74 The arrangements made by the State Government for the procurement and distribution of indigenous raw nuts continued to operate during 1977-78 also. According to these arrangements the Kerala State Co-operative Marketing Federation is the agency for monopoly purchase of raw cashew nuts. The Federation through its thousand and odd village level co-operative societies procured 79,263 tonnes of raw nuts during the 1978 cashew season, as against 68,191 tonnes during the previous season. The Federation sold 66,465 tonnes of raw nuts to the processing units during the 1978 season. In the previous year the quantity sold was only 62,305 tonnes. Table 6.17 shows the district-wise

TABLE 6.17
District-wise Procurement and Distribution of Raw Nuts (in tonnes)

District	Quantity Procured		Quantity Sold	
	1977 Season	1978 Season	1977 Season	1978 Season
(1)	(2)	(3)	(4)	(5)
Cannanore	22550	29446	21364	22955
Kozhikode	3990	4599	3676	3734
Malappuram	9374	9409	8640	8707
Palghat	3258	4064	3007	3732
Trichur	6647	6189	6122	5733
Ernakulam	3143	5081	2880	3924
Idukki	1128		1037	
Alleppey	2193	1931	1967	1745
Kottayam	1529	1420	1403	1321
Quilon	10885	12384	9305	10709
Trivandrum	3492	4740	2904	3885
Total	68191	79263	62305	66465

procurement and distribution of raw nuts by the Marketing Federation during the 1977 and 1978 cashew seasons.

6.75 The procurement prices of raw nuts were revised twice on 16-2-1978 and 22-2-1978, and the prices ranged from Rs. 570 to Rs. 610 per quintal. But consequent on the decline in the price of kernels and raw nuts in the international market, the procurement price was refixed on 22-5-1978 according to which the rates declined to a price range between Rs. 370 and Rs. 410 per quintal. The selling price of raw nuts to the manufacturers ranged from Rs. 683 to Rs. 698 per quintal depending on the quality of nuts available at different districts. The procurement rates and selling price of raw nuts at different centres for the 1978 season is given in Table 6.18

TABLE 6.18
Procurement Rates and Selling Price of Raw Nuts
(Rs. per quintal)

Centre	Procurement Rates as per		Selling rates as per Notifi- cation of 1-3-1978
	Notification of 16-2-1978 & 22-2-1978	Notification of 22-5-1978	
(1)	(2)	(3)	(4)
Trivandrum	570	370	683
Quilon	580	380	694
Kottayam	580	380	687
Alleppey	570	370	683
Idukki	580	380	679
Ernakulam	580	580	679
Trichur	590	390	698
Malappuram	590	390	691
Puduchot	590	390	698
Kozhikode	590	390	691
Cananore	610	410	698

6.76 The private processors failed to lift their quota of internally collected raw nuts, as they considered that the price fixed for local raw nuts has no parity with the prevailing price of cashew kernels in the international market. As a result the Government had to take over 99 private factories provisionally and entrust the same to the Kerala State Cashew Development Corporation to process the nuts procured internally. These private factories employing more than 70,000 workers were run provisionally by the Corporation till the end of December 1978, utilising the local raw nuts.

6.77 The Plantation Corporation of Kerala which is the major producer of rubber in the public sector is at present concentrating its efforts on cashew cultivation. The State Government has entrusted cultivation of cashew on a large scale to the Corporation to meet the growing deficit of raw nuts in the State. The Government has also handed over the cashew estate at

Kasargode extending over 2320 hectares to the Corporation. Under the initiative of the Corporation about 1220 hectares were planted with cashew in 1977-78 (378 hectares in area unsuitable for rubber cultivation in the existing rubber estates and 842 hectares at Cheemani and Rajapuram where new areas are allotted by the Government). At the end of March 1978, the total area under cashew owned by the Plantation Corporation of Kerala was 4020 hectares. The Corporation has also drawn up a massive scheme to bring an additional area of 12000 hectares under cashew. The project which is to be implemented with the assistance of the Cashew Corporation of India and World Bank, is expected to cost Rs. 831 lakhs.

Kerala State Cashew Development Corporation

6.78 The Kerala State Cashew Development Corporation as pointed out earlier, manages 34 cashew factories. These units provide employment to 34,665 persons. In spite of the comparative low receipt of African raw nuts, the Corporation was able to work for 98 days during 1977-78, because the procurement and distribution policy adopted by the State Government enabled the Corporation obtain a fair supply of indigenous raw nuts. The Corporation processed 28,414 tonnes of raw nuts during 1977-78 of which 10,487 tonnes were African nuts and 17,927 tonnes locally procured raw nuts. The increasing share of local raw nuts in the processing activities of the Corporation is revealed in Table 6.19.

TABLE 6.19
Cashew Processing—Kerala Cashew Development Corporation

Year	Raw nuts processed (in tonnes)		
	Imported	Local	Total
(1)	(2)	(3)	(4)
1974-75	31,479	7960	39439
1975-76	28,222	13704	41926
1976-77	13,654	7522	21176
1977-78	10,487	17927	28414

6.79 The sales turn over of the Corporation was Rs. 2389.67 lakhs of which Rs. 2313.42 lakhs was from exports alone.

6.80 The paid up capital of the Corporation remained at Rs. 119 lakhs. The outstanding loan liability of the Corporation towards government is Rs. 15.81 lakhs, and towards financial institutions Rs. 127.13 lakhs as on 31-3-1978. The estimated profit of the Corporation for the year 1977-78 is around Rs. 14 lakhs.

6.81 The price of kernels in the world market witnessed unprecedented rise towards the latter part of

1977, but it began to decline by the beginning of 1978. In view of the declining off take and price of kernels in the world market, the private processors did not lift their quota of raw nuts on the plea that the price of local raw nuts fixed by Government has no parity. Most of the processors closed down their factories. Hence the Government was forced to take certain measures. The Government, as a temporary measure, took over 99 factories and entrusted them with the Corporation for running them by making use of the locally collected raw nuts. These factories employing about 70,000 persons were managed by the Corporation till the end of December 1978. The factories have since then handed back to the owners.

(c) Handloom Industry

6.82 The handloom industry in Kerala is predominantly a cottage industry. 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 over 2000 small factory type establishments in the State. While the weaving of export varieties is a speciality in the northern districts of Cannanore and Kozhikode, the fine varieties for domestic consumption are mainly produced in Trivandrum, Quilon and Ernakulam districts.

6.83 According to the Handloom Census of 1976 the total number of looms in the State stood at 90,030. But since then the number increased considerably and by the end of the year 1978 there were 94,750 looms in the State. Nearly 81 per cent of the looms are in working condition. Nearly 29 per cent of the idle looms are damaged beyond repair.

6.84 In 1976, 22,548 looms were in the cooperative sector. The Sivaraman Committee recommended that 60 per cent of the total number of handlooms should be brought under the co-operative fold. On the basis of this recommendation which was accepted by both the Central and State Governments effective steps were taken in Kerala for bringing 36,000 looms additionally into the co-operative fold by the end of 1979-80. By the end of 1978, 11,560 looms were additionally brought under co-operative fold thereby raising the total number of looms under the co-operative sector to 34,108. At present there are 488 weavers' co-operative societies in the State of which 310 are working societies. The State Government in 1977-78 gave an amount of Rs. 36.50 lakhs to the Primary Weavers' Co-operative Societies, and Rs. 20 lakhs to the Kerala Handloom Weavers' Apex Society towards share participation. This step has enhanced the credit-worthiness of the societies as also the cash credit limit sanctioned to them by the Reserve Bank of India. The cash credit limit of the primary societies rose from Rs. 110.86 lakhs in 1976-77 to Rs. 319.23 lakhs in 1978-79, while the

corresponding increase for the Apex Society was from Rs. 75 lakhs to Rs. 125 lakhs. This improvement in the working capital position of the societies will help to boost its productive activities in the coming years.

6.85 Production in the handloom sector declined considerably in 1977-78 compared to the previous year. In the co-operative sector the production declined to 193 lakh metres in 1977-78 from 219 lakh metres in the previous year. The production of handloom cloth outside the co-operative sector also decreased to 594 lakh metres in 1977-78 from 650 lakh metres in 1976-77. The export of handloom fabrics and ready made garments from Kerala also decreased considerably during 1977-78. Out of the 42 Kerala firms registered with the Handloom Export Promotion Council, Madras, only 11 firms exported during the year. They exported fabrics and ready made garments valued at Rs. 204 lakhs in 1977-78 against Rs. 268 lakhs during the previous year.

6.86 As a major portion of the total production of handloom fabrics of Kerala reach the consumers outside the State (including foreign countries) the level of employment and the income of the individuals engaged in the industry are mostly determined by extraneous factors like changing fashions and tastes of consumers, emergence of new competitors, trade policies of different nations and mechanised production of fabrics made of close substitutes. Hence in order to ensure stability in this industry it is essential to build up a steady and expanding local market. The local market at present is built up with the aid of various incentives like rebate, credit sales etc. for the intake of handloom goods. During the year 1977-78 the Government spent about Rs. 60.3 lakhs towards subsidy for the rebate on sale of handloom cloth. Production of different varieties of handloom cloth of different designs and patterns to suit the tastes and needs of different sections of the consumers, and checking the cost of production without adversely affecting the wages of weavers can enable the retention of the local market even without special incentives. Modernisation of looms, 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.

6.87 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. This scheme is being implemented through the Handloom Finance and Trading Corporation, Cannanore.

6.88 The Intensive Development Project for handloom at Trivandrum started functioning in May 1977. Out of the total outlay of Rs. 185 lakhs for the project only an amount of Rs. 50.62 lakhs was released till March 1978 by the Government of India. The project, during 1977-78, identified and organised production in 395 looms, and procured handloom cloth worth Rs. 8.02 lakhs through its depots at Balaramapuram and Quilon. Six factory type industrial co-operative societies one each at Kulathoor, Attingal, Mangalathukonam, Kottapuram, Karin-gannoor and Karunagappally were organised and registered with 100 looms each. Of these six societies, three have already started production and the remaining three are under various stages of construction. Steps have also been taken to establish a common facility service centre under the project at Nemon in the premises of the Travancore Textiles Private Ltd.

6.89 The Intensive Development Project at Cannanore, covering the northern districts of Kerala, has also a total outlay of Rs. 185 lakhs. For this project, which started functioning in September, 1977, an expenditure of Rs. 20.65 lakhs was incurred till the end of March, 1978. The project identified 873 looms during 1977-78 for modernisation and registered seven societies with 100 looms each, out of the total twelve societies with 100 looms proposed during the four year project period ending with 1981-82. The societies already registered are at Chittoor in Palghat district, Kommery, Cheruvannur and Eramala in Kozhikode district and Muzhapala, Kannadiparambu and Kolathuvayal in Cannanore district. The project has started five centres at Payyannur, Chirakkal, Kuthuparambu, Quilandy and Pudunagaram to implement the differential rate of interest scheme. Each of the selected 261 weavers will receive Rs. 1500 from the State Bank of India. Construction of a modern factory building costing over Rs. 30 lakhs to house the Common Facility Service Centre is under construction. Pending completion of the Centre, a pilot dyehouse at Chirakkal to render various services to the weavers has been started under the Project.

6.90 The Export Production Project at Cannanore having a total outlay of Rs. 40 lakhs has incurred an expenditure of Rs. 20 lakhs up to the end of March, 1978. Under this Project five new societies with 100 looms each were registered at Kannapuram, Mayyil, Kottali, Pinarayi and Azhikkal. The existing five societies at Kasargode, Taliparamba, Cannanore, Kallissery and Morazha will be expanded further under this project.

The Kerala Handloom Finance and Trading Corporation.

6.91 The Kerala Handlooms Finance Trading Corporation continued its activities by assisting the handloom industry outside the co-operative sector, and by implementing the intensive development projects as an

agent of the Government. The Corporation provides continuous and gainful employment to about thousand and odd poor weavers through an investment of about Rs. 22 lakhs. It is also endeavouring to provide a direct link between the weavers and the markets, thus eliminating middlemen. The weavers are given proper designs, yarn, dyes etc. The offtake of their produce is also guaranteed by the Corporation.

6.92 The trading activities of the Corporation were adversely affected by the slump in the handloom industry. Added to this the huge amounts outstanding on account of the loans disbursed, and supply of yarn, dyes and fabrics on credit prompted the Corporation to stop disbursing cash loans and supply of yarn on credit basis to members. The Corporation participated in fairs/exhibitions held at Delhi, Trivandrum, Madras and Cannanore in 1977-78.

6.93 The paid up capital of the Corporation as on 31st March 1978, was Rs. 53.67 lakhs. During 1977-78 the Corporation received a short term loan of Rs. 85 lakhs from the Government to deal with the situation that arose out of the accumulation of unsold stocks. In spite of the continued glut in the handloom industry, the Corporation could earn a nominal net profit of Rs. 0.41 lakhs during 1977-78.

6.94 The Kerala Garments Ltd., a subsidiary company of the Corporation, incorporated with a paid up capital of Rs. 10 lakhs to implement and manage the garment manufacturing unit has been completed and commercial production has also commenced.

Small Scale Industries

6.95 (Though Kerala has a fair share of natural resources, infrastructure facilities, hydro-electric power, and banking institutions etc. the State is lagging behind many other States in industrial development. Development of industries of a small scale nature has a significant role in the State's industrial advance.) A wide range of small scale units has sprung up in the State recently, as a result of State-sponsorship through financial assistance, incentives, reservations etc., but the progress heretofore has not been adequate and problems such as acute unemployment and low per capita income still continue to defy solution.

6.96 The details relating to the registered small scale industrial units in the State are presented in Table 6.20. (Emphasis is being laid by the State in promoting small scale industries through the creation of "Mini Industrial Estates") (Such estates are to be set up in all the panchayats in the State numbering about 1000.) This programme together with other measures has helped to increase the number of small scale units registered with the Industries Department during the last few years. The number of newly registered units which was 1447

during 1975-76 increased to 1515 in 1976-77. But inspite of the efforts of the Government and the various institutions engaged in the promotion of small scale industries the number of newly registered units showed a decline (1172) during 1977-78. The total number of units registered with the Industries Department as on 31-3-1978 stood at 12,118.

TABLE 6.20

Registered Small Scale Industries

District	Registered during 1975-76	Registered during 1976-77	Registered during 1977-78	Total Registered units as on 31-3-1978
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	219	164	127	1583
2. Quilon	123	176	151	1381
3. Alleppey	139	168	143	1133
4. Kottayam	112	129	116	995
5. Idukki	44	39	34	174
6. Ernakulam	257	271	185	1967
7. Trichur	118	171	121	1389
8. Palghat	70	40	14	373
9. Malappuram	89	43	61	575
10. Kozhikode	136	166	124	1112
11. Cannanore	140	148	146	1496
Total	1447	1515	1172	12118

6.97 The Mini Industrial Estate programme, designed to provide opportunities for self employment to the educated youth of the State was continued during 1977-78 also. Under this programme construction of sheds for 106 mini industrial estates have been completed, and 508 small scale units commissioned. As the second phase of the programme, another series of 106 panchayats have been identified, out of which 24 sites where land is offered free by local panchayats have been approved for establishing the estates. The sites for the remaining estates will be finalised soon after a decision is taken regarding the purchase of land.

6.98 At present there are seven development plots in the State, out of which two are in Ernakulam District, and one each in Kozhikode, Alleppey, Kottayam, Quilon and Trivandrum Districts. The plots are now being allotted to industrialists on hire-purchase basis. It is also proposed to set up new development plots in Kottayam, Idukki, Trichur, Palghat, Malappuram and Cannanore Districts for which sites have already been identified.

6.99 At present there are four Rural Industries Projects functioning in the State. These projects continue to provide financial assistance to small scale units for construction of factory buildings and procurement of machinery. Medium scale units are also assisted by providing margin money to enable them obtain institutional finance. The programme is a centrally sponsored one, and the entire expenditure is met by the

Government of India. With the formation of the District Industries Centres, the existing Rural Industries Projects have been merged with the District Industries Centres.

6.100 Five districts of the State (Trivandrum, Alleppey, Trichur, Malappuram and Cannanore) have been declared as industrially backward. Certain concessions are offered by financial institutions to units set up in these districts. Three districts (Alleppey, Malappuram and Cannanore) have been declared as most backward. Industrial units set up in these districts are eligible to get a subsidy of 15 per cent of their capital investment under a Government of India scheme.

6.101 The revival of sick small scale units is being attended to by the Small Industries Development and Employment Corporation (SIDEKO) with the active participation of Industrial Reconstruction Corporation of India (IRCI).

6.102 In accordance with the revised industrial policy of the Government of India, it has been decided to set up District Industries Centres in all the districts of the State. The scheme will be financed by the Government of India. In the past there has been a tendency to proliferate schemes, agencies and organisations which has tended more to confuse the average small and rural entrepreneur than to encourage and help him. (In the new set up, under the single roof of the District Industries Centre, all the services and support required by the small and village entrepreneurs will be provided.) The focal point of development for small scale and cottage industries will be taken away from the cities and State capitals to the district headquarters. Thus in the District Industries Centres there will be an agency to deal with all the requirements of small and village industries. (These centres will undertake economic investigation of the potential for the development of the district, including its raw material and other resources, supply of machinery, provision of raw materials, effective arrangement of credit facilities, marketing assistance, quality control etc.) Institutions like the Khadi and Village Industries Board, Directorate of Handlooms, and Directorate of Handicrafts, which are involved in grass root activities wherever these programmes are functioning will work through the District Industries Centre set-up. The State Government have already initiated action for the setting up of District Industries Centre in all the eleven districts of the State.

6.103 For promoting the growth of small scale sector certain steps have been taken by the Central Government recently. Considerable increase in the number of items reserved for production in the small scale sector and provision of certain fiscal relief are among them. These measures along with the assistance rendered by the District Industries Centres, and other organisations/institutions engaged in the promotion

of small scale industries will improve the small scale sector in Kerala and thus generate more employment opportunities.

Small Industries Development and Employment Corporation (SIDECO).

6.104 SIDECO acts as a catalyst for promoting the development of small scale industries in the State. The major schemes operated by the Corporation are:—

1. Procurement of technical consultancy services in the form of feasibility studies and project reports on behalf of small scale entrepreneurs.
2. Construction of industrial estates for letting out on lease or hire purchase basis to small scale entrepreneurs.
3. Extension of financial assistance by way of margin money loans, and rehabilitation of selected small scale sick units.
4. Subscription to the share capital of companies
5. Supply of machinery on hire purchase.
6. Procurement and distribution of scarce raw materials to small scale units.
7. Management of conventional industrial estates.
8. Organising entrepreneur development and training programmes.

6.105 Apart from the operation of the above schemes, the Corporation has also taken up the distribution of imported and indigenous cement. In 1977-78 the Corporation sanctioned an amount of Rs. 12.66 lakhs to 54 small scale units by way of margin money and another amount of Rs. 4.48 lakhs to sick units as part of rehabilitation assistance. The assistance sanctioned to industrial enterprises promoted by women entrepreneurs during 1977-78 amounted to Rs. 1.80 lakhs. The Corporation also provided share capital assistance of Rs. 2.29 lakhs to small scale units during 1977-78. It is also actively associated with the New Industries Programme by providing infrastructure facilities to the mini industrial estates and also by arranging credit facilities—both short term and long term loans—to entrepreneurs promoted under this programme.

6.106 SIDECO also runs the following production service units:—

1. Government Instrument Workshop, Pappanamcode.
2. Pressure Die Casting Unit, Pappanamcode.
3. Kerala Water Proof Products, Pappanamcode
4. Straw Board Factory, Parumala.
5. Wood Workshop, Kollakadavu.
6. SIDECO Tools, Umayanalloor.
7. SIDECO Auto Engineering, Ernakulam.
8. Wood Workshop, Calicut.
9. Service Workshop, Ollur.
10. Ceramic Services Centre, Mangattuparamba.
11. Functional Industrial Estate.
12. Tile Factory, Amaravila.

6.107 The paid up capital of the Corporation as on 31-3-1978 stood at Rs. 375.36 lakhs fully subscribed by the Government. Besides the Corporation has received a loan of Rs. 165.75 lakhs from the Government. As a result of the working of the Corporation there was a net loss of Rs. 13.74 lakhs during the year 1977-78.

The Kerala Financial Corporation

6.108 The Kerala Financial Corporation received 617 applications for an aggregate amount of Rs. 991.86 lakhs during 1977-78 as against 969 applications for Rs. 1021.14 lakhs during the previous year. The increase in the number of applications during 1976-77 was due mainly to the spate of applications for loans by the power-loom units sponsored by the Cochin Textiles. The amount sanctioned by the Corporation increased from Rs. 652.11 lakhs (394 units) in 1976-77 to Rs. 850.04 lakhs (621 units) in 1977-78. The number of units for which assistance was actually provided by the Corporation increased from 302 in 1976-77 to 453 in 1977-78. However the amount disbursed recorded a marginal decrease to Rs. 521.49 lakhs from Rs. 537.30 lakhs in 1976-77. A comparative statement showing the loan transactions during the last three years is given in Table 6.21.

TABLE 6.21
Loan Transactions of Kerala Financial Corporation

Particulars	(Rs. in lakhs)					
	1975-76		1976-77		1977-78	
	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Applications Received	611	1208.71	969	1021.14	617	991.86
Applications Sanctioned	494	966.88	394	652.11	621	850.04
Amount Disbursed	405	504.13	302	537.30	454	521.49

6.109 Since its inception, the Corporation has received 4357 loan applications worth Rs. 8503.59 lakhs out of which 2953 applications for Rs. 5479.62 lakhs were sanctioned. The number of loans disbursed till 1977-78 is 2214 worth Rs. 3309.24 lakhs. The Corporation has all along been devoting special attention to the promotion of small scale industries.

Nearly two-thirds of the total assistance so far granted has gone to the small scale sector. So far 2023 units have been assisted to the extent of Rs. 2169.69 lakhs out of the total disbursement of Rs. 3309.24 lakhs as on 31-3-1978. A statement showing the cumulative figures of loan transactions of the Corporation till 31-3-1978 is furnished in Table 6.22.

TABLE 6.22
Loan Transactions (Cumulative Figures) of the Kerala Financial Corporation

Item	Small Scale		Others		Total	
	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Applications Received	4077	6305.64	280	2197.75	4357	8503.59
Effective Sanctions	2738	3874.28	215	1605.34	2953	5479.62
Amount Disbursed	2023	2169.69	191	1139.55	2214	3309.24

6.110 The Corporation had been granting loans upto Rs. 3 lakhs at a subsidised rate of interest of 5½ per cent per annum to small scale industries according to an agreement entered into with the State Government. As per the agreement the State Government has to re-imburse to the Corporation the subsidy portion of the interest. This interest subsidy to the Corporation got accumulated and as on 14-10-1977 an amount of Rs. 106.21 lakhs was due to the Corporation from Government. The Corporation after reviewing the situation decided to discontinue the scheme. Therefore loans are now granted at the normal lending rates irrespective of the amount involved. The Corporation discontinued the policy of rendering assistance to sea-food industries, soft-wood based industries and steel re-rolling mills for want of ready market for the products and/or shortage of raw material. But it continued to provide assistance under various other schemes like Foreign Exchange Credit Scheme, technocrat assistance scheme, seed capital scheme, credit guarantee scheme, rehabilitation of sick unit scheme, scheme of financing entrepreneurs belonging to Scheduled Castes and Scheduled Tribes etc.

6.111 The total cumulative amount that fell due for repayment upto 31-3-1978 was Rs. 2320.72 lakhs. The total cumulative amount recovered during the period against this is Rs. 1387.02 lakhs, the percentage of arrears to the total dues worked out to about 40 per cent compared to 37 per cent at the end of 1976-77. Defaults are noticed in almost every type of industry. In the case of transport loans the default continues to be relatively less and recovery is fairly satisfactory. Owing to the failure of small scale industries to draw the loans in time many of the projects have not come up according to schedule and this has

contributed to a large extent for the accumulation of arrears. Prolonged difficulty in getting adequate working capital from commercial banks has also been a major reason for many of the units not being able to reach the anticipated levels of production.

6.112 The main sources of funds for the Corporation were refinance from Industrial Development Bank of India (Rs. 384.96) and issue of bonds (Rs. 220 lakhs). The paid-up share capital increased from Rs. 219 lakhs in the previous year to Rs. 235 lakhs at the end of March 1978. The pattern of share holdings as on 31-3-1978 is as follows:—

	Rs.
Government of Kerala	127.91
Industrial Development Bank of India	82.50
Scheduled Banks, Insurance Companies, Co-operative Banks etc.	22.54
Other parties	2.05
Total	235.00

The Corporation earned a gross profit of Rs. 62.52 lakhs during 1977-78 as against Rs. 57.81 lakhs in the previous year. After providing Rs. 18.19 lakhs for taxation, the net profit works out to Rs. 44.33 lakhs, an increase of Rs. 7.42 lakhs over that of the previous year.

Khadi and Village Industries

6.113 The Kerala Khadi and Village Industries Board extended financial assistance to co-operative societies, institutions registered under Charitable

Societies Act, and individuals for the development of Khadi and the following village industries:—

1. Village oil industry
2. Village leather industry
3. Cottage match industry
4. Village pottery industry
5. Non-edible oil and soap industry
6. Gur Khandasari industry
7. Palmgur industry .
8. Fibre industry
9. Carpentry and blacksmithy industry
10. Lime manufacturing industry
11. Cane and bamboo industry
12. Gobar gas
13. Fruit processing and preservation industry
14. Processing of cereals and pulses.
15. Hand-made paper industry.
16. Bee keeping industry
17. Collection of forest plants and fruits for medicinal purposes.

6.114 Further, the Board manages and runs certain major production centres like the Payyannur Khadi Centre and also undertakes the marketing of Khadi and other village industries products, through its own sales depots in every district. The Kerala Sarvodaya Sangh, Kerala Gandhi Smaraka Nidhi, Kerala Khadi and Village Industries Association, Trichur, and the Valluvanad Development Society are the other

institutions functioning in the State for the development of khadi industry.

These institutions are however receiving financial assistance directly from the Khadi and Village Industries Commission.

6.115 The production and sale of khadi cloth during 1977-78 increased considerably compared to the previous year. Khadi worth Rs. 65 lakhs were produced by the units aided and managed by the Board as against the production of khadi worth Rs. 59.53 lakhs in the previous year. The sale value of khadi realised during the year was Rs. 80.78 lakhs, while it was only Rs. 72.38 lakhs in 1976-77. The production and sale of other village industries products amounted to Rs. 798.73 lakhs and Rs. 863.35 lakhs respectively (See Appendix 6.13).

6.116 The total number of full time workers engaged in Khadi and Village Industries in the State in 1977-78 was 67,089 which shows a marginal increase of 3832 workers over that of the previous year. In addition to the full time-workers, a large number of part-time workers and casual workers also depend on khadi and village industries in Kerala. The industry provided part-time employment to 14,892 workers in 1977-78. In the previous year however the number of part-time workers engaged in the industry was 29,309. The wages earned by all the workers engaged in the industry has fallen to Rs. 403.47 lakhs in 1977-78 from Rs. 433.70 lakhs in 1976-77.

TRANSPORT AND COMMUNICATIONS

An Overview

Kerala is among those States which are comparatively better placed in the matter of transport and communication facilities. The total length of roads in Kerala is around 86,000 km., which works out to nearly 35 km., per 10,000 population. This is more or less similar to the all India average. Of the total length of roads in the State nearly 16,000 kilometres of roads are maintained by the State Public Works Department. The motor vehicles registration in the State is showing a steady increase during the past few years. Kerala with 365 vehicles per 100 sq. km. of area and 574 vehicles per lakh of population in 1977-78 has a high motor vehicle density compared to most other States in India. The passenger transport is mainly in the hands of private operators. But the State-owned Kerala State Road Transport Corporation which possesses more than a third of the total number of passenger vehicles in the State is also expanding its activities.

7.2 Railways cater to nearly 25 million passengers per annum in the State. The completion of Trivandrum-Kanyakumari link will add about 30 km. to the broad gauge network in the State. The construction of the new Ernakulam-Alleppey railway line is proposed to be taken up in April 1979. This Railway line will serve a number of new industries proposed in the region. Air transport is also gaining importance in Kerala. The most important international flight from Trivandrum is the Trivandrum-Dubai Boeing Service which at present is being operated twice a week. Direct flights are also operated to Colombo, Male and Kuwait from Trivandrum. Over 31,000 passengers were flown by Air India flights operating from Trivandrum and Gulf areas during the last one year. The Gulf services form one of the most profitable operations for Air India. The State Government is very keen on developing an airport at Calicut to cater to the needs of the people of Malabar. Infrastructure facilities at Trivandrum and Cochin airports, have to be enlarged to meet the growing demand for air travel.

7.3 Though Kerala has 14 intermediate and minor ports, the major port of Cochin continues to dominate in the sphere of coastal as well as foreign trade. The total volume of traffic handled during 1977-78 was 51.74 lakh tonnes as against 47.67 lakhs tonnes in the preceding year, an increase of 8.5 per cent. Shipping activity at the Port showed an improvement in 1977-78 with a larger number of vessels calling at the Port.

7.4 Substantial progress has been achieved in Kerala in the sphere of communication facilities. As

on 1-4-1978 each post office in the Kerala Circle was serving an area of 9.21 sq. km. and a population of 5852 on an average as against the national average of 27.4 sq. km., and 4688 population. The number of telephone exchanges increased from 339 in March 1977 to 371 in March 1978. Compared to most other States Kerala is well advanced in respect of telecommunication facilities.

7.5. The inland canals of Kerala have considerable potential for both passenger and goods transport. There is considerable scope for inland navigation in the 41 west flowing rivers of the State. But these waterways need substantial improvement if they are to constitute a major mode of transportation.

Roads

7.6 The unique settlement pattern and shortage of railway lines in the State indicate the necessity for a wider and better network of roads. It may be mentioned that many of the roads in the State were formed before the introduction of modern fast moving and heavy vehicles. They suffer from small width, acute bends, steep gradients, weak and narrow bridges and unbridged causeways.

7.7 The State has a total road length of 85,873 km., which includes National Highways, roads maintained by the Public Works Department, Corporations and Municipalities, Panchayats and other agencies in the State. The details are shown in Table 7.1.

TABLE 7.1
Roads in Kerala Under Different Departments as on 1-4-1978

Category of Roads under	Length of Roads (km.)
(1)	(2)
1. National Highway	838
2. Public Works Department	15,963
3. Panchayats	60,039
4. Corporations	957
5. Municipalities	2,080
6. G. D. and N. E. S. Blocks	2,905
7. Irrigation Wing	404
8. Projects	25
9. K. S. E. Board	574
10. Forest Department	1,135
11. Railways	66
12. Others	947
Total	85,873

7.8 Out of the total length of roads in the State about 16,000 km., of roads are maintained by the Public Works Department (B & R). The length of Public Works Department roads increased from 15,239 km., in 1977 to 15,963 km. in 1978. The Public Works Department roads are classified into four heads, viz., State highways, major district roads, other district roads and village roads. The category-wise length of those roads as on 1-4-1978 is provided in Table 7.2

TABLE 7.2
Category-Wise Distribution of Public Works Department Roads

Classification of Roads	Total length (km.)
(1)	(2)
I State Highways	2,028
II Major District Roads	5,705
III Other District Roads	6,561
IV Village Roads	1,669
Total	15,963

7.9 The district-wise break-up of the Public Works Department roads as on 1-4-1978 is indicated 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 construction of bridges, and improvement of roads under its control, the increase in length of new roads under P.W.D. over the last few years has not been substantial.

TABLE 7.3
District-Wise Distribution of Public Works Department Roads

District	Length in kms.
(1)	(2)
1 Trivandrum	1,456
2 Quilon	2,365
3 Alleppey	1,215
4 Kottayam	1,738
5 Idukki	1,186
6 Ernakulam	1,755
7 Trichur	1,322
8 Palghat	1,158
9 Malappuram	1,042
10 Calicut	1,061
11 Cannanore	1,665
Total	15,963

7.10 The distribution of Public Works Department Roads by type of surface as on 1-4-1978 is furnished in Table 7.4.

TABLE 7.4
Distribution of Public Works Department Roads by type of surface as on 1-4-1978

Classification of Roads	Cement concrete	Black topped	Water bound Macadam	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)
1. State Highways	21	2007	..	..	2028
2. Major District Roads	9	5392	296	8	5705
3. Other District Roads	..	4434	1364	763	6561
4. Village Roads	..	..	..	1669	1669
Total	30	11833	1660	2440	15963

7.11 In the Fifth Five Year Plan an outlay of Rs. 22.82 crores was provided for roads and bridges. During the period 1974-78 an amount of Rs. 23.50 crores was spent on this head of development. A start was made in the earlier plans to improve the condition of the existing road network. Spill over works have been given top priority in the Sixth Plan as the completion of these is likely to yield quick results. The poor state of the roads, the increasing trend in the passenger and goods transport on roads and the accelerated pace of development envisaged in the different sectors of the State's economy provide sufficient justification for a higher investment on road development during the coming years.

Road Transport

Motor Vehicles Registration

7.12 Kerala with 365 vehicles per 100 sq. km., of area and 574 vehicles per lakh of population in 1977-78 has a high motor vehicle density compared to most other States in India. The corresponding all-India figures (1974-75) are 73 and 405 respectively. The total number of motor vehicles registered in the State as on 31-3-1978 was about 1.42 lakhs. Trivandrum district has the largest number of vehicles (25,296) followed by Ernakulam (23,590) and Kozhikode (16,558). While Trichur, Quilon and Palghat districts have more than 10,000 vehicles, the other districts have only less than 10,000 vehicles. Idukki district has the least number of vehicles (3,736).

7.13 Of the total number of motor vehicles in the State 45,350 are cars, 38,123 motor cycles/scooters, 17,735 goods vehicles (4 wheeler and above), 13,933 taxi cars and 26,532 other vehicles. In the matter of car registrations, Trivandrum leads the other districts with 10,247 cars followed by Ernakulam (7,509). Other

districts have only less than 5,000 cars. Details regarding the district-wise distribution of motor vehicles are furnished in Appendix 7.2.

7.14. The total revenue from motor vehicle taxes and fees collected under the Motor Vehicles Taxes and Taxation of Passengers and Goods Act increased from Rs. 1,765 lakhs in 1976-77 to Rs. 1,915 lakhs in 1977-78. The revenue from this source works out to 4.5 per cent of the total estimated revenue receipts for 1977-78. The cumulative total of arrears of tax under Motor Vehicles Taxes on 31-3-1978 stood at Rs. 1,253.31 lakhs as against Rs. 1,071.80 lakhs at the end of 1976-77. The receipts under non-motor vehicles was Rs. 6.46 lakhs as against Rs. 7.03 lakhs during 1976-77.

Road Accidents

7.15 The number of road accidents rose from 5,390 in 1975-76 to 5,868 in 1976-77. A total number of 6,339 persons were injured during 1976-77 as against 5,459 persons in the previous year. In 1976-77, 872 persons died as a result of road accidents compared to 861 in the previous year (See Appendix 7.3). The number of vehicles involved in road accidents increased to 6,302 in 1976-77 from 5,736 in 1975-76.

Passenger Transport

7.16 The major mode of passenger transport in Kerala is the road transport which is mainly carried out by private operators, especially in the northern districts of Kerala. Passenger transport in the public sector is the monopoly of the Kerala State Road Transport Corporation which is a venture jointly owned by the State Government and the Southern Railway on behalf of the Government of India. The Kerala State Road Transport Corporation possesses more than a third of the total number of passenger vehicles in the State.

7.17 The number of stage carriages in the State decreased from 8,651 in 1976-77 to 7,993 in 1977-78 and the stage carriages per lakh of population in 1977-78 was 32 as against 36 in 1976-77.

7.18 Kerala State Road Transport Corporation is the second biggest public sector undertaking in Kerala providing employment to over 23,000 persons in 1977-78 as shown below:

Administrative Personnel	3,228
Traffic Personnel	14,216
Maintenance Personnel	5,771
Total	23,215

7.19 The fleet strength of the Corporation rose from 2,480 buses in 1976-77 to 2,631 buses at the end of 1977-78. The number of bus schedules increased from 2,078 at the end of March 1977 to 2,315 at the end of

4/758/MC.

March 1978. The number of routes also increased from 3,024 to 3,340 during this period. As a consequence the route length increased by 7,710 km. and the distance operated by 41.28 lakh km. during the year 1977-78. More than 5,556 lakhs of passengers were carried by the State Transport Services during the year (See Appendix 7.4). The average distance travelled by a passenger was 14.7 km. in 1977-78 as against 14.9 km. in 1976-77. The average earnings per passenger remained the same as in the previous year (76 Ps.). The basic fare structure and the minimum fare during 1977-78 for various types of services under the Corporation are given in Table 7.5.

TABLE 7.5
Fare Structure of Road Transport Corporation

Type of service	Basic fare/ km. (ps)	Minimum fare (ps.)
(1)	(2)	(3)
City	5.0	20
Ordinary	5.0	30
Fast Passenger	5.5	50
Express	6.5	100
Deluxe Express	7.5	200
Terra Plane	11.0	..

7.20 The number of buses commissioned for service during 1977-78 was 194 as against 256 in the previous year. The fleet strength is expected to increase to 2,731 at the end of 1978-79. During 1979-80 the Corporation has programmed to put on road 487 buses at a cost of Rs. 7.70 crores, 350 buses for replacement and 137 for the expansion of services to meet the growth in existing routes. Necessary infrastructure facilities such as land and buildings, workshops etc., are also proposed to be provided in 1979-80.

7.21 The capital contribution to the Corporation by the State Government was Rs. 14.96 crores and by Railways Rs. 6.05 crores as on 31-3-1978. Thus the total capital investment of the Corporation is placed at Rs. 21.01 crores. The gross revenue of the Corporation increased from Rs. 4,068.45 lakhs in 1976-77 to Rs. 4,347.14 lakhs in 1977-78 and the gross revenue expenditure increased from Rs. 4,181.68 lakhs to Rs. 4,694.36 lakhs during this period. There was thus a net deficit of Rs. 347.22 lakhs in 1977-78 as against Rs. 113.23 lakhs in the previous year. The operation of the Kerala State Road Transport Corporation during the last 13 years is depicted in Table 7.6.

TABLE 7.6
Operation of the Kerala State Road Transport Corporation
(1964-65 to 1977-78)

Items	1964-65	1974-75	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)
1. No. of routes under operation	553 (100)	2322 (420)	3024 (547)	3340 (604)
2. Route distance (Km)	17832 (100)	93770 (526)	137724 (772)	145434 (816)
3. No. of schedules operated	661 (100)	1726 (261)	2078 (314)	2315 (350)
4. Gross kilometres operated (lakhs)	608.61 (100)	1563.30 (257)	2039.99 (335)	2081.27 (342)
5. Passengers carried (lakhs)	1399.06 (100)	4216.80 (301)	5111.43 (365)	5556.45 (397)

Note.—Figures in brackets represent indices.

Goods Transport

7.22 The National Council of Applied Economic Research, New Delhi, in their report on Regional Traffic Survey of Kerala, estimated that about 50 per cent of the total volume of goods traffic in the State is through mechanised road transport constituted mainly by lorries. The registration of goods vehicles in the State also indicates the growing 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 17,755 on 31-3-1978 (See Table 7.7).

TABLE 7.7
Number of Registered Goods Vehicles

Year (as on 31st March)	Number of vehicles	Index
(1)	(2)	(3)
1968	10,357	100
1974	19,921	134
1975	15,875	153
1976	15,882	153
1977	17,165	166
1978	17,755	171

7.23 It can be seen from the Table that there had been an increase of over 7,000 goods vehicles during the decade 1968 to 1978. Goods transport industry in Kerala employed 63,445 persons as on 31-3-1978. The district-wise distribution of workers in goods transport network is provided in Table 7.8.

TABLE 7.8
Employment in Goods Transport Network (as on 31-3-1978)

District	Category				Total
	Driver	Cleaner	Workshop staff	Other Office Staff	
(1)	(2)	(3)	(4)	(5)	(6)
1. Trivandrum	2093	860	2200	7215	12368
2. Quilon	4622	2748	2920	80	10370
3. Alleppey	896	896	N. A.	N. A.	1792
4. Kottayam	1600	1600	30	75	3305
5. Idukki	450	450	70	15	985
6. Ernakulam	6236	3200	460	150	10046
7. Trichur	1836	1180	..	48	3064
8. Palghat	1161	881	250	280	2572
9. Malappuram	1430	1430	150	714	3724
10. Kozhikode	3840	3840	1280	2560	11520
11. Cannanore	2499	1200	N. A.	N. A.	3699
Total	26663	18285	7360	11137	63445

7.24 A scheme for the grant of National Permits aimed at facilitating free flow of goods traffic throughout the country was introduced in 1975-76. This was in addition to the existing inter-State and zonal permit system. The State has a quota of 400 permits under National Permit scheme. A total of 321 National Permits were issued till 31-3-1978 as detailed under:

(i) Existing Inter-State operators..	76
(ii) Existing intra-State operators	80
(iii) Ex-army personnel	.. 14
(iv) Unemployed drivers	.. 58
(v) Other new entrepreneurs	.. 93
Total	.. 321

Railways

7.25 Out of the total railway network of 886.35 kms. in Kerala 773.64 kms. are broadgauge (with about 63 km. of double line track) and 112.71 kms. are metregauge. There are 156 railway stations in the State and about 11500 employees are working in Kerala area. This mode of transport caters to nearly 25 million passengers per annum. The length of rail network per lakh of population is only 4 kms. in the State. This is quite low compared with the national average of about 10 kms.

7.26 The construction of Trivandrum-Tirunelveli broadgauge link via Nagarcoil with a branch line to Cape Comerin is in progress and its completion will add about 30 kms. to the broadgauge network in the State. The Trivandrum-Cape Comerin link is expected to be completed by April 1979. This will provide a North-South direct rail connection from Kashmir to Kanyakumari.

7.27 A coastal rail-link connecting Ernakulam with Alleppey is of vital importance for Kerala. The construction of this link is proposed to be taken up in April 1979. A budget provision of Rs. 1 crore is made in the central railway budget for 1979-80 for this line whose total cost is estimated at Rs. 6 crores. The Kerala Government is looking forward to the early completion of this vital rail link of 51 kms. in the coastal belt of the State. The development of several large and medium industries proposed by the Kerala Government hinges on rail facilities in the Alleppey-Cochin region. The proposed rail link will connect a number of towns and villages especially in the Alleppey district. The Alleppey port would also receive a fillip after this railway line begins its operation.

7.28 The work regarding the laying of a new siding for Titanium Complex at Sankaramangalam near Chavara taking off from Karumagappally railway station and having a length of 8 kms. is expected to be commenced shortly. The work is to cost about Rs. 1 crore. It is also proposed to give a siding for the Malabar Cements Limited for the Walayar Cement Factory to be located in Palghat district. Engineering surveys for the siding have just commenced. A major carriage and wagon repair shop for southern zone to be located in Palghat district has been proposed by the Railways. The proposed factory is to be located opposite to the Kanjikode Station next to Olavakkot Junction on the Olavakkot-Coimbatore section of Southern Railway.

7.29 The survey for electrifying the track between Trivandrum and Coimbatore has already been undertaken to meet the heavy demand of passenger and goods traffic. Due to shortage of coal, passenger trains have to be cancelled often. Movement of coal from coal fields involves enormous cost. This can be avoided by electrification. Since surplus power is available in Kerala, electrification programme has to be vigorously pursued.

7.30 The traffic in Kerala especially between Trivandrum and Northern areas of the State has substantially increased in recent years. After the conversion of Ernakulam-Trivandrum link into broadgauge the traffic has increased beyond expectations and more than 30 trains are running both ways in Ernakulam-Quilon and 24 trains in Quilon-Trivandrum sections. There is heavy demand from the public for additional train services. Since trains are faster than buses the majority of the people prefer to travel by train. The single lane traffic will not be able to carry this load after some years. Hence the doubling of track between Trivandrum and Ernakulam may have to be considered now itself and the work taken up early.

7.31 Details of goods traffic originating at different railway stations in Kerala during the year 1977-78 are furnished in Appendix 7.5.

Air Transport

7.32 Kerala State has two airports, one at Trivandrum and another at Ernakulam. The northern part of the State, viz. Malabar, has no air transport facilities and hence the State Government is very keen on developing an airport at Calicut to cater to the needs of the people of Malabar. The long awaited construction work relating to the Calicut airport is expected to commence shortly.

7.33 The most important international flight from the Trivandrum airport is the Trivandrum-Dubai Boeing service which at present is being operated twice a week on Tuesdays and Thursdays. The Trivandrum-Colombo flight is operated on Wednesdays and Fridays and Trivandrum-Male flight on Saturdays and Mondays. In addition there is a weekly service to Kuwait via Abu Dhabi also operated from Trivandrum on Sundays. Over 31000 passengers were flown by Air India flight operating between Trivandrum and Gulf areas during the last one year. The Gulf services form one of the most profitable operations for Air India. Though the above mentioned international flights are operated from Trivandrum, provision of infrastructure facilities at the Trivandrum airport has not kept pace with the growth of international traffic. It is essential that facilities are enlarged to meet the growing demand for air travel. An estimated number of 3000 people from the State travel from Trivandrum to Gulf countries every month. The terminal building at Trivandrum is being extended to cope with the increasing traffic both in the domestic and international sectors. Additional room is being provided for customs, health and immigration authorities. To provide facilities for air bus flights the runway is being strengthened and extended to 10,000 ft.

7.34 The existing air port at Cochin is at present inadequate to cater to the needs of the increasing traffic. Owing to its commercial and tourist importance Cochin has to be so developed as to receive bigger jet air craft and air bus. Now plans are on the anvil for developing Cochin to receive Boeing planes.

7.35 A statement showing sector-wise passenger traffic carried both ways from 1972-73 to 1977-78 from Cochin and Trivandrum airports is furnished in Appendix 7.6. An increasing trend in passenger traffic is evident from the year 1974-75 in respect of Trivandrum-Bombay and Trivandrum-Colombo routes. Compared to the year 1972-73 the passenger traffic increased 15 times in the Trivandrum-Bombay route. The Colombo-Trivandrum link showed a sixfold increase, Trivandrum-Male service recorded a 23 times increase in passenger traffic in a short span of about two years.

Inland Navigation

7.36 The inland canals of Kerala have considerable potential for both passenger and goods transport. The State has about 1900 km. of navigable waterways. The main canal, viz., the west coast canal has a length of about 555 kms. In addition to this main canal there is a system of feeder canals connecting the central longitudinal strip of Kerala to this canal system. There is much scope for navigation in the forty-one west flowing rivers of the State. An integrated programme of development of the waterways which would involve simultaneous completion of civil works and procurement of craft for operation of services should be the ideal to be aimed at.

7.37 The State Water Transport Department operates services from Alleppey on routes north of Quilon upto Ernakulam and in the Kuttanad area. In 1977-78 the Department was operating services in 59 routes covering a route distance of 1828 kms. per day. The number of schedules increased from 138 in 1976-77 to 149 in 1977-78. The Department has in possession 79 passenger boats having a total seating capacity of 6764 persons. Fifty-five boats were in actual operation during 1977-78. Nearly 90 lakh passengers were carried during the year. The total revenue collected by the Department was Rs. 61.01 lakhs in 1977-78 compared to Rs. 59.14 lakhs in 1976-77. The total expenditure in 1977-78 is estimated at Rs. 74.75 lakhs as against Rs. 77.54 lakhs in the previous year.

7.38 The Kerala State Road Transport Corporation is operating ferry services in the Cochin harbour area as an ancillary service under the Road Transport Corporation Act, 1950. At present there are 11 boats operating in the routes Ernakulam-Cochin, Ernakulam-Vypeen, Ernakulam-Vallarpadam, Ernakulam-Fort Cochin, Terminus-Cochin and Terminus-Vypeen. About 31000 passengers make use of this service for travel between the mainland and the island and between ports in the mainland every day. Better and more efficient boat services can definitely augment the transportation system of Cochin due to the availability of navigable waterways around it. The Corporation proposes to develop its water transport service by introducing fibre glass boats and developing infrastructure facilities like improvement of jetties, workshop buildings and purchase of machinery.

7.39 The State owned Kerala Inland Navigation Corporation Limited (KINCO) set up in December 1975, has an authorised capital of Rs. one crore. Its paid up capital at the end of 1977-78 was Rs. 17 lakhs. The main objective of the Corporation is to acquire vessels and enter into cargo transport business and passenger services. Accordingly one new tug boat was acquired and another old one was purchased and got repaired. The Company entered the commercial

field of transportation from 26-8-1977. Regular passenger service in the routes Ernakulam-Narakkal was started towards the close of 1977-78. The Corporation proposes to take up the ferry service between Perumanoor and Willingdon island. Other boat services like Ernakulam-Murukumpadam, Bolghatty-High Court etc., are also under consideration. The Corporation has also taken up the construction of four steel barges of 60 tonnes each at an estimated cost of Rs. 8 lakhs.

Ports and Harbours

7.40 Ports in Kerala have a special place in the State's transport system. In addition to the major port of Cochin the State has 14 intermediate and minor ports. Calicut, Alleppey and Neendakara are the intermediate ports. The minor ports are Kasargode, Cannanore, Azhikkal, Tellicherry, Badagara, Beypore, Ponnani, Munambam, Quilon, Trivandrum and Vizhinjam. The total traffic handled in all the minor ports of Kerala have declined from 16.95 lakh tonnes in 1961-62 to 2.37 lakh tonnes in 1977-78. Out of the 14 minor and intermediate ports, only five ports viz; Azhikkal, Calicut, Beypore, Alleppey and Neendakara handled any traffic worth mention during the last few years. One of the main reasons for the decline in traffic is that loading and unloading of cargo at the open roadstead would become hazardous during the monsoon season and as a consequence the operations at all the minor ports would be practically suspended during this season. The traders would have to seek facilities at the major port of Cochin during this period. There are several other limitations in the facilities offered at minor ports because cargo handling and shipping through piers are labour intensive and time-consuming. The development of road traffic has also made the diversion of cargo to the Cochin port easier. Reliable long distance road transport has tended to reduce coastal traffic in steamers from the minor ports. Hence it is essential to draw a plan of action for the development of minor ports.

7.41 Developments taking place in some of the minor ports are worthy of mention. The State Government contemplates the development of Vizhinjam into a good cargo harbour as this port has all the natural facilities required. The Central Government, however, has so far given assistance for developing Vizhinjam as a fishing harbour only. It is therefore necessary to impress upon the Centre the potential of Vizhinjam as a cargo harbour.

7.42 Recently a change in the approach to the development of Beypore port has been decided upon. As per the recommendations of the Central Water and Power Research Station, Poona, two breakwaters will be built at Beypore at a cost of about Rs. 1.5 crores. This will help to reduce maintenance-dredging of the

channel. The construction of the breakwaters is expected to be taken up in 1979-80 and completed in two years. The State Government is contemplating speedy development of Beypore port with facilities to take in small ships of 2000 to 3000 tonnes capacity.

Cochin Port

7.43 The general operating conditions at the major port of Cochin were satisfactory during 1977-78. Night pilotage was reintroduced with effect from 1st January 1978 so as to reduce the turn-round time of ships. Though there were a few strikes, port operations were conducted without much handicap. Shipping activity at the port showed an improvement in 1977-78 compared to the preceding year with a larger number of vessels calling at the port. The number of ships that called at the port in 1977-78 increased to 996 from 961 in the preceding year. There was an increase in the number of sailing vessels also that called at the port. The average size of ships called at the port also recorded an increase during the year 1977-78. For the first time in the history of the port, super tankers started calling at the port's outer roads with crude oil for the Cochin Refineries.

7.44 The total volume of traffic handled at the Cochin Port during 1977-78 was 51.74 lakh tonnes as against 47.67 lakh tonnes in 1976-77, an increase of 8.5 per cent over the previous year. Both exports and imports increased during 1977-78. Exports increased from 11.97 lakh tonnes to 12.49 lakh tonnes while imports increased from 35.70 lakh tonnes to 39.25 lakh tonnes. Import of Bombay High crude and export of raw rice and tapioca were new activities which were added at the port. The total value of trade which passed through the port during the year 1977-78 recorded an increase of Rs. 171.04 crores or 19.9 per cent over the preceding year.

7.45 There was substantial increase in both the gross income and gross expenditure of the port during 1977-78. Income during the year was Rs. 1505.99 lakhs as against Rs. 1289.90 lakhs in the preceding year. The gross expenditure of the port was Rs. 1401.25 lakhs as against Rs. 929.79 lakhs in 1976-77. Thus there was a net surplus of Rs. 104.74 lakhs during the year as compared to Rs. 360.11 lakhs in the preceding year. During 1977-78 the total amount of loan repaid was Rs. 46.95 lakhs while the repayment of loan during 1976-77 was Rs. 40.87 lakhs. The total capital expenditure (plan and non-plan) during the year 1977-78 amounted to Rs. 133.53 lakhs. The value of the capital assets of the Port Trust at original cost increased from Rs. 2908.86 lakhs as on 31-3-1977 to Rs. 3009.74 lakhs as on 31-3-1978. The annual Plan provision for the Cochin Port for the year 1977-78

was Rs. 254 lakhs. But the expenditure on plan schemes was only Rs. 127.94 lakhs (50.37 per cent). The short fall in expenditure was due to the poor progress of schemes relating to construction of container berth, purchase of a hopper-grab dredger, high power tug, extension of workshop wharf, reclamation of south-end of Willingdon Island and purchase of additional pilot launch. The Fifth Plan provision for Cochin Port Trust was Rs. 1249.39 lakhs. Of this an amount of Rs. 738.34 lakhs was spent till 31-3-1978 (59.1 per cent of the provision).

Kerala Shipping Corporation

7.46 The Shipping Corporation of Kerala, set up in May 1974, has an authorised capital of Rs. 15 crores. Its paid up capital at the end of 1977-78 was Rs. 170.91 lakhs. The Corporation acquired its first vessel 'M. V. Kairali' with a DWT of 21550 in February 1976. During the year 1977-78 'Kairali' undertook four round voyages and the gross freight earned was Rs. 200.60 lakhs. The gross profit earned by the Corporation during the year amounted to Rs. 14.36 lakhs. However the Corporation had to sustain a net loss of Rs. 33.89 lakhs. The Government of Kerala has approved the proposals of the Corporation to acquire additional vessels. The Board of Directors has accordingly authorised the ship purchase committee to negotiate for ships of the size of 15,000 to 30,000 DWT and of the age upto the limit acceptable to Shipping Development Fund Committee from whom 90 per cent of the finance for new acquisitions is expected. But due to unsteady market fluctuations of price of vessels the Corporation has not yet been able to fix up a deal.

Communications

7.47 Kerala has 16 postal divisions, 2 R. M. S. divisions, 2 postal stores depot units and one mail motor service division unit. As on 1-4-1978, 4218 post offices were functioning in the State. These comprised 33 head post offices, 1270 sub post offices and 2915 branch post offices. One hundred and fifteen post offices were added during the year 1977-78. Each post office in the circle was serving on an average an area of 9.21 sq. km. and a population of 5852 as against the all India average of 27.4 sq. km. and 4688 population. The number of letters received per sq. km. is very high in Kerala compared to the rest of India owing to the high literacy and mobility of the people of the State. The post offices in Kerala are functioning on a remunerative basis. Opening of more post offices and upgradation of existing post offices in the State would in addition to improving and developing the existing services contribute to the emergence of a viable postal system.

7.48 Kerala has at present 126 mobile post offices and with the installation of more letter boxes, no customer anywhere in the State will have to travel more

than one and a half kilometres to post a letter. Every village in the State receiving at least one letter a day has a letter box. Efforts are being made to have more branch offices as mobile post offices. This will increase postal facilities in the interior regions. Emphasis will be laid in the coming years on upgrading sub post offices into head post offices and branch post offices into sub post offices and on opening of branch post offices.

7.49 In comparison with the other States, Kerala State is well advanced in respect of telecommunication facilities. As on 31-3-1978 there was on an average, a telephone exchange at every 11 km. and a telegraph office at every 6 km. in Kerala. In the matter of subscriber trunk dialling facilities Kerala ranks first with

9 out of 11 district headquarters inter-connected by direct dialling. There were 2.3 telephones per sq. km. compared to the national average of 0.7 as on March 1978. Out of a total of 1268 villages in the State, 790 villages have telephone/telegraph facilities. The number of telephone exchanges increased from 339 in March 1977 to 371 in March 1978. Of these 371 telephone exchanges in the State 340 are automatic. Kerala has also 1309 telegraph centres and 7 telex centres. The telecommunication network in Kerala represents approximately 4 per cent of the all India network. The current telecommunication assets of Kerala circle are valued at Rs. 40 crores. Revenue receipts from telecommunications are of the order of Rs. 16 crores per annum.

CHAPTER 8

EXPORT IMPORT TRADE

India's Foreign Trade

India's foreign trade has undergone a change during the recent past both in regard to direction and composition. On the basis of revised figures, India's exports including re-exports for the year 1977-78, stood at Rs. 5375 crores as against Rs. 5146 crores for 1976-77 which is an increase of 4.5 per cent against the 27.3 per cent increase in the previous year. According to the latest Economic Survey of the Government of India, exports during 1978-79 are likely to be lower by 2.3 per cent as compared with the level of 1977-78. This deceleration in the export growth rate has been the combined result of various national and international factors, more important among them being the protectionist policies followed by the developed countries. The growth in export earnings in 1977-78 compared to 1976-77 came mainly from higher unit values realised for tea, coffee, spices etc.

8.2 India's imports during the year 1977-78 was Rs. 6069 crores compared to Rs. 5074 crores for the previous year, the increase being 19.6 per cent. This increase in imports was the result mainly of the liberalisation of import policy aimed at enlarging the production base.

8.3 As a result of the change in the export-import policy, the year 1977-78 closed with a re-emergence of a sizeable trade deficit of the order of Rs. 694 crores in the place of a modest surplus of Rs. 72 crores in 1976-77. The details regarding the imports and exports of India during 1976-77 and 1977-78 are furnished in Table 8.1.

TABLE 8.1
Imports, Exports and Trade Balance of India

(Rs. crores)					
Year	Imports		Exports		Trade Balance
	Amount	% Increase over the previous year	Amount	% increase over the previous year	
(1)	(2)	(3)	(4)	(5)	(6)
1976-77	5074	(—) 3.6	5146	27.3	72
1977-78	6069	19.6	5375	4.5	(—) 694

8.4 The provisional figures of exports for the first four months of the current financial year are placed at Rs. 1634 crores as against Rs. 1658 crores for the corresponding period of 1977-78. A fundamental change has been noted in the export strategy which emphasises new role assigned to small scale sector, sale of turnkey projects and consultancy services. New guidelines have been approved for setting up joint ventures abroad in the fields of trading, marketing, consultancy and specialised services. The two fold aims of the export strategy are to secure a rapid increase in exports without adversely affecting domestic supplies and to ensure a balanced and harmonious industrial development without jeopardising the legitimate interests of small and tiny sectors. It is expected that India's major thrust in the coming years in the field of exports is most likely to be in the areas of engineering goods, capital goods, processed agricultural goods and machinery. In spite of an impressive pick up in exports in recent times, India's share in the total world exports remains at a very low level of about 0.5 per cent.

Kerala's Exports

8.5 There are no firm estimates regarding the magnitude of exports originating from Kerala State. However some studies like that of the Export Potential Survey of the Indian Institute of Foreign Trade (1972) shows that Kerala's share is roughly of the order of 8 to 10 per cent of the all India exports. The major items of exports from Kerala are agricultural commodities such as tea, coffee, spices, cashew and traditional items like coir, handloom and forest products. Agricultural commodities contribute nearly three fourths of Kerala's total exports. The details of exports of principal commodities from Kerala during 1977-78 mainly based on the exports through Cochin Port are furnished in Table 8.2. Obviously, these figures do not represent the actual exports of Kerala.

TABLE 8.2
Export of Principal Commodities from the Ports of Kerala during 1976-77 and 1977-78 (Provisional)

Principal Commodities	1977-78		1976-77		Percentage increase over 1976-77	
	Quantity (Tonnes)	Value (Rs. crores)	Quantity (Tonnes)	Value (Rs. crores)	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Marine products	29819	77.45	31595	90.12	(-) 5.62	(-)14.06
2. Spices:	94661	65.80	24565	46.18	(+) 41.10	(+)42.49
(i) Pepper	23673	47.24	19365	36.47	(+) 22.25	(+)29.53
(ii) Cardamom	237	3.76	243	3.67	(-) 2.47	(+)2.45
(iii) Turmeric	2619	2.10	1403	0.65	(+) 86.67	(+)223.08
(iv) Ginger	5934	8.48	1683	2.02	(+)252.58	(+)319.80
(v) Others	2198	4.22	1871	3.37	(+) 17.48	(+)25.22
3. Cashew Kernels	23820	75.21	36725	135.76	(-) 35.14	(-)44.67
4. Cashew Shell Liquid	5001	3.48	2090	0.65	(+)138.26	(+)435.38
5. Coir and Coir Products	42220	23.78	43935	22.58	(-) 3.90	(+)5.31
6. Tea	64322	127.70	52360	61.05	(+) 22.85	(+)109.17
7. Coffee	15050	57.68	13449	33.56	(+)11.90	(+)71.87
8. Handloom	..	2.04	..	2.68	..	(-)23.88
9. State Government concerns and other Government of India concerns	..	5.81	..	7.73	..	(-)24.84
Total	214993	438.95	201728	400.31	(+) 4.95	(+)9.65

Source: (i) Administration Report of Cochin Port (1977-78).
(ii) Commodity Boards/Export Promotion Councils.

8.6 The trend in exports of the various commodities is discussed in the following paragraphs:

Marine Products.

8.7 In 1977-78 the export of marine products declined to 65,967 tonnes valued at Rs. 180.95 crores from the all time high of 66,750 tonnes worth Rs. 189.12 crores in 1976-77. Kerala's share of exports also decreased during the period from 31,695 tonnes to 29,819 tonnes.

In terms of value, the earnings came down to Rs. 77.45 crores from Rs. 90.12 crores. Table 8.3 shows the details of exports of marine products from 1964-65. The share of export of marine products according to the various sectors like frozen fish, canned fish etc. from India from 1972-73 to 1977-78 in percentage terms is given in Table 8.4. As in the previous years the frozen items contributed for the major share of exports. Though there is an increase in terms of quantity, there is a slight decrease in terms of value earned by frozen fish products.

TABLE 8.3
Export Growth of Marine Products from India and Kerala from 1964-65 to 1977-78

Year	Export from Kerala		Export from India		Average Unit value realisation (Rs./Kg. (India))	Export Earnings (% share of Kerala to all India)
	Quantity (in tonnes)	Value (Rs. crores)	Quantity (in tonnes)	Value (Rs. crores)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1964-65	9,750	5.04	21,122	7.14	3.38	70.59
1965-66	9,561	6.01	15,295	7.06	4.62	85.13
1966-67	13,175	14.64	21,116	17.37	8.23	84.28
1967-68	15,245	16.75	21,907	19.72	9.00	84.94
1968-69	18,481	20.25	26,311	24.70	9.21	81.96
1969-70	22,172	27.23	31,695	33.46	10.56	81.38
1970-71	23,896	27.57	35,883	35.07	9.77	78.61
1971-72	21,892	33.70	35,523	44.55	12.54	75.63
1972-73	25,797	41.97	38,903	59.72	15.35	70.28
1973-74	31,561	57.76	52,279	89.51	17.12	64.53
1974-75	25,280	39.58	45,099	68.41	15.17	57.86
1975-76	31,683	67.62	54,463	124.53	22.86	54.90
1976-77	31,695	90.12	66,750	189.12	28.33	47.63
1977-78	29,819	77.45	65,967	180.95	27.43	42.80
1978-79 (April)	18,628	51.22	..	..	..	..

Source: Marine Products Export Development Authority, Cochin.

TABLE 8.4
Sectoral Share of Export of Marine Products from India in Percentage Terms (1972-73 to 1977-78)

Sectors	1972-73		1973-74		1974-75		1975-76		1976-77		1977-78	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Frozen	86.38	91.75	79.93	90.56	81.00	89.90	83.79	96.93	85.36	96.94	86.02	95.12
Canned	4.07	5.43	3.87	6.03	2.60	5.20	0.32	0.37	0.29	0.38	0.20	0.31
Dried	6.22	2.44	7.27	1.52	3.60	1.10	10.07	1.29	8.09	1.16	6.77	1.34
Others	3.33	0.38	8.93	1.89	12.80	3.80	5.82	1.41	6.26	1.52	7.01	3.23
All	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

8.8 The item-wise share of exports of marine products in quantity and value terms during the period 1975-76 to 1977-78 is furnished in Table 8.5. While the quantity of "frozen" and "dried" items exported decreased during 1977-78 that of "other" items recorded an increase compared to 1976-77. The major countries

importing marine products from India are U.K., U.S.A., France, U.S.S.R., Japan and Eastern Europe. The exports of marine products from the ports of Kerala from April to October (1978-79) amounted to 18628 tonnes worth Rs.51.22 crores.

TABLE 8.5
Item-wise exports of marine products from India (1975-76 to 1977-78)

Item	1975-76		1976-77		1977-78	
	Quantity (Tonnes)	Value (Rs. Crores)	Quantity (Tonnes)	Value (Rs. Crores)	Quantity (Tonnes)	Value (Rs. Crores)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Frozen	50549	121.51	56977	189.34	56743	172.11
Canned	191	0.43	194	0.73	129	0.57
Dried	2491	1.08	5401	2.17	4465	2.43
Others	1232	1.51	4178	2.88	4630	5.84
Total	54463	124.53	66750	189.12	65967	180.95
Increase over 1975-76			+12287 (+22.56%)	+64.59 (+51.86%)	+11504 (+21.12%)	+56.42 (+45.31%)
Increase over 1976-77					-783 (-1.17%)	-8.17 (-4.32%)

Spices

8.9 India's export earnings from spices and spice products have been steadily increasing during the past decades. The exports of spices and spice products from India during 1977-78 attained the new peak of 73,597 tonnes valued at 140.08 crores. The increase was about 21 per cent in terms of quantity and 84 per cent in terms of value over that of the previous year. There has been not much of a change in the direction of trade of spice items from India in 1977-78. As in

the previous years East European countries were the main buyers of Indian pepper while the Middle East countries continued to be the largest buyers of cardamom. India also re-captured a major share of American pepper market during 1977-78 by exporting 5179 tonnes valued at Rs.10.5 crores compared to 1481 tonnes valued at Rs.2.03 crores in 1976-77. Kerala's exports through Cochin and other Ports in the State account for about 47 per cent in terms of both quantity exported and value earned from export of spices by India during 1977-78. The data relating to item-wise exports of spices from Kerala Ports and India are given in Table 8.6.

TABLE 8.6

Export of Spices from the Ports of Kerala and India

Commodity	Kerala				India				Percentage of Kerala's Exports to India's Exports			
	1976-77 (Revised)		1977-78 (Provisional)		1976-77 (Revised)		1977-78 (Provisional)		1976-77 (Revised)		1977-78 (Provisional)	
	Quantity (Tonnes)	Value (Rs. crores)	Quantity (Tonnes)	Value (Rs. crores)	Quantity (Tonnes)	Value (Rs. crores)	Quantity (Tonnes)	Value (Rs. crores)	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Pepper	19365	36.47	23673	47.24	20527	38.24	25250	50.05	94.34	95.37	93.75	94.39
Cardamom	243	3.67	237	3.76	893	14.03	2763	48.44	27.21	26.16	8.58	7.76
Ginger	1683	2.02	5934	8.48	4461	5.84	9465	13.64	37.73	34.59	62.69	62.17
Turmeric	1403	0.65	2619	2.10	11796	4.44	9319	7.19	11.89	14.64	28.10	29.21
Others	1871	3.37	2198	4.22	23280	13.43	26800	20.76	8.04	25.09	8.20	20.33
Total	24565	46.18	34661	65.80	60957	75.98	73597	140.08	40.30	60.78	47.10	46.97

Pepper

8.10 The export of pepper from India during 1977-78 amounted to 25,250 tonnes valued at Rs. 50.05 crores—an all-time record in earnings from pepper. The export of pepper during 1976-77 was only 20,527 tonnes valued at Rs. 38.24 crores. The better off-take by the East European countries, increased exports to U.S.A. and higher unit value realised were the main factors which accounted for the record export earnings during 1977-78. Kerala has almost a monopoly in the production of pepper in the country.

Cardamom

8.11 The year 1977-78 witnessed an all-time high in the export, export earnings and unit value realisation in respect of cardamom. During the year India produced 3900 tonnes of cardamom, exported 2763 tonnes and earned Rs. 48.44 crores, the unit value realisation being Rs. 175 per kg. The Middle East countries continued to be the main buyers followed by West Europe, Japan, U.S.A. etc. Though the export of cardamom through Cochin Port during 1977-78 is recorded as 237 tonnes worth Rs. 3.76 crores this does not represent the actual export originating from Kerala. Kerala which produced 2900 tonnes in 1977-78 accounts for 74 per cent of the total cardamom production in the country. 'Alleppey Green' which is produced in Kerala accounts for 94 per cent of the total India exports of cardamom. The varieties produced by the other States are mainly used for internal consumption.

Ginger

8.12 The export of ginger during 1977-78 registered a new record in terms of quantity and earnings. Altogether 9465 tonnes of ginger worth Rs. 13.64 crores were exported in 1977-78 compared to 4461 tonnes worth

Rs. 5.84 crores in the previous year. Ginger export as in the previous years were mainly to Middle East countries and North America. The average f.o.b. price realisation of ginger during 1977-78 was higher at Rs.14.42 per kg. against Rs.13.10 per kg. during 1976-77. During the year 5934 tonnes of ginger valued at Rs. 8.48 crores were exported through the ports of Kerala against 1683 tonnes valued at Rs. 2.02 crores during 1976-77.

Turmeric

8.13 Turmeric exports from India during 1977-78 amounted to 9,319 tonnes valued at Rs. 7.19 crores as against 11,796 tonnes valued at Rs. 4.44 crores in 1976-77. The higher unit value realisation in 1977-78 contributed to the substantial increase in earnings during the year. India's exports of turmeric are mainly directed to U.S.A., U.K., Japan, Canada, and Middle East countries. The decrease in exports in terms of quantity during the year was the result of a ban imposed by the Government of India on the export of turmeric with effect from 4-1-1978. This ban was introduced with a view to bringing down the internal price of the commodity. The ban was relaxed by subjecting it to a ceiling in the quantity exported in the case of Alleppey finger turmeric as this variety was not consumed within the country.

Cashew Kernels

8.14 According to the provisional estimates of the Cashew Export Promotion Council, India exported 23,820 tonnes of cashew kernels worth Rs. 75.21 crores during the year 1978, compared to 39,255 tonnes valued at Rs. 143.14 crores during 1977. The quantity exported, value earned and the unit value realised decreased during 1978 as against 1977. The major importers

of cashew kernels from India are U.S.S.R., U.S.A., Japan, Netherlands, Canada and Australia. The exports to these countries were lower in 1978 than those of the previous year. Table 8.7 gives the figures relating to destination wise exports of cashew kernels during the year 1977 and 1978.

TABLE 8.7
Export of Cashew Kernels from India (1977 & 1978)

Countries	January—December		January—December	
	1977		1978*	
	Quantity (Tonnes)	Value (Rs. lakhs)	Quantity (Tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)
U. S. S. R.	19597	7352.97	8885	2645.74
U. S. A.	8791	3059.59	6015	1932.73
Japan	3001	1166.46	3441	1139.94
Canada	1286	471.23	604	199.31
Australia	1976	717.51	594	198.70
Hongkong	578	205.39	293	96.52
Netherlands	1107	374.32	1125	363.58
Federal Republic of Germany	496	159.78	341	103.90
G. D. R.	146	26.47	Neg.	Neg.
U. K.	383	114.46	490	154.42
Kuwait	413	154.64	609	207.98
Singapore	247	78.83	286	92.08
Total exports from India (including other countries)	39255	14314.34	23820	7520.74
Unit Value: Rs./Kg.		36.47		31.57

*Provisional Figures.

Cashew Shell Liquid

8.15 India exported 5001 tonnes of cashew shell liquid and earned Rs. 3.48 crores during 1978 as against 2969 tonnes valued at Rs. 0.98 crore during 1977. The quantity of shell liquid exported as well as the unit value realised sharply increased in 1978. U.K., U.S.A., and Japan continue to be the main importers of this commodity from India. The details of exports of cashew shell liquid are furnished in Table 8.8

TABLE 8.8
Export of Cashew Shell Liquid from India (1977 & 1978)

Countries	January—December 1977		January—December 1978	
	Quantity (Tonnes)	Value (Rs. lakhs)	Quantity (Tonnes)	Value (Rs. lakhs)
	(1)	(2)	(3)	(4)
U. K.	965	20.07	1496	76.47
Japan	540	14.41	1035	72.18
U. S. A.	100	5.52	1441	117.20
Rumania	350	10.15	160	10.16
Korean Republic	395	15.20	375	30.56
Total (including other countries)	2969	97.91	5001	347.74
Unit value (Rs. per tonne)		3297		6953

Import of Raw Cashew Nuts

8.16 The decreasing trend in imports of raw cashew nuts continued during 1977-78 also. India could import only 60,194 tonnes of raw nuts worth Rs. 18.72 crores in 1977-78 against 75,122 tonnes worth Rs. 18.33 crores in the previous year. The unit value per tonne of raw nut imported during 1977-78 also was higher compared to that of 1976-77. The details of imports of raw cashew nuts into India as furnished by the Cashew Export Promotion Council are given in Table 8.9

TABLE 8.9
Imports of Raw Cashew Nuts into India (Revised)

Year	Quantity (Tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)
1950-51	54819	284.00
1955-56	63154	484.00
1960-61	118321	961.00
1965-66	150636	1506.00
1966-67	141021	2124.00
1967-68	168218	2508.00
1968-69	195528	3198.00
1969-70	163426	2760.00
1970-71	169959	2940.76
1971-72	169985	2790.60
1972-73	197938	3180.93
1973-74	150249	2879.86
1974-75	160358	3660.43
1975-76	137196	3355.78
1976-77	75122	1832.99
1977-78*	60194	1871.99

*Provisional.

The acute shortage of raw cashewnuts following dwindling imports prompted the Government of India to take various steps to increase the internal production of raw nuts. The cashew industry is facing severe competition in the export market from the cashew producing countries of East Africa, particularly Tanzania and Mozambique, which have started processing and also from China and Brazil who have emerged as exporters of this commodity. In spite of all these adverse factors, India continues to be the major exporter of cashew kernel.

8.17 The data relating to export of cashew products from India and Kerala and the import of raw nuts in 1977 and 1978 are given in Table 8.10. Raw nut imports into India were effected only through the ports of Kerala in 1978. More than 96 per cent of the raw nuts imported were supplied by Tanzania.

TABLE 8.10
Export and Import of Cashew Products

Products	January—December 1977		January—December 1978*	
	Quantity (Tonnes)	Value (Rs. crores)	Quantity (Tonnes)	Value (Rs. Crores)
(1)	(2)	(3)	(4)	(5)
A. Export of Cashew Products				
1. Cashew Kernels				
India	39255	143.14	23820	75.21
Kerala	36725	135.76	23820	75.21
2. Cashew Shell Liquid				
India	2969	0.98	5001	3.48
Kerala	2099	0.65	5001	3.48
B. Import of raw Cashew Nuts				
India	64344	19.04	23009	9.03
Kerala	61441	17.95	23009	9.03

* Provisional.

TABLE 8.11

Item-wise Export of Coir and Coir Goods from India (1972-73 to 1977-78)

Item	1972-73		1973-74		1974-75		1975-76		1976-77		1977-78	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Coir Fibre	298	4.62	276	3.77	161	3.05	266	6.94	134	2.88	55	1.48
Coir Yarn	31908	818.18	29373	822.01	24401	826.71	22970	1002.19	26567	1052.32	22639	910.89
Coir Mats	12749	526.26	12302	573.28	11322	646.53	7488	562.48	9582	735.18	10748	829.13
Coir Mattings, Rugs, Carpets etc.	3648	132.53	3457	140.40	5049	263.29	5276	337.12	7020	462.00	8044	627.25
Coir Rope	104	1.64	140	2.84	198	3.47	269	6.70	185	5.42	160	4.75
Curled Coir	773	9.81	1208	15.49	762	10.40	1014	19.52	868	19.48	789	16.67
Rubberised Coir Goods	*	0.01	3	0.39	1	0.17	1	0.25	1	0.27	8	1.67
Total	49480	1493.05	46759	1558.18	41834	1753.62	37284	1935.20	44357	2277.55	42443	2391.84

* Negligible.

8.19 The data relating to export of coir and coir products from Kerala and India as a whole during the year 1977-78 are furnished in Table 8.12. It can be

seen that the share of Kerala in the all-India exports of coir and coir goods is over 99 per cent both in terms of quantity and value.

TABLE 8.12

Export of Coir & Coir Products from Kerala and India during 1977-78

Item	Kerala		India		Kerala's share in All India Exports in Percentage	
	Quantity (Tonnes)	Value (Rs. lakhs)	Quantity (Tonnes)	Value (Rs. lakhs)	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Coir Fibre	41	1.13	55	1.48	74.55	78.35
2. Coir Yarn	22571	907.51	22639	910.89	99.70	99.89
3. Coir Mats	10682	823.15	10748	829.13	99.39	99.39
4. Coir Mattings	6729	521.48	6741	521.88	99.82	99.82
5. Coir Rugs & Carpets	1228	99.32	1228	99.32	100.00	100.00
6. Coir Other sorts	60	4.35	75	6.05	80.00	71.99
7. Coir Rope	157	4.68	160	4.75	98.13	98.39
8. Curled Coir	750	15.96	789	16.67	95.06	95.24
9. Rubberised Coir Products	2	0.03	8	1.67	25.00	1.89
Total	42220	2377.61	42443	2391.84	99.47	99.41

8.20 West Europe with a share of 64 per cent in terms of quantity and 63 per cent in terms of value continued to be the largest market for coir goods during 1977-78. East European countries on the other hand accounted for only 8 per cent of the total quantity of coir exports from India. The share of America improved from 13 per cent during 1976-77 to 18 per cent in 1977-78. Exports during 1977-78 witnessed a fall in respect of West Asia and East Asia, their shares being 4 per cent and 5 per cent respectively.

Coffee

8.21 During 1977-78 India earned a record foreign exchange earnings of Rs. 230.46 crores by exporting 55000 tonnes of coffee as against 50558 tonnes of coffee worth Rs. 125.75 crores during the previous year. Data relating to the export of coffee originating from Kerala are not available. The export of coffee through Cochin Port was 15050 tonnes valued at Rs.57.68 crores in 1977-78 against 13449 tonnes valued at Rs. 33.56 crores in 1976-77. The details relating to export of coffee from India are given in Table 8.13.

TABLE 8.13
Export of Coffee from India

Year	Quantity (Tonnes)	Value (Rs. crores)
(1)	(2)	(3)
1963-64	23336	8.30
1964-65	30691	13.35
1965-66	26505	12.94
1966-67	25833	14.44
1967-68	33966	18.18
1968-69	28741	17.96
1969-70	32383	19.62
1970-71	32189	25.11
1971-72	35695	22.07
1972-73	50855	32.93
1973-74	52688	46.01
1974-75	49500	51.36
1975-76	59386	66.65
1976-77	50558	125.75
1977-78	55800	230.46

Tea

8.22 According to the Tea Board, India exported 219900 tonnes of tea during 1977-78 and earned Rs. 556.30 crores as against 292400 tonnes worth Rs. 295.25 crores during 1976-77. In 1977-78, 64322 tonnes of tea valued at Rs.127.70 crores was exported through Cochin Port as against 52360 tonnes valued at Rs. 61.05 crores during 1976-77. Table 8.14 gives the figures relating to tea exports from India.

TABLE 8.14
Export of Tea from India

Year	Quantity (Tonnes)	Value (Rs. crores)
(1)	(2)	(3)
1968-69	200824	156.51
1969-70	174112	124.50
1970-71	199139	148.25
1971-72	214317	160.92
1972-73	198229	150.99
1973-74	190268	144.85
1974-75	229500	228.06
1975-76	212300	236.81
1976-77	292400	295.25
1977-78	219900	556.30

Imports

8.23 The total imports at Cochin Port increased from 35.7 lakh tonnes in 1976-77 to 39.3 lakh tonnes during 1977-78, a near ten per cent increase (See Table 8.15). The percentage of coastal imports to total imports increased to 11.4 in 1977-78 compared to 6.6 in the previous year mainly due to the arrival of Bombay High Crude for the Cochin Refineries. Total imports constituted 76 per cent of the total traffic in 1977-78 as against 75 per cent in the preceding year. In terms of quantity significant increases in the import of petroleum crude and fertilizers were seen in 1977-78 while imports of foodgrains, coal, salt, cashewnuts etc. declined.

TABLE 8.15
Principal Imports through Cochin Port

Sl. No.	Commodity	1976-77		1977-78	
		Quantity (Tonnes)	Percentage to total	Quantity (Tonnes)	Percentage to total
(1)	(2)	(3)	(4)	(5)	(6)
1.	Rice and Paddy	2047	0.06	303	0.01
2.	Other Grains including Pulses and Flour	157391	4.40	25866	0.66
3.	Coal	178715	5.00	139229	3.55
4.	Cashewnut	51439	1.40	37802	0.96
5.	Machinery	5967	0.17	6545	0.17
6.	Iron and Steel	8975	0.25	5649	0.14
7.	Salt	13436	0.40	444	0.01
8.	Chemicals and Chemical Preparations	1503	0.05	1355	0.03
9.	Oil seeds including Copra and Groundnut	249	0.01	751	0.02
10.	Rock Phosphate and Fertilizers	178894	5.00	344128	8.77
11.	P. O. L. Items	2695046	75.50	2981660	75.96
12.	Others	276470	7.76	381679	9.72
	Total	3570132	100.00	3925411	100.00

8.24 Imports from far Eastern countries, Japan, other Asian countries, U.K., West Germany, other European countries, Canada and African countries

increased during 1977-78 while the imports from U.S.S.R., U.S.A., Australia and Newzeland recorded a declining tendency.

CHAPTER 9

SOCIAL SERVICES

Education

Kerala continues to rank first among the States of India in Educational Development as indicated by parameters like percentage of literacy, enrolment ratio, per capita expenditure on education etc. There is, on an average, one school per sq. km. in the State. While the percentage of literacy in India increased from 24 to 29 during the period 1961-71, it increased from 48 to 60 in Kerala during these period. With the sole exception of Kerala, all the States show a percentage of literacy ranging from 30 to 40 only. Nearly 95 per cent of the children in the age group 6-11 are enrolled in schools. The per capita expenditure on education in Kerala has increased from Rs. 9.56 in 1960-61 to Rs. 62.14 in 1977-78. The rising expenditure on education imposes a heavy burden on the State exchequer. Nearly 38 per cent of the annual State budget allocation is set apart for the maintenance and development of education. This proportion is only 23 per cent in India as a whole. The liberal educational policy of the State characterised by financial assistance to cover cent per cent of the recurring expenditure of the private sector institutions coupled with inescapable needs for expansion of facilities to cope with the growth of population, makes a heavy demand on the resources of the State. The details of State expenditure on education in Kerala are given in Appendix 9.17.

9.2 In respect of educational investment as a percentage of State income, Kerala is on par with advanced countries of the world. The proportion of State income devoted to education in Kerala (7 per cent) is more than double the figure for all India (3 per cent). The fast pace of educational development has aggravated the problem of educated unemployment. In spite of growing unemployment the demand for education is still on the rise. It would not be far from the truth to say, that education in Kerala is being used as 'an alternative to remaining unemployed'. This is so because the private cost of education is low and there is no opportunity cost either. A brief review of the development achieved in the various types of education during 1978-79 is attempted in the following paragraphs.

General School Education

9.3 During 1977-78, there were 11,362 schools consisting of 1,675 High Schools, 2,718 U. P. Schools and 6,969 Lower Primary Schools in the State. During 1978-79 Government have sanctioned 43 schools (23 L. P. Schools, 7 U. P. Schools and 13 High Schools) to be opened in backward areas where schooling facilities are inadequate. Out of these, 21 Government

L. P. Schools were sanctioned to be opened in Tribal areas. The total enrolment in schools has increased from 54.94 lakhs in 1977-78 to 55.38 lakhs in 1978-79. The variation in enrolment in the different stages of School education between 1977-78 and 1978-79 is shown in Table 9.1.

TABLE 9.1

Enrolment in Schools—Stage-wise

Educational level	Enrolment		Variation
	1977-78	1978-79	
(1)	(2)	(3)	(4)
Lower Primary	2650091	2544002	(-) 6089
Upper Primary	1755501	1696727	(-) 58774
Secondary	1088166	1197403	(+) 109237
Total	5493758	5538132	(+) 44374

9.4 The increase in enrolment in 1978-79 was 0.44 lakh as against 1.40 lakhs in the previous year. Table 9.1 shows that the enrolment in the Secondary stage has increased to a considerable extent. The slight fall in enrolment in the lower primary stage is largely due to a sizeable decrease in the enrolment in Standard I. In the upper primary stage there has been a significant fall during 1978-79. The inter-stage variations are partly the result of changes effected from time to time in the promotion policy. However, the large increase in enrolment at the secondary level indicates the growing tendency to pursue higher education also.

9.5 The trend in enrolment in Standard I, especially after the introduction of wholesale promotion in that Standard is of some significance. The annual intake in Standard I has been showing a stronger tendency

TABLE 9.2

Trend of Enrolment in Standard I
(1972-73 to 1978-79)

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

to decrease than to increase since 1972-73. Table 9.2 depicts the annual variation of enrolment in Standard I between 1972-73 and 1978-79. In the Kerala context, a significant fall in annual intake in Standard I, even if interspersed with slight increases in certain years, cannot but be a reflection of falling birth rates.

9.6 Between 1956-57 and 1978-79, the total number of students in primary stage (Standards I to VII) increased from 24.92 lakhs to 43.40 lakhs. In the secondary stage the corresponding increase was from 2.16 lakhs to 11.97 lakhs. The growth rate of enrolment in the secondary stage was almost five times that in the primary stage.

9.7 In the matter of girls' education, the State continues to be in the fore-front with girls constituting 48 per cent of the total enrolment in schools. Stage-wise proportions are 48.3 per cent in the L. P. Section, 47.1 per cent in the U. P. section and 47.8 per cent in the secondary section.

9.8 During 1978, 4.2 lakhs of students appeared for the S. S. L. C. examination as against 3.8 lakhs of students in the previous year. The out turn of S. S. L. C holders during 1978 was 1.64 lakhs as against 1.40 lakhs during 1977.

9.9 The total number of teachers in schools increased from 1.64 lakhs in 1976-77 to 1.67 lakhs in 1977-78, which shows an increase of 3000 teachers over the previous year. About 48 per cent of the teachers in schools are women.

Higher Education (General)

9.10 The number of Arts and Science Colleges remains unchanged at 130, of which 105 colleges are managed by private agencies. The University of Kerala has 79 Arts and Science Colleges affiliated to it. The remaining 51 Colleges are affiliated to the University of Calicut. There are no affiliated or constituent Colleges under the University of Cochin. It is significant to note that facilities for education witnessed rapid expansion during the past one and a half decades. The number of Arts and Science Colleges increased from 100 in 1966-67 to 130 in 1978-79.

9.11 The number of students in Arts and Science Colleges during 1976-77 was 1.75 lakhs which increased to 1.85 lakhs in 1977-78. Stage-wise, the figures are 1.07 lakhs (58 per cent at the Pre-degree level, 0.73 lakh (39 per cent) at the first degree level and 0.05 lakh (3 per cent) at the post graduate level. Out of the total number of students girls constitute 48 per cent.

Professional and Special Education

9.12 There was no change in the number of institutions during 1978-79. The institutions for imparting technical education in the State during 1977-78

consisted of 6 Engineering Colleges (2 in the Public sector and 3 in the private sector and one Regional Engineering College), 18 polytechnics including 3 Women's Polytechnics (12 in the Government sector and 6 in the private sector) and 21 Junior Technical Schools. In addition, there are three fine arts institutions and 125 institutions imparting training in various industrial and commercial trades. Out of these, 100 institutions are in the private sector. There are also 4 pre-vocational training centres which provide technical education to drop-outs from schools. In addition, there are 41 Industrial Training Institutes of which 12 are in the public sector. In the professional education sector, there are 19 Teacher Training Colleges, 4 Medical Colleges, 4 Ayurveda Colleges and 4 Law Colleges in the State.

9.13 Facilities for post-graduate education exist in the 2 Government Engineering Colleges and in the Regional Engineering College. The total number of students in Engineering Colleges during 1977-78 was 4201. The enrolment in polytechnics and Junior Technical Schools were 6726 and 3498 respectively during the same year.

9.14 Kerala did not lag behind the rest of India at least in the quantitative growth of technical and professional education. According to the available estimates, the existing facilities are considered adequate to meet the additional requirements of technical hands for the next five years.

Welfare of Scheduled Tribes

9.15 According to the 1971 census the tribal population of Kerala was 2.69 lakhs. It has come down to 1.93 lakhs as a result of reclassification of certain Scheduled Tribes and Scheduled Castes. The Pulayas of Malabar area have been excluded from the category of Tribes and included under Scheduled Castes. Similarly the Ulladas and Uralis of the high ranges are included under the category of Tribes.

9.16 As the vocational skills acquired by the tribal people relate to agricultural occupations, most of the tribes are agricultural labourers. The next important occupation practised by them is the collection of minor forest produce. In order to save the tribes from exploitation by contractors and middlemen Government have allowed 23 Girijan Service Co-operative Societies to collect and market minor forest produce. The marketing of the minor forest produce collected by these societies will be undertaken by the Kerala Pharmaceutical Corporation, Trichur.

9.17 Government enacted legislation for the abolition of bonded labour system during 1976. So far 702 bonded labourers belonging to Malappuram in Cannanore and Kozhikode districts have been identified. Steps for their rehabilitation and provision

of employment have also been taken. The Sub-plan already prepared in 1976 required recasting in the light of the recommendations of the Planning Commission. Therefore a revised Sub-plan corresponding to the Fifth Five Year Plan was prepared. The Annual Tribal Sub-plan for 1978-79 was also finalised. The estimated flow of funds from various sources to Sub-plan areas during 1978-79 is shown below:

1. State Plan	Rs. 93.03 lakhs
2. Special Central Assistance	Rs. 32.50 "
3. Western Ghat Development Programme	Rs. 115.23 "
4. Institutional finance	Rs. 50.00 "
5. Khadi & Village Industries	Rs. 0.59 "
Total	Rs. 291.35 lakhs

9.18 Special Central assistance allocated by the Government of India for the Sub-plan during the Fifth Plan period and the expenditure from that amount are shown in Table 9.3.

TABLE 9.3

Year	Amount allocated (Rs. lakhs)	Amount spent (Rs. lakhs)
(1)	(2)	(3)
1974-75	2.50	1.45
1975-76	15.00	15.52
1976-77	26.00	24.61
1977-78	25.00	25.17

9.19 Specific allocations were made in the budgets of the various Departments to implement scheme in the Sub-plan areas only during 1977-78. The expenditure incurred by the various Departments in the Sub-plan areas is shown in Table 9.4.

TABLE 9.4

Sector/Department	(Amount Rs. lakhs)			
	1974-75	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)
1. Agriculture Department	..	..	1.06	5.00
2. Co-operative Department	0.77	1.19	2.17	0.01*
3. Forest Department	..	..	0.23	3.70
4. P.W.D. (Roads)	..	..	10.68	10.00
5. Animal Husbandry Department	1.50	1.50	1.50	3.75
6. P. H. E. Department	5.95	2.51	3.11	..
7. Soil Conservation Department	1.58	2.19	6.20	..
8. Employment and Training	..	..	0.25	..
9. Tribal Welfare Department	2.43	7.06	9.57	20.00

* Token Provision.

9.20 During the year 1977-78 an amount of Rs. 23.60 lakhs was spent for the payment of lump sum grant and stipend to scheduled tribe students studying in the L.P., U.P. and High School classes for meeting their expenditure towards the purchase of books, dress and other school requisites. In addition to the 18 old hostels two hostels with 60 boarders each have been newly started in the departmental buildings at Chingeri and Cheeral. Free boarding and lodging facilities are provided to the boarders of the above hostels. A Folk Arts Festival was conducted at Trivandrum during 1977-78. Financial assistance worth Rs. 16,425 has been given to technically trained hands/traditional craftsmen to settle them in trades in which they are proficient. Isolated tribal pockets were selected and tribal families were provided with houses, agricultural implements, livestock etc. Six new pockets were started at (i) Gokhale Nagar in South Wynad, (ii) Mullumala in Pathanapuram, (iii) Poyyanam in Trichur District, (iv) Attathod in Ranni Division, (v) Kolikkunnu in South Wynad and (vi) Panikkalam in Talipparambu Taluk during 1977-78. Financial assistance at the rate of Rs. 800 per family was given to 80 scheduled tribe families for the purchase of agricultural implements, seeds, seedlings, livestock etc., to encourage them in agricultural operations. During 1977-78 training units for imparting training to members of scheduled tribe in forestry operations such as logging, sawing, wood works etc., were started in the Forest Divisions of Wynad, Palghat and Quilon. Stipends to ten trainees in the Travancore Plywood Factory, Punalur and three trainees in the Cashew Development Corporation, Quilon were also given during the year. During 1977-78, 414 houses and 12 wells were constructed. One new Allopathic Dispensary was started at Poomala in Idukki District during 1977-78. Thirty-eight G. R. B. Schools under the control of the Tribal Welfare Department have been converted as hostels. Rethatching grant at the rate of Rs. 50 was given to 1500 scheduled tribe families for thatching their huts. During 1977-78 an amount of Rs. 72,131 was utilised for the construction of hostel buildings at Cheeral and Agali.

9.21 The expenditure incurred during 1976-77 and 1977-78 for the various Schemes under Tribal Development is given in Table 9.5.

TABLE 9.5

Item	(Rs. lakhs)	
	1976-77	1977-78 (Provisional)
(1)	(2)	(3)
1. Plan Schemes	14.40	22.57
2. Non-Plan Schemes	70.88	78.87
3. Centrally Sponsored Schemes	6.45	8.27
4. Special Central Assistance	24.61	28.25
Total	116.34	137.76

Welfare of Scheduled Castes and Other Backward Classes

9.22 According to the 1971 Census there were 17.74 lakh persons belonging to scheduled castes. Their number is estimated to have increased to 21 lakhs now. As the major portion of the funds allotted for the welfare of backward classes is utilised for educational schemes, they have achieved notable progress in education. Education not only serves as a basic input for economic development, but also provides inner strength to the community to face new situations on terms of equality. Wastage and stagnation is very high among the scheduled caste children at the primary stage of education. Social disabilities and discrimination continue to be the biggest impediments to their economic betterment. Funds earmarked for the welfare of scheduled castes and other backward classes have been insufficient. Hence only very little leeway could be made in the economic uplift of the scheduled caste and backward classes.

9.23 Educational programmes in this sector include pre-matric scholarships and stipends, supply of books and stationery, mid-day meals, uniforms, boarding grants and starting of welfare hostels. The schemes for economic development have been largely in the nature of aids to individuals for the purchase of agricultural implements, and fertilizers, settlement of landless labourers, etc. A review of the achievements made in the past plan periods showed that the outlays in the backward class sector, though meant essentially as supplementary to the general sectoral programmes, proved to be the major source of funds for the development of these classes. A new strategy was therefore evolved to ensure flow of benefits from general sector to these people. According to this all Departments and other agencies implementing plan schemes should see that 10 per cent of the development outlay in each sector is earmarked for schemes benefiting Scheduled Castes and Scheduled Tribes. The eligibility criteria in respect of subsidy bearing schemes have been relaxed in the case of these sections.

9.24 A special cell was created in the Department of Employment to look after the employment interests of Scheduled Castes and Scheduled Tribes. As per the existing rules 10 per cent of the posts under public services are reserved for scheduled caste and scheduled tribe candidates. With a view to enhance their career prospects in public service the Government have provided for special recruitment of scheduled castes and scheduled tribes candidates direct to at least one post in the lowest gazetted cadre in each Department where the total number of posts is less than 100 and to one per cent of such posts in other Departments and also to 5 per cent of all non-gazetted posts in each Department. The Government-owned

Companies/Corporations have also introduced special recruitment of Scheduled Castes and Scheduled Tribes. The Harijan Welfare Department is running a number of training institutions to impart training to Harijans in various trades with a view to enhancing employment opportunities for the Harijans. The Pre-Extension Training Centre functioning at Ernakulam is also doing commendable service in the field by coaching up under-graduate and graduate Harijans for competitive examinations conducted for selecting candidates for jobs in Government and quasi-Government institutions.

9.25 During 1977-78 schemes like pre-matriculation scholarships, post-matriculation scholarships, boarding grants, cosmopolitan hostels, starting of nursery schools giving grants for the construction of houses, inter-caste marriage grant etc. were continued. Assistance by way of pre-matriculation scholarship was given to 3.8 lakh students and post-matriculation scholarship to about 10,700 students. One cosmopolitan hostel and 5 welfare hostels were newly started during the year 1977-78. Grants for the construction of houses were given to 2498 families. Grants worth Rs. 5.52 lakhs were given to 275 couples who lived under hard circumstances having entered into inter-caste marriage. During 1977-78 five new nursery schools were started in Harijan Colonies and settlements.

9.26 About 2 lakh students belonging to other backward classes received educational concessions during the year 1977-78.

Health

Allopathy

9.27 The State has continued to make steady progress in expanding health care facilities during 1977-78. Commendable progress has been made in raising the total bed strength in the hospitals. While the total number of hospital beds has gone up from 27607 in 1976-77 to 28862 in 1977-78, the total number of public health institutions has gone up from 888 to 893. This increase in the total number of hospital beds is reflected in the number of beds per lakh of population also in spite of the simultaneous increase in population. The number of beds per lakh of population has gone up from 113 to 116. Details regarding the number of medical institutions and beds under the allopathic system of medicine for the period 1966-67 to 1977-78 are given in Table 9.6.

TABLE 9.6
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)
1966-67	503	19,850	101
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	898	27,607	113
1977-78	893	28,862	116

9.28 In spite of the appreciable increase in the total number of hospital beds, the regional imbalances within the State continues without any noticeable change. The data given in Table 9.7 show the district-wise break up of medical institutions and number of beds per lakh of population. The bed population ratio is less than the desired norm of one per thousand population in the districts of Idukki, Malappuram, Palghat, Quilon and Cannanore in that order. Trivandrum district continued to have the maximum number of beds per lakh of population followed by the districts of Alleppey and Kottayam. The figures point to the urgent necessity for concentrating efforts in the backward districts for expanding and improving the medical care facilities.

TABLE 9.7
Bed Population Ratio

District	No. of beds per lakh of Population	
	1976-77	1977-78
(1)	(2)	(3)
Trivandrum	214	215
Quilon	71	74
Alleppey	148	153
Kottayam	133	146
Idukki	36	37
Ernakulam	111	125
Trichur	135	139
Palghat	65	66
Malappuram	39	40
Kozhikode	142	144
Cannanore	86	85
Kerala	113	116

Indigenous Medicine

9.29 During 1977-78 eleven more Ayurveda dispensaries were started, one in every district. At present there are 468 Ayurveda institutions in the State. This includes 65 Ayurveda hospitals, 2 Visha Vaidya hospitals, one hospital for mental diseases, 393 dispensaries, 5 Visha Vaidya dispensaries and 3 Sidha Vaidya dispensaries. In addition to these institutions 273 grant-in-aid Vaidyasalas are also functioning in the State. Consequent on the opening of Government dispensaries the system of giving grant-in-aid to the vaidyasalas is being given up. The total number of hospital beds remained at 1362 without any increase during the year 1977-78. The district-wise distribution of institutions and hospital beds under the Ayurveda system of medicine is given in Appendix 9.19

Homoeo

9.30 During 1977-78 no new homoeo institutions were opened in the State. The number of homoeo hospitals and dispensaries remained at 9 and 113 respectively without any change. However the bed strength in the homoeo hospital, Kozhikode, has been raised from 25 to 50. Thus the total number of the hospital beds under homoeo system of medicine has gone up from 275 to 300. At present Idukki and Quilon are the only two districts which do not have a homoeo hospital. The district-wise details regarding homoeo hospitals and dispensaries are presented in Appendix 9.20.

Medical Practitioners

9.31 The details relating to the number of medical practitioners under the different systems of medicine as on 31-3-1978 are given in Table 9.8. Substantial increase has been recorded in the number of 'A' class medical practitioners in all the three major systems of medicine viz. Allopathy, Ayurveda and Homoeo. Of the three systems the increase in the number of medical practitioners has been the maximum in Allopathy. There has been a marginal increase in the number of medical practitioners under the Sidha system while no increase has occurred under Unani system.

9.32 There is vast scope for improving the quality and efficacy of the services rendered by the existing machinery for medical care. The predominant system in the public sector being Allopathy, the improvement of this system deserves priority. Government have therefore appointed a High Power Committee under the Chairmanship of Dr. K. N. Pai to study the defects and drawbacks of the existing machinery and suggest remedial measures. The Committee has already submitted an Interim Report to Government. It is hoped that the final report will be available shortly.

TABLE 9.8
Medical Practitioners

System	Class of Registration	1976-77	1977-78
(1)	(2)	(3)	(4)
I. Allopathy	A	8739	9363
	B	635	635
	Listed	204	204
	Sub Total	9578	10204
II. Homoeopathy	A	1487	1658
	B	1489	1489
	Listed	279	279
	Sub Total	3255	3426
III. Ayurveda	A	3784	3913
	B	6101	6101
	Listed	599	599
	Sub Total	10484	10613
IV. Sidha	A	41	42
	B	1218	1218
	Listed	41	41
	Sub Total	1300	1301
V. Unani	A	Nil	Nil
	B	51	51
	Listed	5	5
	Sub Total	56	56
Grand total		24673	25600

Family welfare

9.33 The 1971 census population of Kerala which was 213.47 lakhs, is estimated to have increased to 248 lakhs by 1978. Nearly five lakhs of people are added to the State's population every year. The steady growth of population is due to the high birth rate and a rapidly declining death rate.

TABLE 9.9
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
1951	135.49	2.28
1961	169.04	2.48
1971	213.47	2.63

9.34 The figures furnished in Table 9.9 show that the population has trebled itself during the last sixty years. It can also be seen that the last decade has registered the highest rate of growth since the beginning of the current century.

9.35 As the population increases, there is pressure on educational facilities, housing and other amenities in the State. This pressure can be kept within reasonable bounds only if the population growth is checked. All the planned efforts at improvement of the standard of living of the people can succeed only to the extent population growth is reduced.

9.36 Family welfare is a wholly voluntary programme which is intended to limit the size of the family. Now it has become an integral part of a comprehensive policy covering education, health, maternity and child care, nutrition etc. Expenditure incurred on Family Welfare Programme during the last few years is given in Table 9.10.

TABLE 9.10
Expenditure on Family Welfare Programme

Year	Total Expenditure on Family Welfare (Rs. lakhs)
(1)	(2)
1966-67	88.58
1967-68	131.84
1968-69	194.72
1969-70	198.88
1970-71	227.49
1971-72	333.33
1972-73	324.27
1973-74	260.50
1974-75	259.54
1975-76	252.33
1976-77	626.52
1977-78	610.68

9.37 In the year 1976-77, the expenditure on family welfare had more than doubled compared to the previous year's expenditure. It however decreased slightly during the year 1977-78.

9.38 Substantial progress has been recorded in the number of induced abortions during 1977-78. The number of induced abortions which was 25,389 during 1976-77, increased to 28,696 during 1977-78. This shows that the method of induced abortion is gaining popularity. However, the number of vasectomy and tubectomy operations and IUD insertions recorded a steep fall during 1977-78 compared to the previous year. During 1977-78 their numbers were 15,188, 67,225 and 10,621 respectively, while the corresponding figures for the previous year were 1,29,829, 84,566 and 17,851. District-wise details of achievements under Family Welfare are given in Appendix 9.21

9.39 There has been a steep decline in the tempo of activities under family planning during 1977-78 compared to the previous year. The number of vasectomy operations done during the year was less than one eighth of the number performed during 1976-77. There has been sizeable decline in tubectomy and I.U.D insertions also. The only area where a slight improvement was recorded in the physical achievement was induced abortion.

9.40 In the context of the heavy pressure of population in the State and the high rate of growth of population, the slackening of population control measures is a most disquieting situation. None of the major economic problems of Kerala can be solved if population increase at the present rate is allowed to persist. It is true that the State has achieved notable success in bringing down the birth rate. But this has not shown its full impact on the rate of growth of population because the death rate was also falling quite rapidly. Now that the death rate has reached as low a level as 8.5 per 1000 population, the stage is set for making an all-out effort to arrest the growth of population. It would therefore be most unfortunate if population control activities, particularly sterilisation programmes, are allowed to suffer a set back on any account. The very fact that expenditure on family planning remains more or less at the previous year's level shows that a strong infrastructure and machinery already created continues to exist in tact in spite of the steep fall in physical achievement. From the economic point of view, this is a most regrettable case of idle capacity existing in a situation where even large scale expansion of facilities and services are warranted.

Social Welfare

9.41 Social Welfare schemes deserve special attention compared to other social service schemes in so

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far as their benefit goes exclusively to the socially, economically and physiologically handicapped sections of the population. These weaker sections require supplementary supporting service in addition to the general programmes. During the last two decades, the social welfare activities have contributed substantially to the development and rehabilitation of these vulnerable groups. With the formation of the State Social Welfare Department in 1975-76, all welfare schemes for women and children, the physically handicapped, the orphans, destitutes and the aged have been brought under its control. This has helped better implementation, closer supervision and co-ordination of social welfare schemes. The activities and achievements in the field of Social Welfare during 1978 are summarised below.

Child Welfare.

9.42 Children are primarily and basically an asset to the society in general. They constitute the nations' potential human resources. As much, they are to be provided with a wholesome social environment congenial to healthy physical and psychological growth. It was with this end in view that the National Policy for Children evolved its strategy giving much emphasis to the quality improvement of children through health education, immunisation, ante natal care etc. In conformity with this strategy, the activities in the fields like Special Nutrition Programme, World Food Programme, Maintenance of Feeding Centres, Day Care Centres, Homes for Mentally Deficient Children, Integrated Child Development Services, Balawadies, etc., were continued during the year 1977-78.

9.43 Under the direct control of Government there are about 8 institutions (under the categories of Children's Home, Care Home for Disabled children, Shelter for Waifs and Strays, Home for Mentally Deficient Children), benefiting about 285 children. Further, there are 6 I.C.D.S. projects and 20 Day Care Centres benefiting about 57,200 and 1,000 children respectively. Besides there are 1000 centres benefiting 2 lakhs of children under the Special Nutrition Programme and 2000 centres benefiting another 2 lakh children under the World Food Programme. In addition to this, there are about 233 aided and 86 unaided orphanages in the private sector benefiting 26,651 orphans.

9.44 In view of the importance of child welfare, Government have constituted a State Board for Children with the Chief Minister as Chairman for watching the progress of the Child Welfare Programmes and giving guidance and advice to the Government and the Departments in the matter of Child Welfare activities.

Women Welfare.

9.45 Women are to be provided with opportunities to contribute their share in the socio-economic development of the nation. They are to be equipped with a minimum level of knowledge in the fields of education, health, nutrition and family welfare, socio-economic background of the State and the nation and a sense of confidence and dedication. The programmes formulated and implemented during 1978 in the fields of non-formal education, vocational training, health and family welfare etc. have yielded commendable results by way of improvement in the attitude and outlook of women towards socio-economic problems.

9.46 There are 10 Abalamandirs with an enrolment of 240 inmates, 3 Rescue Homes with 270 inmates, one After Care Home and one Home for Physically Handicapped with a strength of 35 each. Besides, large number of women are deriving benefit from the working of vocational training centres, kshemakendras, functional literacy centres etc. Programmes for the training and rehabilitation of the handicapped, care and protection of the orphan, destitutes, the aged and the beggars and the probation service progressed well during 1978. Table 9.11 provides details of the activities and achievements of Social Welfare programmes during the year 1977 and 1978.

TABLE 9.11
Activities and Achievements under Social Welfare

Institutions	1977		1978		Remarks
	No. of Institutions	No. of Beneficiaries	No. of Institutions	No. of Beneficiaries	
(1)	(2)	(3)	(4)	(5)	(6)
Government Institutions					
<i>Institutions for Child Welfare</i>					
1. Children's Home, Mavelikkara	1	37	1	39	..
2. Care Home for Disabled Children	2	44	2	59	..
3. Shelter for Waifs and Strays	2	99	2	122	..
4. Custodial Care Home for Disabled Children	1	7	1	10	..
5. Home for Mentally Deficient	2	47	2	55	..
<i>Institutions for Women's Welfare</i>					
6. Abalamandirs	10	211	10	240	..
7. Rescue Home	3	261	3	270	..
8. After Care Hostel for Women	1	29	1	35	..
9. Home for Physically Handicapped	1	25	1	35	..
<i>After Care Home</i>					
10. After Care Homes	6	187	6	300	..
<i>Institutions for the Old and infirm</i>					
11. Home for Physically Handicapped	2	35	2	40	..
12. Vocational Training Centres	2	78	2	85	..
13. Beggar Home	1	29	1	17	..
Private Institutions					
1. Orphanages	22	1476	25	1651	Central Sector Scheme grants are paid to them from Government of India through this Department. Applications for grant to about 25 Orphanages are pending with Government of India.
2. Orphanages	208	25,000	208	25,000	State Sector proposal for the payment of grants to new Orphanages for 1978-79 is under the consideration of State Government.
3. Home for the aged and infirm	35	2,050	35	2,050	do.
4. Founding Homes	5	500	5	500	do.
5. Beggar Homes	4	500	4	500	do.
6. Unaided Orphanages	86	..	86	..	These are the Orphanages recognised by the Board of control for Orphanages. No grants are given to them.
Nutrition (Government)					
1. Special Nutrition Programme					
2. World Food Programme	1,000	2 lakhs	1,000	2 lakhs	
	1,000	1 lakh	2,000	2 "	
Other Institutions (Government)					
1. I.C.D.S. (Integrated Child Development Service Projects)	3	32,200	6	57,200	
2. Day Care Centres	11	550	20	1,000	

Water Supply

9.47 Water supply schemes have made good progress during 1977-78 compared to the previous year. The number of towns having protected water supply at the end of 1976-77 was 28. One more water supply scheme was completed and seven schemes were under construction at the end of 1977-78. Now the total number of towns having protected water supply is 29.

9.48 Under rural water supply, 609 schemes were in operation at the end of 1976-77. Fifty-four rural water supply schemes were completed during 1977-78 as against 30 during the previous year. About 27 per cent of the rural population have been benefited by the water supply schemes.

9.49 Many of the water supply schemes were financed by the Life Insurance Corporation of India. A total expenditure of Rs. 172.51 lakhs was incurred during 1977-78, while the expenditure was Rs. 472.66 lakhs in the previous year. The fall in expenditure during 1977-78 was primarily due to the progress already made in the implementation of water supply schemes, particularly in the urban sector. There has been substantial progress in respect of rural water supply also. It may however be noted that it has not become possible to avail institutional finance for implementing rural water supply schemes. The use of borrowed money in this regard will have to be confined to developing townships with notable urban characteristics.

Housing

9.50 Providing housing facilities to the rapidly increasing population of the State has become a serious problem. In the urban areas shortage of suitable lands to put up houses adds a new dimension to the housing problem. In the rapidly developing urban areas, getting house-sites at reasonable prices has become so difficult that fixed income groups of moderate means can hardly aspire to own a house in such areas. Any programme designed to solve a problem of such magnitude requires huge investment.

9.51 With the increase in the shortage of housing facilities, there has been considerable expansion of activities of the agencies implementing housing programmes. However, the major agency in the field is Kerala State Housing Board. The Government have also been operating a number of housing schemes.

9.52 The major housing schemes implemented by the 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.
- (iv) Industrial Housing Scheme.

The total number of houses constructed and the amount disbursed so far under these housing schemes are given in Table 9.12.

TABLE 9.12
Progress under Housing Scheme

Items	Low income group	Middle income group	Village Housing Project	Industrial Housing Scheme
(1)	(2)	(3)	(4)	(5)
1. No. of Houses sanctioned upto 3/78	7012	1549	8778	1682
2. No. of Houses constructed upto 3/78	6396	1254	7209	1200
3. Total amount disbursed upto 3/78 (Rs. lakhs)	461.88	288.29	221.60	..

Housing Board

9.53 The Housing Board has so far taken up 50 housing schemes involving the construction of about 7800 houses for different categories of people costing in all Rs. 16 crores. The Board has undertaken Public Housing Schemes in all districts except Malappuram. Under this scheme lands are acquired and developed providing necessary roads and open areas. It is divided into plots and offered to Economically Weaker Sections, Low Income Groups and Middle Income Groups for constructing residential buildings. Twenty per cent of the total cost of land and building is realised in advance, and the balance in instalments spread over in 12 years for M.I.G. and 15 years for L.I.G. In the case of the Economically Weaker Sections the initial deposit is only 10 per cent of the total cost and the repayment period is 20 years. The rates of interest charged for different income groups vary from 5 per cent to 10.5 per cent. During 1977-78 construction works are in progress under 25 schemes. A total number of 277 buildings were completed during the year (till 30-11-1978) to benefit different categories of persons. The Board also took up construction work of 1253 new buildings during the year under different schemes.

Aided self-help Co-operative Housing Scheme for Economically Weaker Sections in Rural Areas.

9.54 This is a new Scheme formulated jointly by the Government and the Housing Board. The scheme envisages the construction of one lakh houses within a period of two years at the rate of 25,000 houses every 6 months. Under this scheme financial assistance will

be given to people belonging to the economically weaker sections for construction of houses costing Rs. 3600 each. This will be implemented by the Government of Kerala, the Kerala State Housing Board, the Kerala State Co-operative Bank, the District Co-operative Bank and the Primary Co-operative Societies in collaboration with each other. The sources of finance for the scheme are as follows:—

	Rs. per House
1. Loan from HUDCO ..	1800
2. Loan from Co-operative Bank ..	800
3. Grant from Government ..	500
4. Contribution from the Beneficiary ..	500
Total	3600

About 12,000 houses are under various stages of construction under this programme.

Direct Loan Scheme of the Board

9.55 Of late the Board has formulated a scheme for giving direct loan to the people whose annual income does not exceed Rs. 18,000. Under the scheme loans up to Rs.25,000 or 80 per cent of the cost of construction whichever is less will be granted to the applicants. About 1820 applications for loan have been received till 15-6-1978, the last date fixed for the receipt of applications. These applications have been scrutinised by the Board and kept ready for sanction on receipt of funds. The Kerala Teddy Workers Welfare Fund

Board has agreed to give a loan of Rs. 2 crores for this scheme at 9 per cent interest, repayable in 10 years

9.56 The Board has also proposed a housing scheme exclusively for Working Journalists at the District headquarters. A housing scheme for the journalists of Kottayam has been finalised and pending before HUDCO for financial assistance.

9.57 The Chengal Choola Housing Scheme at Trivandrum undertaken by the Housing Board has been partially implemented. The work was started in December 1977 and 168 houses have been completed and given to the beneficiaries in October 1978. The construction of houses under the second stage has already been started. The total number of houses proposed to be constructed under the scheme is 700 which will be completed by October 1979.

9.58 The Government have also decided to implement slum clearance in all the three cities viz. Trivandrum, Cochin and Calicut. A programme to build 5000 houses for the slum dwellers in Cochin within a period of five years has already been drawn up.

9.59 In order to reduce the housing shortage in the major cities of the State, the Government have decided to develop satellite towns near the rapidly developing urban centres. The construction work of the first such town has been started at Thrikkakara, Cochin. The scheme provides for 1000 houses with essential facilities like shopping centres, schools, cinema theatres, bus shelters and dispensaries.

APPENDIX

STATISTICAL TABLES

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APPENDIX 2.1

Growth of Net Domestic Product in 1975-76 and 1976-77—Kerala and India

(Rs. Crores)

Sector	Kerala					India				
	1974-75	1975-76	Rate of growth (Per cent)	1976-77	Rate of growth (Per cent)	1974-75	1975-76	Rate of growth (Per cent)	1976-77	Rate of growth (Per cent)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
		(i) At Current Prices					(i) At Current Prices			
1. Primary Sector	1109	1080	(—) 2.8	1135	5.1	28925	27460	(—) 5.1	28358	3.3
2. Secondary Sector	246	256	4.1	291	11.4	12265	13564	10.6	15470	14.0
3. Transport, Communication and Trade	349	408	16.9	458	11.2	10097	11314	12.0	12454	10.1
4. Finance and Real Estate	79	93	17.7	112	20.4	2747	3289	19.0	3797	16.1
5. Community and Personal Services	249	297	19.3	323	8.7	5572	6257	12.3	6714	7.3
6. Tertiary Sector (3+4+5)	677	798	17.9	893	11.9	18416	20840	13.2	22965	10.2
7. Total Net Domestic Product	2032	2134	5.0	2319	8.7	59606	61864	3.8	66793	8.0
8. Per Capita Income (Rs.)	884	909	2.8	968	6.5	1004	1020	1.6	1081	6.0
		(ii) At constant (1960-61) Prices					(ii) At Constant (1970-71) Prices			
1. Primary Sector	330	328	(—) 0.6	309	(—)5.8	16985	18889	11.2	17849	(—)5.5
2. Secondary Sector	126	130	3.2	139	6.9	7682	8153	6.1	8998	10.4
3. Transport, Communication and Trade	109	111	1.8	111	0.0	6173	6746	9.3	7124	5.6
4. Finance & Real Estate	29	31	6.9	34	9.7	1855	2021	8.9	2222	9.9
5. Community and Personal Services	93	98	5.4	104	6.1	3931	4131	5.1	4287	3.8
6. Tertiary Sector (3+4+5)	231	240	3.9	249	3.7	11959	12898	7.8	13633	5.7
7. Total: Net Domestic Product	687	698	1.6	697	(—)0.1	36626	39940	9.0	40480	1.4
8. Per Capita Income (Rs.)	299	297	(—) 0.7	291	(—)2.0	618	660	6.8	656	(—)0.6

APPENDIX 2.2

Net State Domestic Product at Factor Cost by Industry of Origin—Kerala (At Current Prices)

(Rs. lakhs)

Industry/Sector	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Primary Sector	67249	61907	74383	101144	110857	108048	113335
2. Secondary Sector	16921	18449	19918	22970	24619	25592	29067
3. Transport, Communication and Trade	20037	21693	24886	28475	34941	40799	45786
4. Finance and Real Estate	4208	5065	5430	6803	7874	9321	11172
5. Community and Personal Services	14856	16029	17677	20413	24891	29664	32915
6. Tertiary Sector (3+4+5)	39101	42787	47993	55691	67706	79784	88273
7. Total: Net State Domestic Product	122671	123143	142294	179805	203182	219424	231875
Index (1970-71=100)	100.0	100.4	116.0	146.6	165.6	174.0	189.0
8. Per Capital Income (Rs.)	584	573	647	800	884	909	968
Index (1970-71=100)	100.0	98.1	110.8	137.0	151.4	155.6	165.8

APPENDIX 2.3

Net State Domestic Product at Factor Cost by Industry of Origin—Kerala (At 1960-61 prices)

(Rs. lakhs)

Industry/Sector	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Primary Sector	31697	32124	32367	32307	33029	32814	30893
2. Secondary Sector	10680	12007	12582	12686	12593	12962	13916
3. Transport, Communication and Trade	9956	10236	10374	10398	10856	11100	11086
4. Finance and Real Estate	2301	2624	2708	2847	2854	3101	3421
5. Community and Personal Services	7706	8127	8568	9353	9345	9790	10351
6. Tertiary Sector (3+4+5)	19963	20987	21650	22598	23055	23991	24858
7. Total: Net State Domestic Product	62340	65118	66599	67591	68677	69767	69667
Index (1970-71=100)	100.0	104.5	106.8	108.4	110.2	111.9	111.7
8. Per Capita Income (Rs.)	297	303	303	301	299	297	291
Index (1970-71=100)	100.0	102.0	102.0	101.3	100.7	100.0	98.0

APPENDIX 2.4

Net Domestic Product at Factor Cost by Industry of Origin—India (At Current Prices)

(Rs. Crores)

Industry/Sector	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)
1. Primary Sector	17,320	17,961	19,742	26,595	28,925	27,460	28,358	31,582
2. Secondary Sector	6,876	7,563	8,307	9,569	12,265	13,564	15,470	16,996
3. Transport, Communication and Trade	5,488	5,991	6,622	7,997	10,097	11,314	12,454	13,926
4. Finance and Real Estate	1,683	1,881	2,096	2,395	2,747	3,269	3,797	4,239
5. Community and Personal Services	3,285	3,640	3,957	4,434	5,572	6,257	6,714	7,366
6. Tertiary Sector (3 + 4 + 5)	10,456	11,512	12,675	14,826	18,416	20,840	22,965	24,871
7. Total: Net Domestic Product at Factor Cost	34,652	37,036	40,724	50,990	59,606	61,864	66,793	73,989
8. Net National Product at Factor Cost	34,368	36,745	40,422	50,665	59,315	61,609	66,561	73,137
Index (1970-71 = 100)	100.0	106.9	117.6	147.4	172.6	179.3	193.7	212.9
9. Per Capita Income (Rs.)	635	663	714	875	1004	1020	1081	1163
Index (1970-71 = 100)	100.0	104.4	112.4	137.7	158.0	160.6	170.1	183.1

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
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Primary Sector	17320	17220	16148	17346	16985	18889	17849	19753
2. Secondary Sector	6876	7053	7287	7432	7682	8153	8998	9425
3. Transport, Communication and Trade	5488	5644	5750	5963	6173	6746	7124	7456
4. Finance and Real Estate	1683	1782	1856	1892	1855	2021	2222	2376
5. Community and Personal Services	3285	3479	3604	3737	3931	4131	4287	4476
6. Tertiary Sector (3 + 4 + 5)	10456	11175	11210	11592	11959	12898	13633	14308
7. Total: Net Domestic Product at Factor Cost	34652	35178	34645	36370	36626	39940	40480	43486
8. Net National Product at Factor Cost	34368	34865	34934	36134	36504	39849	40395	43395
Index (1970-71 = 100)	100.0	101.4	99.9	105.1	106.2	115.9	117.5	126.3
9. Per Capita Income (Rs.)	635	629	607	624	618	660	656	690
Index (1970-71 = 100)	100.0	99.1	95.5	98.2	92.7	103.9	103.2	108.6

APPENDIX 2.6

District Income of Kerala at Current Prices

District	1970-71		1975-76		1976-77	
	Amount (Rs. lakhs)	Percentage share	Amount (Rs. lakhs)	Percentage share	Amount (Rs. lakhs)	Percentage share
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trivandrum	11,895	9.7	22,314	10.5	23,933	10.3
2. Quilon	15,039	12.3	28,321	13.3	26,425	11.4
3. Alleppey	11,801	9.6	19,326	9.0	20,533	8.9
4. Kottayam	10,149	8.3	18,294	8.6	18,936	8.2
5. Idukki	4,698	3.8	8,994	4.2	9,886	4.3
6. Ernakulam	13,629	11.1	23,603	11.1	27,395	11.8
7. Trichur	11,525	9.4	18,994	8.9	21,449	9.2
8. Palghat	9,267	7.6	16,331	7.6	15,499	6.7
9. Malappuram	8,872	7.2	14,565	6.8	17,685	7.6
10. Kozhikode	12,772	10.4	21,055	9.9	23,915	10.3
11. Cannanore	13,024	10.6	21,627	10.1	26,199	11.3
Kerala	122,671	100.0	213,424	100.0	231,875	100.0

APPENDIX 2.7

Sectoral Contribution of District Income at Current Prices 1970-71 and 1976-77

(Per cent)

District (1)	1970-71				1976-77			
	Primary (2)	Secondary (3)	Tertiary (4)	Total (5)	Primary (6)	Secondary (7)	Tertiary (8)	Total (9)
1. Trivandrum	48.5	12.0	39.5	100.0	43.1	11.0	45.9	100.0
2. Quilon	62.7	12.2	25.1	100.0	54.3	12.6	33.1	100.0
3. Alleppey	56.2	9.9	33.9	100.0	46.4	10.1	43.5	100.0
4. Kottayam	59.3	11.0	29.7	100.0	54.7	10.7	34.6	100.0
5. Idukki	68.8	12.0	19.2	100.0	71.6	10.5	17.9	100.0
6. Ernakulam	38.3	27.0	34.7	100.0	32.7	23.8	43.5	100.0
7. Trichur	49.0	17.1	33.9	100.0	42.4	16.1	41.5	100.0
8. Palghat	39.5	10.6	29.9	100.0	47.9	11.3	40.8	100.0
9. Malappuram	63.0	6.7	30.3	100.0	61.4	5.8	32.8	100.0
10. Kozhikode	53.6	11.8	34.6	100.0	47.3	11.2	41.5	100.0
11. Cannanore	56.5	11.4	32.1	100.0	54.3	9.7	36.0	100.0
Kerala	54.8	13.3	31.9	100.0	49.0	12.5	39.5	100.0

APPENDIX 2.8

Percentage Decadal Variation of Population during 1911-1971 (State-wise)

States (1)	1911 (2)	1921 (3)	1931 (4)	1941 (5)	1951 (6)	1961 (7)	1971 (8)
1. Andhra Pradesh	+12.49	-0.13	+12.99	+12.75	+14.02	+15.65	+20.90
2. Assam	+16.84	+20.19	+20.05	+20.45	+20.12	+34.99	+34.71
3. Bihar	+3.67	-0.66	+11.45	+12.20	+10.27	+19.76	+21.38
4. Gujarat	+7.79	+3.79	+12.92	+19.25	+18.69	+26.88	+29.30
5. Haryana	-9.70	+1.95	+7.14	+15.63	+7.60	+33.79	+32.33
6. Himachal Pradesh	-1.22	+1.65	+5.23	+11.54	+5.42	+17.87	+23.04
7. Jammu & Kashmir	+7.16	+5.75	+10.14	+10.36	+10.42	+9.44	+29.85
8. Karnataka	+3.60	-1.09	+9.38	+11.09	+19.36	+21.57	+24.22
9. Kerala	+11.75	+9.16	+21.85	+16.04	+22.82	+24.76	+28.30
10. Madhya Pradesh	+15.30	-1.38	+11.39	+12.34	+8.67	+24.17	+28.67
11. Maharashtra	+10.74	-2.91	+14.91	+11.99	+19.27	+23.60	+27.48
12. Manipur	+21.71	+10.92	+16.04	+14.92	+12.80	+35.04	+37.88
13. Meghalaya	+15.71	+7.21	+13.83	+15.59	+8.97	+27.03	+31.30
14. Nagaland	+46.76	+6.55	+12.62	+6.04	+8.60	+14.07	+29.88
15. Orissa	+10.44	-1.94	+11.94	+10.22	+6.38	+19.82	+25.85
16. Punjab	-10.78	+6.26	+12.02	+19.82	-4.58	+21.56	+21.79
17. Rajasthan	+6.70	-6.29	+14.14	+18.01	+15.20	+26.20	+27.89
18. Sikkim	+48.98	-7.05	+34.37	+10.67	+13.34	+17.76	+29.30
19. Tamil Nadu	+8.57	+3.47	+8.52	+11.91	+14.66	+11.85	+22.30
20. Tripura	+32.48	+32.59	+25.63	+34.14	+24.56	+78.71	+36.30
21. Uttar Pradesh	-0.97	-3.08	+6.66	+13.57	+11.82	+16.66	+18.78
22. West Bengal	+6.25	-2.91	+8.14	+22.93	+13.22	+32.80	+28.87
All-India	+5.75	-0.31	+11.00	+14.22	+13.31	+21.51	+24.89

APPENDIX 2.9

Estimated Annual Birth and Death Rates 1974-77 (State-wise)

States	Birth Rate				Death Rate			
	1974	1975	1976	1977*	1974	1975	1976	1977*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Andhra Pradesh	34.6	34.9	33.7	34.1	15.3	15.2	14.5	14.5
2. Assam	32.8	30.1	32.8	32.3	16.8	16.9	14.9	14.3
3. Bihar	28.7	27.7	31.1	..	15.9	13.3	12.1	..
4. Gujarat	38.4	37.0	37.4	37.4	13.0	15.4	15.3	16.1
5. Haryana	39.5	38.0	36.3	37.1	12.6	12.3	12.8	13.4
6. Himachal Pradesh	34.9	32.7	32.5	32.8	12.3	13.2	13.5	14.4
7. Jammu & Kashmir	29.2	31.9	32.1	30.6	9.9	12.6	11.3	10.7
8. Karnataka	28.0	27.7	29.4	29.6	10.8	11.1	11.7	11.7
9. Kerala	26.8	28.0	27.8	27.0	7.8	8.4	8.1	7.5
10. Madhya Pradesh	36.6	40.3	39.8	41.4	15.8	18.5	16.5	17.8
11. Maharashtra	29.0	29.7	29.3	29.0	11.5	11.4	11.3	12.2
12. Manipur	25.0	24.5	25.3	24.2	8.3	5.6	6.9	7.0
13. Meghalaya	..	..	33.5	34.6	..	..	15.5	16.3
14. Nagaland	24.6	19.5	20.3	20.6	9.3	9.5	8.3	8.4
15. Orissa	33.6	33.6	34.8	34.6	15.8	17.7	15.8	16.8
16. Punjab	32.0	31.8	31.6	30.3	10.6	10.8	11.0	10.7
17. Rajasthan	36.3	36.9	33.4	32.5	14.3	15.9	14.7	14.7
18. Tamil Nadu	29.2	30.7	30.7	30.6	13.9	15.0	14.6	14.1
19. Tripura	32.2	29.2	34.7	31.9	12.0	9.4	10.2	9.4
20. Uttar Pradesh	42.1	43.1	40.0	41.8	19.7	22.6	20.5	20.4
21. West Bengal	28.0	28.7	31.9	..	12.4	13.0	11.9	..
All India	34.5	35.2	34.4	34.8	14.5	15.9	15.0	15.2

* Provisional

Note.—1. The figures for 1974 & 1975 for Assam include Meghalaya.

2. The figures for Nagaland correspond to Rural Population only.

Source: Sample Registration Bulletin Vol. XII No. 1 June 1978, Registrar General, India, Ministry of Home Affairs, New Delhi.

APPENDIX 2.10

Birth and Death Rates of Kerala and All-India—Rural Urban and combined

Year	Birth Rate						Death Rate					
	Kerala			All-India			Kerala			All-India		
	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1970	31.9	30.1	31.6	38.9	29.7	36.8	9.2	8.8	9.2	17.3	10.2	15.7
1971	31.3	29.6	31.1	38.9	30.1	36.9	9.1	8.4	9.0	16.4	9.7	14.9
1972	31.5	29.5	31.2	38.4	30.5	36.6	9.4	7.8	9.2	18.9	10.3	16.9
1973	29.3	28.4	29.1	35.9	28.9	34.6	8.6	7.2	8.4	17.0	9.6	15.5
1974	26.7	26.9	26.8	35.9	28.4	34.5	8.0	7.0	7.8	15.9	9.2	14.5
1975	28.1	27.5	28.0	36.7	28.5	35.2	8.5	7.8	8.4	17.3	10.2	15.9
1976	28.1	26.5	27.8	35.8	28.4	34.4	8.2	7.6	8.1	16.3	9.5	15.0
1977*	27.3	25.0	27.0	36.2	28.3	34.8	7.5	7.5	7.5	16.6	9.4	15.3

* Provisional

Source: Sample Registration Bulletin, Vol. VIII, No. 2 July, 1974 and Vol. XII, No. 1 June 1978.

APPENDIX 2.11

Estimate of Infant Mortality Rates in Different States in India 1971

States	Infant Mortality Rates (No. per 1000 live births)	
	Rural	Urban
(1)	(2)	(3)
1. Andhra Pradesh	112.6	68.7
2. Assam	131.4	72.6
3. Bihar	..	69.5
4. Gujarat	145.1	108.7
5. Haryana	64.0	52.0
6. Jammu & Kashmir	74.1	49.4
7. Karnataka	96.5	64.9
8. Kerala	58.1	45.0
9. Madhya Pradesh	141.3	75.6
10. Maharashtra	107.1	82.2
11. Orissa	132.9	79.1
12. Punjab	108.0	71.7
13. Rajasthan	112.8	74.2
14. Tamil Nadu	127.0	91.0
15. Uttar Pradesh	100.5	121.4
16. West Bengal	173.4	68.9
All India	131.0	81.0

Source: Sample Registration Bulletin, Vol. 7, No. 1, January-March, 1973 and Vol. 8, No. 1 April 1974.

APPENDIX 2.12

Expectation of life in years for selected ages—Kerala.
(Based on age specific death rates for 1973,74
and 1975.)

Age	All	Male	Female
(1)	(2)	(3)	(4)
0	63.18	60.91	63.26
1	66.03	63.70	66.93
5	64.63	61.98	65.08
10	60.36	57.57	60.72
15	55.63	52.82	56.00
20	50.92	48.04	51.36
25	46.34	43.46	46.76
30	41.88	38.95	42.31
35	37.39	34.52	37.73
40	32.98	30.39	33.26
45	28.67	26.21	28.76
50	24.56	22.23	24.91
55	20.74	18.53	20.81
60	16.09	15.05	16.27
65	12.25	11.88	12.61
70	9.43	9.25	9.61

Source: Bureau of Economics and Statistics, Kerala.

APPENDIX 3.1

Index Numbers for wholesale prices—All India—1978

(Base 1970-71 = 100)

Item	January	February	March	April	May	June	July	August	Sept- ember	Octo- ber	Novem- ber	Decem- ber
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Primary Articles	183.2	179.2	179.1	179.4	181.2	181.6	184.4	184.0	182.6	183.2	181.6	179.2
Food Articles	174.7	170.5	170.8	171.9	173.6	173.6	177.4	177.8	175.3	175.4	172.9	167.9
Cereals	161.5	159.2	158.5	156.9	155.9	158.1	159.3	158.2	157.5	156.6	156.6	155.8
Pulses	238.9	239.6	248.6	233.1	228.1	238.8	238.9	249.4	265.6	270.8	268.5	256.9
Fruits and Vegetables	171.3	160.2	159.5	167.5	170.6	164.0	176.6	175.9	165.0	164.1	157.6	145.1
Milk and Milk Products	155.6	156.1	156.6	159.4	169.3	166.6	171.5	172.1	165.7	168.2	164.5	161.9
Non-food Articles	171.9	168.1	167.0	164.8	166.9	168.6	168.9	166.8	168.0	170.0	171.0	171.9
Fibres	180.6	176.5	176.5	174.6	174.6	174.0	172.5	168.5	167.0	167.6	168.6	166.9
Oil Seeds	172.6	163.6	160.9	157.7	162.0	165.8	164.9	163.8	165.4	158.8	159.3	156.8
Fuel, Power, Light & Lubricants	234.1	234.1	242.0	241.6	241.6	243.9	245.0	245.0	245.0	245.2	245.4	245.9
Manufactured Products	177.6	174.5	176.0	174.7	174.4	177.3	178.7	179.1	179.2	180.1	181.5	180.8
Food Products	170.6	160.8	162.2	156.9	154.6	160.3	160.3	162.0	160.3	160.8	162.8	158.9
Textiles	176.5	176.2	176.7	175.0	174.0	173.0	176.0	175.0	176.4	177.7	179.5	180.1
Chemicals and Chemical Products	172.6	172.8	174.5	175.1	175.3	175.8	175.8	176.0	176.1	176.7	177.1	177.7
Basic Metals, Alloys & Metal Products	194.6	194.7	197.2	197.0	197.2	207.2	211.3	211.7	212.8	214.6	215.0	214.5
All Commodities	184.4	181.5	182.9	182.4	182.9	184.7	186.7	186.7	186.2	186.9	186.9	184.8

APPENDIX 3.2

Consumer price index numbers for Industrial Workers in India—1978 (Base 1960=100)

Centre	January	February	March	April	May	June	July	August	Sept-ber	October	Novem-ber
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Ahmedabad	315	311	314	314	320	324	320	321	326	..	..
2. Bangalore	333	333	333	331	334	336	336	334	341	..	..
3. Bombay	319	314	316	320	323	325	325	325	327	....	..
4. Calcutta	313	304	310	311	311	319	329	333	343	..	..
5. Coimbatore	323	317	315	314	317	321	321	328	327	..	..
6. Delhi	359	355	359	360	361	364	369	369	376	..	..
7. Hyderabad	344	340	340	337	334	338	342	340	344	..	..
8. Madras	322	319	315	308	305	310	314	314	313	..	..
9. Mundakayam	320	306	304	300	305	305	303	313	311	..	..
10. Nagpur	318	309	311	312	313	319	323	324	334	..	..
11. Alwaye	322	318	317	317	322	352	333	336	335	..	..
11. All India	325	320	321	322	323	327	330	331	336	340	340

APPENDIX 3.3

Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial Workers—Kerala

Index Numbers for the Months of January to December—1978 (Base 1970=100)

Centre	January	February	March	April	May	June	July	August	Sept-ember	Octo-ber	Novem-ber	Decem-ber
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Trivandrum	162	160	160	161	163	166	168	169	170	170	171	171
2. Quilon	163	161	161	162	164	167	169	170	171	171	172	171
3. Punalur	160	157	157	158	160	162	163	163	162	161	161	162
4. Alleppey	159	156	155	157	160	163	164	164	164	163	164	164
5. Kottayam	157	156	157	159	162	165	166	166	165	164	164	163
6. Mundakayam	157	154	153	154	156	158	158	159	160	161	162	163
7. Munnar	176	174	173	173	174	175	175	175	175	176	177	177
8. Ernakulam	159	157	157	158	160	163	165	166	166	166	165	164
9. Chalakkudy	160	159	160	161	163	166	168	168	168	168	168	168
10. Trichur	161	159	160	162	164	167	169	169	170	170	169	169
11. Palghat	163	160	158	161	163	164	165	166	165	164	163	164
12. Malappuram	164	162	160	160	163	165	167	166	166	165	166	167
13. Kozhikode	164	163	164	166	169	172	174	175	175	175	174	174
14. Meppadi	168	166	166	167	169	170	172	171	172	171	172	172
15. Cannanore	159	158	159	162	165	167	167	167	167	166	165	165

APPENDIX 3.4

Statement showing the State Average of Retail Prices of Essential Commodities—1978

(In Rs.)

Commodity	Unit	27-1-1978	24-2-1978	31-3-1978	28-4-1978	26-5-1978	30-6-1978	28-7-1978	25-8-1978	29-9-1978	27-10-1978	24-11-1978	29-12-1978
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Rice (O. M.)	kg.	2.11	2.06	2.08	2.11	2.13	2.19	2.20	2.27	2.14	2.11	2.14	2.15
2. Greengram	"	3.47	3.48	3.76	3.83	3.98	4.22	4.28	3.91	3.80	3.86	4.04	4.13
3. Blackgram	"	3.32	3.27	3.27	3.38	3.48	3.60	3.58	3.59	3.67	3.64	3.69	3.70
4. Redgram	"	2.87	2.82	2.73	2.78	2.77	2.83	2.82	2.90	2.98	3.06	3.11	2.97
5. Dhali	"	5.05	4.90	4.97	4.96	4.92	5.10	5.09	5.09	5.55	5.63	5.65	5.42
6. Coconut Oil	"	11.71	11.60	11.33	11.61	11.96	13.17	12.93	12.95	14.11	13.92	13.91	12.46
7. Groundnut Oil	"	9.52	9.19	9.23	9.09	8.96	8.43	8.43	8.43	8.41	8.48	8.48	8.57
8. Refined Oil	"	11.86	11.83	12.60	11.89	12.35	12.77	12.05	11.82	12.25	12.06	12.11	12.02
9. Gingelly Oil	"	10.74	10.58	10.60	10.64	10.20	9.68	9.40	9.30	9.19	9.45	9.47	9.40
10. Tapioca	"	0.50	0.48	0.46	0.49	0.49	0.49	0.49	0.52	0.53	0.54	0.53	0.53
11. Chennai	"	0.87	1.03	1.07	1.10	1.32	1.10	0.96	0.90	0.83	0.85	0.85	0.83
12. Banana (green)	"	1.92	2.25	2.23	2.09	2.32	2.41	2.30	2.17	2.30	2.20	1.92	1.85
13. Milk (Cow's)	ltr.	2.36	2.36	2.37	2.37	2.37	2.37	2.37	2.37	2.36	2.38	2.38	2.36
14. Egg (Hen's)	doz.	4.81	4.63	4.37	4.16	4.62	5.45	5.38	5.07	4.69	4.93	5.41	5.23
15. Mutton	kg.	11.90	11.90	11.90	12.30	12.50	12.60	12.70	12.90	12.90	13.00	13.50	14.00
16. Potato	"	1.75	1.49	1.57	1.66	1.74	1.74	1.55	1.23	1.12	1.24	1.34	1.33
17. Coriander	"	7.40	6.42	6.08	6.11	5.85	5.44	4.92	4.64	4.30	4.15	4.00	3.73
18. Chillies	"	10.82	9.94	9.08	9.06	8.73	3.78	8.71	8.68	9.23	11.58	12.89	11.83
19. Onion	"	1.77	1.04	0.99	1.09	1.18	1.25	0.81	0.67	0.63	0.64	0.66	0.63
20. Tamarind	"	3.47	3.40	3.69	4.22	4.80	5.22	5.80	6.28	6.73	6.98	8.14	7.33
21. Tea (Brooke Bond Al Dust)	"	18.65	18.45	18.36	19.38	19.26	19.39	19.34	19.20	18.90	18.70	18.66	18.65
22. Coffee Powder (Brooke Bond Family Brand)	"	18.32	18.32	18.34	19.30	19.25	19.18	19.14	19.11	18.67	18.43	18.42	18.41
23. Sugar (O.M.)	"	3.67	3.28	3.89	3.53	3.51	3.64	3.45	2.89	2.59	2.47	2.39	2.33
24. Coconut (with- out husk)	100 nos.	106.30	107.00	107.50	110.00	110.00	110.50	109.00	112.25	119.80	119.30	118.80	117.33
25. Tobacco	kg.	13.05	12.78	12.55	12.33	12.13	12.23	12.23	12.10	12.20	12.00	12.00	11.83
26. Fire wood (Local, Split)	qtl.	19.55	19.55	20.15	20.40	20.53	21.85	22.25	22.85	23.60	23.45	23.85	24.33
27. Mundu—Mull	each	9.78	9.61	9.72	9.75	9.80	10.14	10.16	10.04	10.08	9.99	10.05	10.33
28. Mundu—Kora	"	7.44	7.45	7.64	7.49	7.54	7.72	7.80	7.80	7.95	7.95	7.85	7.33
29. Paper	24 nos.	1.31	1.38	1.36	1.39	1.44	1.52	1.53	1.58	1.60	1.59	1.57	1.53
30. Washing Soda	kg.	1.69	1.69	1.81	1.96	2.25	2.71	2.76	2.75	2.85	3.03	3.06	3.15
31. Washing Soap Sunlight Bar	each	1.51	1.55	1.57	1.59	1.59	1.60	1.60	1.60	1.60	1.59	1.59	1.53
32. Toilet Soap—Lux	"	1.30	1.35	1.35	1.38	1.40	1.42	1.42	1.41	1.41	1.41	1.41	1.41
33. Razor Blade— Prince, Ordinary	5 nos.	0.56	0.56	0.56	0.57	0.55	0.57	0.58	0.55	0.55	0.53	0.54	0.53

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
34. Tooth Paste-Colgate Large	each	2.62	2.63	2.63	2.64	2.65	2.65	2.66	2.66	2.66	2.66	2.66	2.66	3.02*
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	0.15
36. Electric Bulb (Osram 40W)	each	2.79	2.79	2.79	2.93	2.97	3.03	3.05	3.06	3.06	3.06	3.06	3.06	3.11
37. Aluminium Cooking Pot	kg.	25.12	25.52	27.18	27.90	28.35	28.35	28.55	28.55	28.52	28.51	28.52	28.52	28.32
38. Cement	bag	21.32	21.79	21.80	22.62	22.57	22.57	22.82	22.86	23.24	23.33	23.93	23.93	26.33
39. Babyfood (Amul)	kg.	20.67	20.69	20.69	22.04	23.20	23.29	23.29	23.29	23.33	23.32	23.32	23.32	23.32
40. Torch Battery (Eveready 950)	each	1.67	1.67	1.68	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75

*Variation in price due to difference in size.

APPENDIX 3.5

Wholesale Price Index of Agricultural Commodities—Kerala 1978

(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	319
2. Molasses	293.6	285.9	279.4	273.4	265.1	271.8	278.9	295.4	324.8	298.2	311.6	285.8	289
3. Condiments & Spices	294.4	287.3	309.9	354.9	400.2	368.5	316.5	309.0	319.9	318.1	303.3	302.1	324
4. Fruits & Vegetables	530.8	526.4	534.0	533.6	512.2	508.3	599.7	605.4	611.7	603.3	599.1	599.0	564
5. Food Crops	349.8	347.6	352.4	359.5	363.0	357.4	364.6	364.8	368.7	366.0	363.4	361.5	360
6. Oil Seeds	669.4	657.7	669.7	672.9	673.1	663.4	663.0	655.1	706.6	712.9	705.6	669.8	677
7. Plantation Crops	288.4	284.8	291.9	307.5	316.4	320.1	323.0	313.1	330.1	313.7	298.9	303.1	308
8. Non-food Crops	554.3	545.1	555.6	562.5	565.4	559.7	560.3	551.9	592.9	592.3	582.8	559.0	565
All Crops	424.4	419.7	426.6	433.6	436.9	431.2	436.0	433.1	450.5	448.6	443.5	433.6	435

APPENDIX 3.6

Wholesale Price Index of Agricultural Commodities—Kerala (1970-78)

(Base 1952-53=100)

Group	1970	1971	1972	1973	1974	1975	1976	1977	1978
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Foodgrains (Rice)	209	209	209	233	297	319	319	319	319
2. Molasses	172	239	272	280	282	416	423	368	289
3. Condiments & Spices	234	171	139	161	222	218	318	309	324
4. Fruits and Vegetables	217	208	234	306	402	385	380	497	564
5. Food Crops	213	203	204	235	302	317	332	349	360
6. Oil Seeds	369	303	287	466	617	479	525	606	677
7. Plantation Crops	141	138	139	154	215	247	236	310	308
8. Non-Food Crops	300	253	242	372	496	409	438	516	565
All Crops	245	222	218	285	373	350	371	410	435

APPENDIX 3.7
Availability of Food in the State (1971-78)

Particulars	Unit	1971	1972	1973	1974	1975	1976	1977 (Provisional)	1978 (Provisional)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Population of the State as on 1st April	Lakhs	214.7	219.7	224.7	229.8	234.8	239.5	241.5	246.1
2. Production of rice in the State	Lakh tonnes	12.98	13.52	13.76	12.57	13.34	13.29	12.54	12.95
2.(a)* Availability of rice for consumption from production within the State	„	11.68	12.16	12.05	11.31	12.00	11.96	11.29	11.66
3.† Import of rice on State account	„	7.47	7.74	7.20	7.44	5.12	9.02	15.03	16.20
4. Import of wheat on State account	„	0.55	0.83	1.98	2.42	5.18	3.89	2.07	1.20
5. Production of raw tapioca	„	46.17	54.29	56.29	56.60	56.25	53.90	51.26	51.14
6.** Availability of tapioca for consumption	„	34.63	40.72	42.22	42.45	42.19	40.43	38.45	38.36
7. Availability of tapioca for consumption in rice equivalent	„	15.60	18.34	19.23	19.12	19.00	18.21	17.32	17.28

* Ten per cent of production is set apart for seed, feed and wastage and the rest alone is accounted for as available for consumption.

† Firm data are not available on the import of rice into the State by private trade. Hence availability through this source is not included.

** Twenty-five per cent of the production is set apart for industrial uses such as sago and starch manufacturing and animal and poultry feed and rest alone is accounted for as available for consumption. 1 tonne of rice=2.22 tonnes of raw tapioca.

APPENDIX 4.1

Farm Commodity Prices—Kerala

Commodity	Paddy per quintal		Tapioca per quintal		Coconut per 1000 nos.		Pepper per quintal		Ginger per quintal	
	1977	1978	1977	1978	1977	1978	1977	1978	1977	1978
Months	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
January	136.14	131.18	35.26	30.05	1045.60	1071.60	1530.77	1584.19	1055.89	1030.23
February	130.21	126.35	34.22	29.41	1005.30	1046.50	1523.46	1534.90	1112.99	1044.07
March	138.75	130.62	35.35	28.99	914.60	1040.70	1618.97	1537.71	1479.41	1024.79
April	145.37	129.38	34.96	30.92	826.20	1057.70	1659.48	1639.36	1525.16	1240.74
May	145.51	129.11	35.63	31.80	901.10	1050.20	1665.28	1607.88	1537.66	1278.76
June	147.16	130.62	33.18	31.08	844.10	1057.20	1686.77	1655.74	1496.54	1242.49
July	147.02	132.14	32.28	31.12	859.00	1043.70	1695.47	1654.42	1502.69	1127.78
August	145.92	131.31	31.62	32.08	870.40	1046.00	1613.47	1617.86	1475.50	1009.06
September	136.41	127.18	30.88	32.52	938.00	1116.50	1630.36	1639.69	1477.86	937.10
October	129.52	127.04	29.37	32.47	974.40	1122.30	1563.64	1655.59	1395.67	924.42
November	133.38	128.56	28.23	33.98	1083.50	1222.60	1591.44	1630.11	1161.96	834.22
December	135.03	115.07	29.13	34.45	1114.20	1074.90	1585.83	1478.77	1027.14	648.11

APPENDIX 4.2

District-wise Average Monthly Rainfall

(In millimetres)

District	1976												1977											
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)						
Trivandrum	151.2	140.9	46.1	146.6	229.5	33.0	4.1	19.9	33.2	88.2	361.3	228.8	175.2	97.5	106.0	527.7	202.7	18.2						
Quilon	353.1	259.7	110.7	322.6	362.4	38.1	0.4	44.2	47.7	145.4	497.5	411.8	343.6	145.0	160.9	535.3	317.9	9.9						
Alleppey	454.6	298.9	99.8	275.9	426.5	33.3	..	13.6	74.8	139.8	599.1	698.1	517.4	223.9	199.1	500.4	337.4	14.7						
Kottayam	549.2	309.3	106.7	250.3	354.6	42.6	2.2	11.1	67.2	233.7	421.5	603.9	560.4	271.4	238.3	512.5	282.8	19.4						
Idukki	676.6	424.4	164.2	250.6	253.9	28.0	..	13.0	19.5	145.5	254.6	485.2	628.9	294.6	239.3	406.3	215.7	9.7						
Ernakulam	680.5	391.5	94.1	327.1	363.1	44.8	..	18.4	44.3	206.0	369.3	593.8	643.7	233.9	176.0	420.3	498.5	..						
Trichur	732.1	440.6	130.2	200.0	217.3	20.6	..	6.7	21.1	47.3	317.1	678.8	892.6	238.1	211.6	476.9	513.7	..						
Palghat	394.8	204.5	74.3	197.5	337.2	10.5	..	6.0	30.2	94.1	143.7	472.0	493.2	185.8	183.7	988.0	361.7	..						
Malappuram	658.8	372.0	75.6	237.5	296.8	37.2	..	..	28.1	88.3	278.3	640.5	697.4	205.3	172.0	489.2	422.3	..				
Kozhikode	974.7	445.8	135.0	212.5	350.2	39.7	..	3.4	10.8	60.1	305.6	1005.4	1592.1	969.4	288.8	516.3	498.3	..						
Cannanore	1054.9	429.4	185.2	90.2	209.4	13.5	..	12.4	7.6	30.8	208.0	812.4	1374.5	307.8	206.1	320.4	297.0	1.2						
State	607.3	337.9	111.1	228.3	309.2	31.0	0.6	13.5	35.0	116.3	341.5	602.8	719.9	230.2	198.3	463.0	358.9	6.6						
Normal	686.4	422.6	242.0	306.9	190.9	51.2	18.5	19.3	46.4	115.6	245.0	672.8	686.4	422.6	242.0	306.9	190.9	15.2						

Appendix 4.5
Land Use Pattern in Kerala during 1977-78*

(Area in hectares)

District	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total Geo- graphical area accord- ing to village papers	Forest	Land put to non- agricultural uses	Barren and uncultivable land	Peasures and grazing land	Land under miscellaneous tree crops not included in net area sown	Cultivable waste	Follow land other than current fallows	Current fallows	Net Area sown	Area sown more than once	Total crop- ped area	
Trivandrum	218600	49861	16640	1660	50	274	2137	1557	1385	145086	98169	298205	
Quilon	474290	296048	24372	2702	50	401	1217	1429	1834	206237	132893	339130	
Alleppey	182270	518	30230	650	21	231	2792	863	1932	145033	85371	230404	
Kottayam	219550	8141	16416	1788	152	459	1407	1295	1783	188109	63801	251910	
Idukki	515048	260993	13570	20244	4380	14638	92969	1120	1149	165985	1064	167049	
Ernakulam	235319	8123	27610	2628	284	1586	6172	2123	4171	182622	54892	236411	
Trichur	299390	103619	20310	3055	267	1542	5295	2345	4501	158456	77955	236411	
Palghat	438980	136257	29685	17478	930	7503	20080	4279	6508	216260	88538	304818	
Malappuram	363230	103417	16667	9311	690	2970	13172	3587	6306	207110	75538	282648	
Kozhikode	371150	90876	21688	4073	409	11409	5852	1437	2495	232911	45561	278472	
Cannanore	567670	83656	37088	26438	2221	20887	32878	4478	5999	354025	26027	380052	
State	3885497	1081509	254276	90027	9454	61900	123971	24513	38063	2201784	744829	2946613	

*Provisional-

APPENDIX 4.4

Consumption of Fertilisers in Kerala

Year	(In tonnes)			Total
	Nutrients			
	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	31237	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

Source: Department of Agriculture.

APPENDIX 4.5

Area, Production and Productivity of Principal Crops in Kerala in 1977-78 *

Crop	Area (in hectares)	Production (in tonnes)	Productivity (Kg./hect.)
(1)	(2)	(3)	(4)
I. Food Crops			
Rice:			(Paddy)
Virippu	365111	551792	2300
Mundakan	370859	559190	2295

(1)	(2)	(3)	(4)
Punja	104404	183653	2677
Pulses	37410	16882	451
Sugarcane (gur)	7172	40987	5715
Pepper (black)	110156	30776	279
Ginger (dry)	11447	29033	2536
Turmeric (cured)	2347	2247	957
Cardamom (processed)	51681	1420	27
Betelnuts	68616	11345**	165340@
Banana and Plantains	51652	394069	7629
Cashewnut	119305	91926	771
Tapioca (raw)	322682	5114042	15842
Other food crops	241110		
Total food crops	1863952		
II. Non-Food Crops:			
Ground nut	16622	17453	1050
Sesamum	16078	4468	278
Coconut	699119	3367**	4816@
Cotton	7260	1721	237
Tobacco	582	1106	1900
Tea	36161	41644	1152
Coffee	52644	27645	525
Rubber	209723	139349	664
Other Non-food Crops	44472		
Total Non-food Crops	1082661		
Total Cropped Area	2946613		

*Provisional

**Million nuts

@Nuts/hectares)

APPENDIX 4.6

Distribution of Surplus land

Item	As on 31-12-1977	As on 31-12-1978	Changes over the year
(1)	(2)	(3)	(4)
1. Total Ceiling Returns Filed (No.)	58842	61851	6009
2. Total Ceiling Returns Decided (No.)	50426	56592	6166
3. Balance to be Decided (No.)	8416	5259	..
4. Area Ordered to be Surrendered (Acres)	121534	140354	18,820
5. Area reduced on Orders of High Court (Acres)	..	25883	..
6. Net Extent of land Ordered for Surrender (Acres)	..	114471	..
7. Extent of Land taken over (Acres)	64784	71188	6404
8. Area Reconveyed on Orders of High Court (Acres)	..	2204	..
9. Net Extent Taken Over	64784	68,984	4200
10. Balance Extent to be Taken Over (Acres)	..	45487	..
(i) Covered by Stay Against Taking Possession (Acres)	..	28,581	..
(ii) Not to be Taken Over due to gift, Dispute, etc. (Acres)	..	14305	..
(iii) Extent Available for Taking Over (Acres)	..	2601	..
11. Surplus Land Distributed (Acres)	41063	44998	3935
12. Balance Extent Taken Over Pending Distribution (Acres)	23721	23986	..
(i) Covered by Stay Against Assignment	..	3053	..
(ii) Not Distributed due to gift, Vested Forest etc. (Acres)	10273	3301	..
(iii) Reserved for Public Purposes (Acres)	11955	13753	..
(iv) Available for Distribution (Acres)	1493	1879	..

APPENDIX 4.7

Disposal of Cases Relating to Tenancy and Kudikidappu

Item	Tenancy		Kudikidappu	
	As on 31-12-1977	As on 30-11-1978	As on 31-12-1977	As on 30-11-1978
(1)	(2)	(3)	(4)	(5)
I. Total Number of Applications Received	3436682	3549691	4,13,214	421460
II. Disposal of Cases				
1. Allowed (No.)	2263821	2388299	254868	259571
2. Rejected (No.)	639788	717716	137877	141210
3. Other Disposals (No.)	397914	417197	18408	18780
4. Total (No.)	3301523	3523212	411153	419561
III. Balance to be Disposed of (No.)	135159	26479	2061	1899
IV. No. of Certificate of Purchase Issued (No.)	2075405	2318236	234193	245076

APPENDIX 4.8

State-wise Area, Production and Yield of Tea from 1975 to 1977

State	Area in (Ha.)			Production (in tonnes)			Average Yield/Ha. (in Kg.)		
	1975	1976	1977	1975	1976	1977	1975	1976	1977
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Assam	188792	189338	190621	263055	276308	291411	1393	1459	1529
West Bengal	88785	88799	89253	111860	117723	131306	1260	1326	1529
Tripura	5467	5527	5600	3674	4292	4457	672	777	796
Bihar	459	459	459	18	29	31	39	63	68
Uttar Pradesh	1817	1799	1799	580	854	860	319	475	748
Himachal Pradesh	4183	4183	4183	1391	1433	1547	333	343	370
Tamil Nadu	35481	36079	36333	60452	59825	83383	1704	1658	2020
Karnataka	1774	1764	1834	2892	3440	3559	1630	1950	1941
Kerala	36347	36327	36194	43215	47913	51983	1189	1319	1436
Total	363105	364275	366276	487137	511817	558537	1342	1405	1525

Source:—Tea Board.

APPENDIX 4.9

State-wise Area, Production and Yield of Coffee

State	Area (in Ha.)		Production (in Tonnes)		Yield/Ha. (in Kg.)	
	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Karnataka	101676	100926	61008	78255	600	773
2. Tamil Nadu	28068	32225	8869	8825	315	273
3. Andhra Pradesh	1023	1539	208	265	203	170
4. Kerala	40502	52644	13717	14955	338	284
5. Other States	266	1094	180	N.A.	676	N.A.
Total	171535	188447	83982	102300	489	542

Source:—Coffee Board

APPENDIX 4.10

Species-wise Area, Production and Yield of Coffee in Kerala

Species	Area (in Ha.)		Production (in tonnes)		Yield/Ha. (in Kg.)	
	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Arabica	4177	2926	1034	1415	247	483
2. Robusta	36305	49718	12683	13540	349	272
Total	40502	52644	13717	14955	938	284

Source: Coffee Board.

APPENDIX 4.11

Production, Import, Export and Consumption of Rubber, India (in '000 tonnes)

Item	1970-71	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)
Production:				
Natural rubber	92.17	137.8	149.6	146.9
Synthetic rubber	29.79	25.1	23.2	27.2
Import:				
Natural rubber	2.5	..	..	..
Synthetic rubber	5.0	5.9	7.7	8.8
Export:				
Natural rubber	..	..	12.3	11.1
Consumption:				
Natural rubber	87.2	125.7	137.6	145.0
Synthetic rubber	33.2	32.5	33.7	34.8
Reclaimed rubber	14.3	19.3	20.9	21.7
Total consumption	134.7	177.5	192.2	201.5

Source: Rubber Board

APPENDIX 4.12

Livestock Population in Kerala

Item	Number in Thousands as per			
	1972	1977 Census*		
		Census	Desi	Improved	Total
(1)	(2)	(3)	(4)	(5)

Cattle:

(a) Males over 3 years:				
(1) Breeding bulls	4.8	2.3	1.2	3.5
(2) Working bullocks	382.5	344.0	19.5	363.5

	(1)	(2)	(3)	(4)	(5)
(3) Not used for breeding or work		4.3	3.7	0.4	4.1
Total		991.6	350.0	21.1	371.1
(b) Females over 3 years:					
(1) Breeding cows					
(a) in Milk	606.2	384.2	370.8	705.0	
(b) Dry and not calved	680.7	345.9	314.3	660.2	
(2) Working cows	7.6	2.3	0.2	2.5	
(3) Not used for breeding or work	5.7	2.4	0.7	3.1	
Total	1300.2	684.8	686.0	1370.8	
(c) Young stock	1164.6	616.3	647.7	1264.0	
Total Cattle	2856.3	1651.1	1354.8	3005.9	

Buffaloes:

(a) Males over 3 years					
(1) Breeding	2.2	..	..	1.8	
(2) Working	220.1	..	..	214.5	
(3) Not used for breeding or work	3.4	..	..	2.5	
Total	225.7	..	..	218.8	
(b) Females over 3 years:					
(1) Breeding					
(a) In Milk	83.2	..	..	86.7	
(b) Dry & not calved	64.2	..	..	64.6	
(2) Used for work	6.0	..	..	5.0	
(3) Not used for breeding or work	2.4	..	..	1.2	
Total	155.8	..	..	157.5	
(c) Young stock	90.2	..	..	78.0	
Total buffaloes	471.7	..	..	454.4	
Sheeps	10.3	..	..	2.5	
Goats	1467.7	..	..	1683.3	
Pigs	129.1	..	..	172.4	
Others	1.3	..	..	0.4	
Total Livestock	4936.4	..	..	5318.9	

*Provisional.

Source: Livestock census of Kerala 1972 and 1977 (Department of Animal Husbandry.)

APPENDIX 4.13

Principal Species of Marine Fish catches (Kerala)

Species	(Quantity in tonnes)									
	Average for 1969-78		1974		1975		1976		1977	
	Actual	%	Actual	%	Actual	%	Actual	%	Actual	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Elasmobranchs	6779	1.9	10398	2.5	10292	2.4	7308	2.2	5796	1.67
2. Oat fishes	13578	3.7	33526	8.0	32603	7.8	12743	4.0	7947	2.30
3. Chirocentrus	589	0.2	..	..	..	..	807	0.2	547	0.16
4. (a) Oil sardine	150770	40.2	102195	24.3	97183	23.1	123937	37.4	117356	34.01
(b) Other sardine	21240	5.6	31335	7.2	33652	8.0	34305	10.4	20804	6.03
5. Anchoviella	9778	2.6	19463	4.6	11432	2.7	9987	3.0	10105	2.93
6. Thrisocles and other clupeoids	5289	1.4	2644	0.6	2636	0.6	3906	1.2	2160	0.63
7. Perches	4588	1.2	20970	5.0	14741	3.4	3069	1.0	14121	4.09
8. Red Mullets	1579	0.4	3881	1.0	..	..	2577	0.8	240	0.07
9. Sciaenids	6198	1.6	9220	2.2	16811	4.0	6955	2.1	11965	3.47
10. Ribbon fish	12821	3.4	30192	7.2	15175	3.6	7687	2.3	7440	2.16
11. Caranx	8038	2.1	5256	1.3	7190	1.8	10478	3.2	16484	4.78
12. Leiognathus	12445	3.3	17518	4.2	5211	1.2	2727	0.8	7708	2.23
13. Lactarius	3086	0.8	2904	0.7	983	0.2	468	0.1	823	0.24
14. Pomfrets	1617	0.4	1500	0.4	1181	0.5	799	0.2	3712	1.08
15. Mackerel	46820	12.4	10335	2.5	14930	3.6	19978	6.0	19968	5.79
16. Seer fish	1723	0.5	4909	1.2	4065	1.0	5936	1.8	3250	0.94
17. Tunnies	2314	0.6	5927	1.4	5845	1.3	12880	3.9	6705	1.94
18. Soles	9546	2.5	12771	3.0	6932	1.7	3567	1.0	5778	1.67
19. (a) Penaeid prawns	44641	11.9	59815	14.2	77207	18.3	34478	10.4	40150	11.64
(b) Non-Penaeid prawns	652	0.2	1014	0.2	755	0.1	55	..	174	0.05
(c) Lobster	..	..	..	..	..	..	50	..	40	0.01
(d) Other crustaceans	..	..	..	..	..	..	1316	0.4	4621	1.34
20. Cephalopods	282	0.1	..	..	..	..	872	0.3	4973	1.44
21. Miscellaneous	11007	3.0	34604	8.3	62012	14.7	24162	7.3	32170	9.33
Total	375380	100.0	420257	100.0	420836	100.00	331047	100.00	345037	100.00

APPENDIX 4.14

Fishermen Co-operatives in Kerala

Category	1975-76			1976-77			1977-78		
	No. of Societies	Member-ship	Paid up capital (Rs. lakhs)	No. of Societies	Member-ship	Paid up capital (Rs. lakhs)	No. of Societies	Member-ship	Paid up capital (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Credit Societies	153	29837	6.12	132	25140	6.08	127	24245	9.50
M.U.C.S.	728	64562	20.19	618	54713	19.36	575	48937	8.70
Regional Marketing Societies (including Federation)	18	1537	48.87	18	1640	52.15	18	1682	36.50
Total	899	95936	75.18	768	81493	77.59	720	74864	54.70

APPENDIX 4.15

Beach Prices of Marine Fish (1977-78)

Sl. No.	Name of Species	Price in the Beach (Rs./Kg.)
(1)	(2)	(3)
1.	Elasmobranchs	2.34
2.	Cat fish	1.33
3.	Chirocentrus	4.75
4.	(a) Oil Sardine	1.79
	(b) Other Sardine	1.00
5.	Sciaenide	1.25
6.	Other carangids	0.65
7.	Leiognathus	2.16
8.	Lactarius	3.49
9.	Pomfrets	4.90
10.	Mackerel	2.94
11.	Seer Fish	4.42
12.	Tunnies	5.50
13.	Soles	0.82
14.	Cephalopods	2.00
15.	Miscellaneous	1.84
16.	(a) Prawn (Naran)	33.59
	(b) Prawn (Poovalan)	7.33
	(c) Prawn (Karikkadi)	5.42
	(d) Prawn (Kazhanthan)	19.25

APPENDIX 4.16

Division-wise Area of Forests

Division	Forest area (In hectares)		
	As on 31-3-1977	As on 31-3-1978	
(1)	(2)	(3)	
1.	Trivandrum	57,076	57,076
2.	Thenmala	56,762	56,762
3.	Punalur	28,005	28,005
4.	Konni	34,380	34,040
5.	Ranni	1,05,746	1,05,746
6.	Kottayam	73,082	73,082
7.	Malayattur	67,950	68,049
8.	Munnar	89,660	89,737
9.	Chalakyudy	86,091	85,590
10.	Trichur	52,388	52,342
11.	Wild Life Division, Thekkady	77,700	77,700
12.	Nemmara	48,410	48,407
13.	Nilambur	32,469	32,469
14.	Palghat	37,317	37,317
15.	Kozhikode	42,067	42,062
16.	Wynad	45,782	45,782
17.	Special Division, Kozhikode	370	370
Total		9,35,255	9,34,536

APPENDIX 4.17

Species-wise Area under Forest Plantation

Name of Species	Area in Hectares		
	As on 31-3-1977	As on 31-3-1978	
(1)	(2)	(3)	
1.	Teak	65,470	68,511
2.	Soft wood	20,414	21,694
3.	Junglewood (Hard wood)	1,571	1,592
4.	Cashew	3,482	3,796
5.	Rosewood	59	79
6.	Eucalyputs	31,525	30,598
7.	Mahogany	141	202
8.	Bamboo	985	965
9.	Wattle	571	652
10.	Sandalwood	3	3
11.	Fuelwood	715	453
12.	Kongu	19	20
13.	Balsa	62	93
14.	Cardamom	40	41
15.	Pine	429	429
16.	Pepper	94	98
17.	Mixed Plantations	1,149	1,290
18.	Zyloicum	4	4
19.	Others	1,063	1,327
Total		1,27,796	1,31,787

APPENDIX 4.18

Out-turn of Forest Products

Item	Unit	1976-77	1977-78*	
(1)	(2)	(3)	(4)	
1.	Timber			
	Round Logs	'000 Cu.m.	541	504
2.	Timber			
	Round Poles	'000 Nos.	1,416	1,123
3.	Sawn and Squared Timber	Cu.m.	485	16
4.	Firewood	'000 Tonnes	265	246
5.	Charcoal	Tonnes	3,712	275
6.	Cardamom	Kg.	8,290	12,904
7.	Honey	"	36,804	27,241
8.	Wax	"	1,685	5,735
9.	Scrivelloes	"	2,750	3
10.	Reeds	Tonnes	59,820	11,164
11.	Rattans	Nos.	1,65,300	2,04,600
12.	Bamboos	'000 Nos.	1,347	1,793
13.	Jungle Wood Posts	Nos.	9,145	8,312
14.	Sleepers B.G.	"	42,163	42
	M.G.	"	13,666	116
	Special	"	2,464	..
15.	Sandal Wood	Kg.	4,781	3,589

(*) Provisional

APPENDIX 4.19

Sale Proceeds of Timber and other Produce

(Rs. in '000)

Item	1976-77	1977-78
(1)	(2)	(3)
A. Forests		
1. Timber	2,19,581	2,58,344
2. Fire wood and Charcoal	10,264	15,764
3. Live Stock	417	333
4. Other Items	20,624	21,112
Total (A)	2,50,886	2,95,553
B. Other receipts including interest on arrears on forest revenue, etc.		
	12,643	23,047
Grand Total (A+B)	2,63,529	3,18,600
Deduct Refunds	1,754	764
Net Total	2,61,775	3,17,836

ANNEXURE 3.1

Pipalad Achievements to Minor Irrigation—District-wise Details*

District	M. I. class-I Achievements in ha. during 1977-78		Total at the end of 1977-78		M. I. Class-II Achievements in ha. during 1977-78		Total at the end of 1977-78		Irrigation achievements in ha. during 1977-78		Total at the end of 1977-78	
	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	..	..	866.39	1299.58	105.50	105.50	5424.10	5424.10	..	..	..	..
Quilon	51.40	77.10	394.71	591.25	323.98	323.98	5027.794	5027.794	..	..	564.37	846.55
Alleppey	..	..	3415.00	5122.50	270.00	270.00	15049.00	15049.00	..	..	3070.00	4605.00
Kottayam, Idukki	41.34	62.01	705.58	1058.37	59.45	59.45	6728.15	6728.15	..	..	224.17	386.25
Ernakulam	..	..	1618.27	2427.40	40.88	40.88	2744.19	2744.19	194.40	291.60	9894.39	14751.45
Tyichur	230.00	304.50	1549.06	2323.59	125.15	125.15	1738.17	1738.17	103.47	155.20	4037.70	6056.55
Malappuram	..	..	754.00	1131.00	49.00	49.00	2022.00	2022.00	284.00	426.00	3578.00	5367.00
Palghat	..	..	1545.00	3090.00	96.00	96.00	560.59	560.59	255.00	510.00	1480.00	3660.00
Kozhikode	175.30	262.95	1194.601	1701.90	24.20	24.20	2051.431	2051.431	..	..	110.537	166.303
Canenore	145.00	145.00	949.96	1424.94	132.01	132.01	2765.87	2765.87	49.04	49.04	193.48	290.32
Total	649.04	851.56	12982.571	20170.58	1225.17	1225.17	44111.295	44111.295	885.91	1451.84	23042.557	35276.825

*Provisional

Continued.

Appendix 5.1

District	I. P. D. (Yelab) during 1977-78		Total at the end of 1977-78		Grand Total during 1977-78		Grand Total at the end of 1977-78	
	Net (14)	Gross (15)	Net (16)	Gross (17)	Net (18)	Gross (19)	Net (20)	Gross (21)
Trivandrum	495.00	495.00	2414.52	2414.52	600.50	600.50	8705.01	9138.20
Quilon	344.27	344.27	657.43	657.43	719.65	745.35	6643.764	7123.024
Alleppey	300.00	300.00	1958.00	1958.00	570.00	570.00	23492.00	26734.50
Kottayam, Idukki	170.74	170.74	704.76	704.76	271.53	292.20	8362.66	8827.53
Ernakulam	129.76	129.76	248.55	248.55	365.04	462.24	14445.310	20171.59
Trichur	340.30	340.30	1205.244	1205.244	771.92	925.15	8530.174	11823.554
Malappuram	126.00	126.00	276.00	276.00	458.00	600.00	6630.00	8796.00
Palghat	27.00	27.00	79.00	79.00	378.00	633.00	3614.59	6589.59
Kozhikode	147.387	147.387	574.785	574.785	346.887	434.537	3871.354	4493.921
Cannanore	64.19	64.19	73.05	73.05	331.57	331.57	3982.36	4554.08
Total	2144.647	2144.647	8191.339	8191.339	4813.097	5594.547	88277.222	107751.989

APPENDIX 5.2

Growth of Kerala Power System at a Glance

Particulars	Beginning of 1st Plan as on 1-4-1951	End of First Plan as on 31-3-1956	End of 2nd Plan as on 31-3-1961	End of 3rd plan 31-3-1966	End of the annual plans as on 1-4-1969	End of 4th plan as on 31-3-1974	Fifth Plan as on 31-3-1978.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Installed Capacity—MW.	36.0	85.5	132.5	192.5	346.5	621.5	1011.5
2. Maximum Demand—MW							
(a) System	24.4	62.9	116.3	173.7	352.7	500.2	802.2
(b) Internal	24.4	62.9	116.3	173.7	277.7	434.4	551.8
3. Generation Per Annum—MU.	151.0	350.0	591.0	841.9	1623.0	2510.0	4470.6
4. Import Per Annum—M.U.	16.9	1.5	56.8	116.0	19.0	1.2	2.53
5. Export Per Annum—M.U.	..	..	11.6	..	28.2	317.8	1625.0
6. Energy Sales Per Annum—M.U.	140.0	274.0	517.2	749.7	1366.2	2105.1	3906.56
7. Energy Losses as a % of Energy Available for Sale	14.3	19.7	17.9	20.2	15.9	15.4	10.41
8. Per Capita Consumption	13.0	18.5	30.0	40.0	66.0	79.0	88.4
9. 220 K.V. Lines—Gt. KM.	..	..	..	..	316.4	316.4	853.77
10. 110 K. V. Lines—Gt. KM.	..	..	527.0	617.0	1068.0	1350.0	1403.45
11. 66 K. V. Lines—Gt. KM.	910.7	1070.00	1373.0	1717.5	1601.0	1711.0	1840.89
12. 11 K. V. Lines—Gt. KM.	1067.0	2802.0	5209.0	6327.0	7046.0	9447.0	12176.0
13. L. T. Lines—Gt. KM.	992.0	2783.0	8899.0	14189.0	16952.0	20968.0	37190.6
14. Step up Transformer Capacity—MVA.	40.0	103.0	161.0	233.0	632.0	717.5	1149.6
15. No. of EHT Sub-Stations	12.0	15	22	38	41	59	75
16. Step Down Transformer Capacity—MVA.	57.5	85.0	251.0	425.0	834.0	1269.0	1753.5
17. Distribution Transformers							
(a) Nos.	324	845	2893	3980	4907	8285	9877
(b) Capacity—K.V.A.	9950	50700	173906	261826	355972	566260	890.959
18. No. of Villages Electrified/No. of Villages	159/ 4545	381/ 4545	872/ 4545	1083/ 1573	1138/ 1573	1173/ 1268	1241/ 1268
19. No. of Consumers	28119	78775	174994	325063	439681	777030	1072123
20. Connected Load—MW.	68.4	142.3	331.3	509.9	805.4	1231.5	1530.5
21. No. of Street Lights	7905	25489	82645	106996	144902	173587	284483
22. No. of Irrigation Pumpsets	191	893	4615	7007	13909	37611	58922
23. Total Revenue Per Annum (Rs. lakhs)	58.4	140.7	311.6	706.8	1165.0	2379.0	3710.0*

* Figure Relates to the year 1976-77.

APPENDIX 5.3

Financial Position of the Kerala State Electricity Board

Item	(Rs. in lakhs)		
	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)
1. Gross Revenue	2981.48	4016.66	5708.93
2. Expenditure	2793.32	2852.74	4169.33
3. Net Operating Surplus	188.16	1163.92	1539.60
4. Capital Investment of the Board	31683.21	35045.56	38626.03
5. Total Loans Outstanding	23372.65	27277.14	29125.31

	(1)	(2)	(3)	(4)
6. Loans Raised				
During the Year		2642.04	2289.41	2067.37
7. Loans Repaid				
During the Year		467.08	384.93	219.21
8. Total Interest Payable		1492.20	1672.18	1800.30
9. Interest Available for Repayment				
During the Year		568.16	1347.95	1800.30

Note:- During the years 1975-76, 76-77 & 77-78, a sum of Rs. 440 lakhs, Rs. 326 lakhs and Rs. 500 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.

APPENDIX 5.4

Consumption of Power and Revenue Collected (1977-78)

Category	No. of Consumers as on 31-3-1978	Connected load as on 31-3-1978 KW	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	7,55,591	4,84,284	249.95	10.72	605.27	24.22
2. Domestic Heat & Small Power						
3. Commercial Lights and Fans	2,26,603	1,48,075	130.49	5.60	524.43	40.18
4. Commercial Heat & Small Power						
5. Industrial (Low & Medium Voltage)	28,614	3,14,219	183.92	7.90	355.66	19.94
6. Industrial High Voltage† Extra High Voltage	433	4,75,611	1,537.02	65.93	1,262.27	8.21
7. Irrigation	58,922	2,01,120	78.48	3.36	114.36	14.57
8. Public Lighting	1,398	13,588	36.31	1.56	145.52	40.08
9. Water Works and Sewage Pumping	449	11,653	25.78	1.10	43.24	16.78
10. Bulk Supply to Licences	5	64,965	89.39	3.83	112.96	12.64
Total	10,72,015	17,13,515	2331.34	..	3163.71	..

APPENDIX 5.5

Total Quantity of Power Sold and Receipts by the Sale of Electricity

Particulars of Receipt	During 1975-76			During 1976-77			During 1977-78		
	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	200.85	468.64	23.33	222.89	537.34	24.1	249.95	605.27	24.22
(b) Small Power									
II Commercial									
(a) Lights & Fans	104.48	412.84	39.51	120.47	474.06	39.35	130.49	524.43	40.18
(b) Small Power									
III Industrial									
(a) Low & Medium Voltage	178.29	329.90	18.50	183.55	343.61	18.72	183.92	355.66	19.96
(b) High Voltage	1282.76	692.33	5.40	1365.85	1014.30	7.43	1537.02	1262.27	8.21
IV Public Lighting	34.25	137.45	40.13	34.15	231.84	67.89	36.31	145.52	40.08
V Irrigation—Agricultural Watering	120.32	121.52	10.1	102.63	122.03	11.89	78.48	114.36	14.57
VI Public Water Works & Sewage Pumping	17.58	20.36	11.6	23.40	37.67	16.10	25.78	43.24	16.78
VII Bulk Supply	302.52	555.25	18.35	84.31	92.56	10.97	89.39	112.96	12.64
VIII Total Sale to Neighbouring States	2317.80	2692.50	11.61	555.25	679.05	10.43	1605.38	2012.18	12.94
TOTAL	4558.85	5430.79		2692.50	3532.46		3936.72	5175.89	19.15

APPENDIX 6.1

District-wise and Industry-wise Distribution of Working Factories and Workers in Kerala for the Year Ending 31-12-1977*

Name of Industry	Trivandrum		Quilon		Alleppey		Kottayam		Idukki		Ernakulam	
	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)
1 Oil	19	78	30	163	58	481	17	66	8	43	42	219
2 Tea	5	164	6	143	..	..	6	95	72	3458	..	..
3 Cashew	19	9548	234	113544	5	5468	..	..	..	..	2	421
4 Beedi **												
5 Cotton Textiles	13	1506	3	1091	2	475	4	333	..	..	8	1727
6 Coir	3	57	10	169	206	3128	3	52	..	..	18	322
7 Saw Mills	14	96	72	416	34	199	54	317	3	20	143	1039
8 Plywood Splints & Veneers	9	155	35	992	15	521	23	994	2	34	28	637
9 Printing and Publishing	47	1534	36	344	30	226	77	851	4	33	97	1346
10 Rubber & Rubber Products	32	343	47	682	23	369	193	2634	17	219	79	2202
11 Chemical & Chemical Products (except Matches and Soap)	8	973	11	225	11	440	13	402	2	37	34	6077
12 Matches	10	118	25	349	11	123	3	38	..	..	3	78
13 Soaps	1	5	9	30	1	5	2	5	..	..	14	1130
14 General Engineering	10	461	14	220	14	105	20	123	2	22	60	478
15 Tiles	1	32	44	1692	4	109	16	151	..	..	30	582
16 Automobile Repairing	31	2338	18	307	18	429	46	541	4	51	59	1016
17 Other Industries	73	1988	212	5705	129	4022	139	1505	9	348	442	17648
STATE	295	19896	800	126072	561	16100	616	8107	123	4265	1059	35122

Name of Industry	Trichur		Palghat		Malappuram		Kozhikode		Cannanore		State	
	A	B	A	B	A	B	A	B	A	B	A	B
(1)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
1 Oil	81	508	10	65	8	54	44	251	19	151	336	2079
2 Tea	1	76	3	117	1	21	11	668	4	143	109	4885
3 Cashew	5	2991	..	..	..	..	2	978	3	1400	270	134350
4 Beedi **												
5 Cotton Textiles	9	2516	15	1251	1	203	67	2085	630	10787	752	21974
6 Coir	8	59	..	..	4	48	43	744	11	119	306	4698
7 Saw Mills	119	669	100	476	32	231	118	1330	88	962	777	5755
8 Plywood Splints & Veneers	30	761	49	1143	14	223	91	1828	51	2462	347	9950
9 Printing and Publishing	57	700	36	535	7	40	78	1161	47	342	516	7112
10 Rubber & Rubber Products	56	494	34	311	21	212	86	611	41	252	629	8829
11 Chemical & Chemical Products (except Matches and Soap)	17	356	10	264	3	400	19	384	6	65	134	9623
12 Matches	21	233	10	202	3	58	25	313	3	35	114	1547
13 Soaps	4	87	..	..	..	..	17	455	3	25	45	1742
14 General Engineering	44	621	21	250	3	20	38	396	28	177	254	2873
15 Tiles	134	4073	11	558	4	328	35	9091	9	671	288	11287
16 Automobile Repairing	34	402	39	302	12	72	104	1109	73	363	438	7130
17 Other Industries	264	5261	408	5165	36	351	406	7745	192	2014	2310	51732
STATE	884	19807	746	10639	149	2261	1184	23149	1208	20168	7625	283586

A. Working Factories

B. Workers

* Provisional Figures

** Deleted from the Register of Factories

Appendix 6.2
Government Owned Companies—Main Features

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Name of Company	(Rs. in lakhs)													
	Paid-up Capital		Persons (Nos.) employed		Net Profit/Loss		Value of Production		Sales during		Sales in 1977-78			
	1976-77	1977-78	1976-77	1977-78	1976-77	1977-78	1976-77	1977-78	1976-77	1977-78	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	627	639	(-)/41.55	(-)/53.51	76.18	81.35	83.62	86.93	57.48*	..	29.45	86.99
2. Kerala Electrical and Allied Engineering Company Ltd.	95.82	105.82	486	554	(-)/23.38	(-)/44.11	146.35	178.30	126.40	215.63	185.27	80.36	Nil	215.63
3. Kerala Minerals and Metals Ltd.	165.05	204.00	430	431	(+)/30.77	(+)/19.16	28.92	63.61	70.96	62.20	22.00	35.32	4.88	62.20
4. Kerala Preno Pipe Factory Ltd.	19.50	19.50	326	311	(+)/5.83	(+)/19.36	66.48	51.88	60.90	52.55	21.91	30.64	Nil	52.55
5. Kerala Soaps & Oils Ltd.	149.97	149.97	307	420	(-)/6.01	(-)/16.26	143.65	197.34	138.45	165.56	129.77	35.79	Nil	165.56
6. Kerala State Drugs and Pharmaceuticals Ltd.	30.00	45.00	278	280	(+)/4.47	(+)/4.45	190.50	135.26	179.22	170.01	158.13	10.00	1.88	170.01
7. Sitaram Textiles Ltd.	94.00	188.00	35	63	(-)/0.09	(+)/10.66	5.65	34.73	5.65	43.09	N.A.	N.A.	N.A.	43.09
8. Travancore Plywood Industries Ltd.	48.58	48.58	466	506	(-)/10.94	(-)/10.69	130.55	154.34	164.71	162.98	78.53	48.51	35.94	162.98
9. Trivandrum Rubber Works Ltd.	57.70	57.70	374	416	(-)/18.40	(-)/59.19	128.17	109.09	156.69	107.00	45.00	62.00	Nil	107.00
10. Trivandrum Spinning Mills Ltd.	51.45	65.45	558	539	(-)/16.18	(-)/14.24	..	112.84	0.80	99.91	10.38	89.53	Nil	99.91
Total	820.02	991.97	3837	4159	(-)/75.48	174.37	916.45	1118.74	987.40	1165.86	658.47	392.15	72.15	1165.86

* Inclusive of sales outside Kerala
(+) Profit
(-) Loss

APPENDIX 6.3

Government owned Companies—Production and Capacity Utilisation

Name of Company	Name of Product	Unit	Installed Capacity in		Production during		Capacity Utilisation in Percentage	
			1976-77	1977-78	1976-77	1977-78	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Kerala Ceramics Ltd.	Porcelain	Tonnes	595	595	591	594	89.2	94.8
	China Clay	"	5000	5000	4962	4859	99.2	97.2
	Spray dried Kaolin	"	18000	18000	3820	4260	21.2	23.7
2. Kerala Electrical and Allied Engineering Co. Ltd.	Distribution Transformers	KVA	120000	120000	56685	76837	47.2	64.0
	Electric Motors	Nos.	500	500	103	6	20.6	1.2
	Meter Components	"	252000	252000	79271	46266	31.5	18.4
	Electric Wiring Accessories	"	133000	133000	14994	21988	11.3	16.5
	C.I. Special	MT	240	240	127	129	52.9	53.8
	Steel structures	"	1200	1200	746	546	42.5	45.5
	Alternators	Nos.	600	600	63	299	10.5	49.8
3. Kerala Minerals & Metals Ltd.	Ilmenite	Tonnes	16000	25000	22608	22155	141.3	88.6
	Rutile	"	2200	2400	1954	2023	88.8	84.3
	Sillimanite	"	1200	1200	126	124	10.5	10.3
	Zircon	"	300	300	155	521	51.7	178.7
	Brown Ilmenite	"	144	300	265	114	184.0	38.0
	Monazite	"	240	240	43	87	17.9	36.3
4. Kerala Premo Pipe Factory Ltd.	Prestressed Concrete Pipes	Nos.	N.A.	N.A.	3522	2841	..	..
	R.C.C. Pipes	"	"	"	3716	2692	..	..
	R.C.C. Collars	"	"	"	3530	1526	..	..
5. Kerala Soaps and Oils Ltd.	Soaps	Tonnes	4300	7900	2029	2566	47.2	32.5
	Shark Liver Oil Products	"	300	300	57	47	19.0	15.7
	Glycerine	"	N.A.	260	N.A.	36	..	13.8
6. Kerala State Drugs and Pharmaceuticals Ltd.	Tablets	Nos. (lac)	2514.00	2514.00	1481.69	1650.52	58.9	65.7
	Granules	Kgm.	20000.00	20000.00	6326.00	12643.00	31.6	63.3
	Capsules	Nos. (lac)	149.00	149.00	76.01	63.03	51.0	42.3
	Liquids	Lts (lac)	2.25	2.25	1.55	0.79	68.9	35.1
	Injectibles:							
	(a) Bottles	Nos.	4.50	4.50	2.81	Nil	62.4	..
	(b) Vials	"	15.00	15.00	8.24	Nil	54.9	..
(c) Ampules	Nos. (lac)	60.00	60.00	15.21	14.94	25.4	24.9	
7. Travancore Plywood Industries Ltd.	Plywood and Allied articles	Lakh Sq. Metres of 4 m. m. basis	22.80	27.38	11.52	10.00	50.5	36.5
8. Trivandrum Rubber Works Ltd.	Cycle Tyres	Nos.	1500000	1500000	367260	347034	24.5	23.1
	Cycle Rims	"	300000	300000	27059	102715	9.0	34.2
	Rubber Hoses	Metre	Not known	Not known	22853	7276	..	..
	Sheetings	Kgm.	"	"	156123	253236	..	..
	Camel Back	"	"	"	659289	207746	..	..
	Cycle	Nos.	"	"	606	277	..	..
	Latex Goods	Kgm.	"	"	54012	64008	..	..
9. Trivandrum Spinning Mills Ltd.	Cotton Yarn	Kgm.	25200 Ring Spindles 800 Doubling spindles	25200 Ring Spindles 800 Doubling spindles	..	485657	..	..

APPENDIX 6.4

Government Majority Companies—Main Features

(Rs. in lakhs)

Name of Company	Paid up Capital		Persons (Nos) employed		Net Profit/Loss		Value of Production		Sales during	
	1976-77	1977-78	1976-77	1977-78	1976-77	1977-78	1976-77	1977-78	1976-77	1977-78
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Chalakudy Refractories Ltd.*	16.62	36.03	160	141	(-)3.17	(-)8.22	12.00	6.06	8.02	6.90
2. Forest Industries (Travancore) Ltd.	17.71	17.71	158	161	(-)3.08	(+)0.28	41.93	52.60	40.51	46.98
3. Pallathra Bricks & Tiles Ltd.	18.56	18.56	117	115	(-)1.42	(-)3.68	14.11	18.13	14.06	17.78
4. Traco Cable Company Ltd.	114.92	119.92	234	232(+)	33.64	(+)18.28	384.00	313.59	383.00	395.81
5. Transformers & Electricals Kerala Ltd.	358.26	398.41	1077	1095	(+)67.40	(+)60.54	864.07	1105.31	728.00	1071.00
6. Travancore Cements Ltd.†	50.00	50.00	481	469	(+)21.61	(+)26.44	236.98	246.32	212.89	247.24
7. Travancore Cochin Chemicals Ltd.	634.75	634.75	1077	1100	(-)267.08	(-)258.68	896.10	588.00	600.68	585.00
8. Travancore Titanium Products Ltd.†	159.75	159.75	1250	1336	(+)98.83	(+)43.00	927.52	985.62	951.17	976.91
9. United Electrical Industries Ltd.†	54.90	58.90	498	498†(-)	20.84	(-)17.25	133.45	148.08	130.00	150.88
Total	1425.47	1494.03	5052	5147	-74.11	-139.29	3510.16	3463.71	3068.93	3496.88

* Formerly known as Chalakudy Potteries Ltd.
 † Calendar Year 1976 and 1977 respectively
 ‡ Last Year's figure retained.

APPENDIX 6.5

Production and Capacity Utilisation of Government Majority Companies

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation in Percentage	
			1976-77	1977-78	1976-77	1977-78	1976-77	1977-78
			(4)	(5)	(6)	(7)	(8)	(9)
1. Chalakudy Refractories Ltd.	Refractories	Tonnes	5000	5000	2113	1142	42.3	22.8
2. Forest Industries (Travancore) Ltd.	Wooden Doors, Windows, Furniture, etc.	Lakh man hours	7.26	7.26	3.08	2.41	42.4	33.2
3. Pallathra Bricks & Tiles Ltd	Sand Lime Bricks	Lakh nos.	120	120	94.08	70.43	78.4	59.7
4. Traco Cable Company Ltd.	A.A.C. and A.C.S.R. P.V.C. Covered conductors and Bare Copper Conductors	M.T. Lakh core meters	1500	1500	1152	1009	76.8	67.3
..	Telephone Cables	LKM	109.73	109.73	16.50	22.45	15.0	20.5
5. Transformers & Electricals Kerala Ltd.	Power Transformers Current & Potential Transformers	MVA	1000	1000	1225	1308	122.5	130.8
6. Travancore Cement Ltd.	White Cement	Nos.	2000	3000	1351	2006	67.6	66.9
7. Travancore Cochin Chemicals Ltd.	Caustic Soda	Tonnes	600	600	366	338	61.0	56.3
..	Hydro-Sulphate of Soda	..	N.A.	30000	..	34890	..	116.3
..	Sodium Sulphate	..	59400	59400	29394	27440	49.5	46.2
..	Chlorine	..	3000	2100	498	242	16.6	11.3
8. Travancore Titanium Products Ltd.	Titanium Dioxide	Tonnes	2100	2100	911	573	43.4	27.3
..	..	..	58080	52272	25867	24147	44.5	46.3
9. United Electrical Industries Ltd.	K.W.H. Metres	Nos.	24500	24500	9717	9888	39.7	40.4
..	Motor Control Gears	..	200000	200000	121370	115997	60.7	58.6
..	L.T. Switch Gear	..	11800	11800	4335	4445	36.7	37.7
..	Magneto Generators	..	600	600	132	115	22.0	19.2
..	11 K.V. Switch Gear	..	Not fixed	Not fixed	766	1522	..	..
..	Plastic Film Capacitors	Million	..	..	31	11	..	..
..	Electronic Items	Nos.	10	10	26.63	7.09..	266.90	70.3
..	..	Nos.	Not fixed	Not fixed	484	253	..	..

APPENDIX 6.6

Government of India Companies—Main features

(Rs. in lakhs)

Name of Company	Paid up Capital			Persons (Nos.) employed		Net Profit/Loss during		Value of production		Sales during			Sales in 1977-78			
	1976-77	1977-78	1978-79	1976-77	1977-78	1976-77	1977-78	1976-77	1977-78	1976-77	1977-78	1978-79	Within Kerala	Outside Kerala	Outside India	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. Cochin Refineries Ltd.*	700.00	700.00	434	447 (+)	187.96 (+)	107.63	14063.82	15133.42	21273.31	14977.68	NA	NA	Nil	14977.68		
2. Fertilisers & Chemicals, Travancore Ltd.	7401.98	11881.20	6756	7028 (-)	1396.00	(-)	886.00	5300.27	6321.35	8333.16	1953.55	6379.61	Nil	8333.16		
3. Hindustan Insecticides Ltd.	NA	NA	508	526 (+)	51.65	(+)	0.29	533.53	413.44	345.68	13.91	331.77	Nil	345.68		
4. Hindustan Latex Ltd.	130.00	130.00	714	748 (+)	19.25	(+)	14.24	224.69	211.24	249.40†	NA	NA	NA	249.40		
5. Hindustan Machine Tools Ltd.	NA	NA	2498	2494 (+)	72.81	NA	816.57	NA	841.15	NA	NA	NA	NA	NA		
6. Indian Rare Earths Ltd.	323.50	323.50	882	882**	151.31	(+)	93.70	800.38	928.03	858.90	Nil	373.10	485.80	858.90		
7. Instrumentation Ltd.	165.00	NA	173	194 (+)	3.64	(+)	70.90‡	163.00	214.90	313.25	1.10	312.15	Nil	313.25		
8. Modern Bakeries (India) Ltd.	NA	NA	149	155 (+)	23.30	(+)	3.45	140.58	164.15	97.00	97.00	Nil	Nil	97.00		

* Financial Year 1977-78 consists of seven months viz. 1-9-1977 to 31-3-1978.

† Bulk of this relate to the Department of Family Welfare, New Delhi.

** Last Year's figure retained

‡ Gross Profit.

APPENDIX 6.7

Government of India Companies—Production and Capacity Utilisation

Name of Company	Name of product	Unit	Installed capacity		Production during		Capacity utilisation in percentage	
			1976-77	1977-78	1976-77	1977-78	1977-78	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Cochin Refineries Ltd.	Liquefied Petroleum Gas	M.T	10,000	10,000	12,350	9,330	123.5	93.8
	Naphtha	"	2,67,000	2,67,000	1,95,798	1,38,549	73.3	51.9
	Motor Spirit	"	1,84,000	1,84,000	1,33,938	99,226	72.8	58.9
	Superior Kerosene	"	7,35,000	7,35,000	3,27,089	2,15,032	44.5	29.8
	High Speed Diesel	"						
	Light Diesel oil	"	7,07,000	7,07,000	7,66,942	5,35,644	110.2	77.5
	Furnace Oil	"	11,10,000	11,10,000	12,206	12,089	67.9	54.1
				7,54,357	6,00,639			
2. Fertilisers & Chemicals, Travancore Ltd.	Ammonium Sulphate	M.T	1,98,000	1,98,000	1,15,575	1,34,341	58.4	67.8
	Ammonium Phosphate 16-20	"	1,32,000	99,000	65,024	70,675	49.3	71.4
	Ammonium Phosphate 20:20	"	49,500	49,500	32,977	40,138	66.6	81.1
	Ammonium Chloride	"	24,750	24,750	6,050	6,878	24.4	27.8
	Sulphur Phosphate	"	49,500	49,500	23,327	30,677	47.1	61.9
	Sulphur Dioxide	"	8,250	8,250	905	1,502	10.9	18.2
	Oleum	"	6,600	6,600	2,353	1,931	35.7	29.3
	Synthetic Cryolite	"	1,650	1,650	26	182	1.6	11.0
	Urea	"	3,30,000	3,30,000	1,65,543	1,61,790	50.2	49.0
	Complex Fertilisers	"	N.A.	4,85,000	..	89,270	..	18.4
3. Hindustan Insecticides Ltd.	Technical DDT	Tonnes	1344	1344	1373	1153	102.2	85.8
	Formulated DDT	"	2688	2688	2695	2182	100.3	81.2
	Technical BHC	"	3000	3000	1572	1526	52.4	50.9
	Formulated BHC	"	3000	3000	3077	2010	102.6	67.0
	HILDAN 35 EC	Litres	NA	NA	NA	2683	..	..
4. Hindustan Latex Ltd.	Contraceptive Condoms	Million pieces	288	288	149.69	162.78	51.9	56.5
	Matcorological Balloons	Nos.	Not fixed	Not fixed	8873	3560	..	..
5. Hindustan Machine Tools Ltd.	Machine Tools & Accessories.	Nos.	1200	NA	672	NA	56.0	..
	Printing Machines & Accessories.	"	80	NA	55	NA	68.8	..
6. Indian Rare Earths Ltd.	Ilmenite	M.T	2,00,000	NA	79,242	NA	39.6	..
	Monozite	"	600	"	74	"	12.3	..
	Zircon	"	10,000	"	3,970	"	39.7	..
	Rutile	"	9,000	"	3,187	"	35.4	..
	Sillimanite	"	4,000	"	1,598	"	39.9	..
	Ziropac 'A'	"	..	"	279	"	..	..
	Zirfor	"	..	"	1,865	"	..	..
	Rare Earths Chloride	"	5,000	5,000	4,725	3,751	94.5	75.0
	Trisodium Phosphate	"	5,600	5,600	5,750	4398	102.7	78.5
	Thorium Hydroxide	"	820	820	1,440	1,170	175.6	142.7
	Rare Earths Fluoride	"	180	180	100	101	55.6	56.1
Rare Earths Oxide	"	60	60	48	17	80.0	28.3	
7. Indian Telephone Industries Ltd.	Electronic Switching Instruments.	Lines	NA	Not fixed	NA	896	..	..
8. Instrumentation Ltd.	Complementary Outfits to Instruments (Including Valves)	Nos.	NA	NA	786	1037	..	..
9. Modern Bakeries (India) Ltd.	Modern Bread	Lakh Nos. of 400gms.	123	123	137.83	83.59	112.1	67.9
	Modern Bun	Lakh Nos. of 50gms.	47.66	47.66	38.14	24.37	80.0	51.1

Wage Level of Coir Workers in Co-operative and Private Sectors at Different Centres

(in Rupees)

Operation	Chirayinkil		Triyandrum District		Kadakkavoor		Thrikkadavoor		Quilon District		Thrikkunnapuzha		Alleppey District		Vayalar West	
	Co-operative Sector	Private Sector	Co-operative Sector	Private Sector	Co-operative Sector	Private Sector	Co-operative Sector	Private Sector	Co-operative Sector	Private Sector	Co-operative Sector	Private Sector	Co-operative Sector	Private Sector	Co-operative Sector	Private Sector
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Retting (1000 huaks)	13 to 14	11 to 13	14	11 to 14	14	6.50 to 13	12	8 to 10	10.30	7 to 8.50	7.50	6 to 6.50				
Beating (100 huaks)	6	5 to 6	6	4.50 to 6	5	3.20 to 3.60	4.40	3.20 to 4	5.60	4.80 to 5	5	3.50 to 4				
Cleaning fibre for one ratt	2.20	2	1.70 to 2.20	1.75 to 2.60	1.75 to 2.20	1 to 1.50	1.80	1.45 to 1.50	2	1.50 to 1.75	0.70	..				
Spinning (1 ratt = 12 kg to 15 kg)	5.10	4 to 4.50	5.10	4	5.10	3 to 4	4.50	3.30 to 4	4.50	3.25 to 4	4	3 to 3.50				
Rotating—1 ratt	2.55	2 to 2.25	2.55	2	3	1.50 to 2.25	2.70	2 to 2.25	2.50	1.50 to 1.75	2.40	1.50 to 1.80				
Bundling and transportation (15 kg)	2.25	1.75 to 2	2.25	1.75 to 2.30	0.40	0.15	1	0.90 to 1.40	0.80	0.60 to 0.65	0.85	..				

APPENDIX 6.9

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)
1971-72	1415.95	987.88	764.54	11.88	6.20
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	31.85
1976-77	4629.58	2787.75	2435.33	57.81	36.91
1977-78	5479.62	3309.24	2963.54	62.52	44.33

APPENDIX 6.10

*Industry-wise Classification of Loans Sanctioned and Disbursed by the Kerala Financial Corporation
as on 1977-78*

(Rs. in lakhs)

Type of Industry	Amount Sanctioned	Percentage of Total Loan Sanctioned	Amount Disbursed	Percentage of Total Loan Disbursed
(1)	(2)	(3)	(4)	(5)
1. Stone Quarrying Clay & Sand Pits	35.35	0.65	16.03	0.48
2. Food Manufacturing Industries	865.80	15.80	497.96	15.05
3. Beverage Industries	18.88	0.34	16.88	0.51
4. Manufacturing Textiles	481.97	8.80	398.17	12.04
5. Manufacturing of Footwear and Other Wearing Apparels	54.11	0.99	23.89	0.72
6. Manufacturing of Wood Cork Except Furniture	139.45	2.54	105.15	3.18
7. Manufacturing Furniture and Fixtures	125.39	2.29	69.90	2.11
8. Manufacturing Paper Products	89.30	1.63	36.63	1.11
9. Printing, Publishing & Allied Industries	196.20	3.58	133.80	4.04
10. Manufacture of Rubber Products	405.88	7.41	223.83	6.75
11. Manufacturing of Chemical and Chemical Products	517.22	9.44	227.58	6.88
12. Manufacturing of Non-metallic Mineral Products	160.80	2.93	103.48	3.13
13. Basic Metal Industries	167.86	3.06	97.23	2.94
14. Manufacturing Metallic Products	178.12	3.25	83.32	2.52
15. Manufacturing of Machinery except Electrical Machinery	226.01	4.12	147.38	4.45
16. Manufacturing of Electrical Machinery	319.11	5.82	212.57	6.42
17. Manufacturing of Transport Equipments	73.16	1.34	46.49	1.41
18. Motion Picture Production	79.14	1.44	45.88	1.39
19. Hotels	361.21	6.59	211.83	6.40
20. Fishing Boat	154.31	2.82	54.48	1.62
21. Transport	381.61	6.96	302.14	9.15
22. Miscellaneous Industries	411.17	7.52	224.47	6.79
23. Manufacturing of Leather Goods	0.30	..	0.15	..
24. Industrial Estate	30.00	0.55	30.00	0.91
25. Petroleum Products	7.27	0.13	..	..
Total	5479.62	100.00	3309.24	100.00

APPENDIX 6.11

District-wise Sanction and Disbursement of Loans and Advances by the Kerala Financial Corporation as on 31-3-1978

(Rs. in lakhs)

Districts	Effective Sanction					
	Small Industries		Others		Total	
	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
BACKWARD REGION						
1. Trivandrum	362	404.44	28	197.81	390	602.25
2. Alleppey	249	465.11	25	199.86	274	664.97
3. Trichur	243	396.82	24	190.72	267	587.54
4. Malappuram	167	263.76	4	96.50	171	300.26
5. Cannanore	151	222.66	10	88.83	161	311.49
Sub Total	1172	1752.79	91	713.72	1263	2466.51
OTHER REGION						
1. Quilon	418	495.70	24	139.20	442	574.90
2. Kottayam	173	273.61	28	194.54	201	468.15
3. Idukki	36	20.62	3	13.16	39	33.78
4. Ernakulam	512	977.89	50	391.93	562	1369.82
5. Palghat	64	87.32	3	52.45	67	139.77
6. Calicut	359	323.22	16	100.34	375	423.56
7. Mahe and other areas	4	3.13	..	..	4	3.13
Sub Total	1566	2121.49	124	891.62	1690	3013.11
Grand Total	2738	3874.28	215	1605.34	2953	5479.62
Disbursement						
Districts	Small Industries		Others		Total	
	No.	Amount	No.	Amount	No.	Amount
	(8)	(9)	(10)	(11)	(12)	(13)
BACKWARD REGION						
1. Trivandrum	292	261.03	26	144.34	318	405.37
2. Alleppey	160	210.99	23	141.22	183	352.21
3. Trichur	179	233.43	22	101.34	201	334.77
4. Malappuram	126	149.81	4	34.82	130	184.63
5. Cannanore	97	95.49	10	73.41	107	168.90
Sub Total	854	950.75	85	495.13	939	1445.88
OTHER REGION						
1. Quilon	333	269.05	19	101.65	352	370.70
2. Kottayam	125	149.45	26	149.47	151	298.92
3. Idukki	24	15.82	1	1.05	25	16.87
4. Ernakulam	374	547.26	43	254.36	417	801.62
5. Palghat	36	39.85	3	49.50	39	89.35
6. Calicut	273	194.45	14	88.39	287	282.84
7. Mahe and other areas	4	3.06	..	..	4	3.06
Sub Total	1169	1218.94	106	644.42	1275	1863.36
Grand Total	2023	2169.69	191	1139.55	2214	3309.24

APPENDIX 6.12

Summary of Applications Received [Sanctioned/Disbursed etc. upto the year ending 31st March 1978 by the Kerala Financial Corporation

(Rs. in lakhs)

Particulars	During the year (1977-78)					
	Small Industries		Others		Total	
	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(4)	(4)	(5)	(6)	(7)
1. Applications Received	601	802.46	16	189.40	617	991.86
2. Applications Sanctioned	653	780.73	17	196.12	670	976.85
3. Applications Rejected/Withdrawn	172	349.85	3	31.60	175	381.45
4. Applications Cancelled or Reduced	45	110.87	4	15.94	49	126.81
5. Applications Sanctioned Effectively	608	669.86	13	180.18	621	850.04
6. Amount Disbursed	434	415.59	20	105.90	454	521.49
7. Applications Pending	631	414.86	9	83.90	640	498.76

Particulars	Since Inception up to 31-3-1978					
	Small Industries		Others		Total	
	No.	Amount	No.	Amount	No.	Amount
(1)	(8)	(9)	(10)	(11)	(12)	(13)
1. Applications Received	4077	6305.84	280	2197.75	4357	8503.59
2. Applications Sanctioned	2879	4151.65	239	1762.68	3118	5914.33
3. Applications Rejected/Withdrawn	567	1739.33	32	351.17	599	2090.50
4. Applications Cancelled or Reduced	141	277.37	24	157.34	165	434.71
5. Applications Sanctioned Effectively	2738	3874.28	215	1605.34	2953	5479.62
6. Amount Disbursed	2023	2169.69	191	1139.55	2214	3309.24
7. Applications Pending	631	414.86	9	83.90	640	498.76

Khadi and Village Industries-Production, Sales, Employment, Wages during 1977-78

Industry	Production value in Rs. lakhs	Sales value Rs. lakhs	Employment			Wages (Rs. in lakhs)			Total wages (Rs. lakhs)
			Full time	Part-time	Casual	Full time	Part-time	Casual	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Khadi									
(a) Khadi (Units aided by the Board)	30.55	34.29	3877	..	..	..	..	..	22.12
(b) Direct Centre (including Payyannur centre)	34.45	46.49	1989	..	..	..	..	..	14.59
B. Village Industries									
1. Village Oil	89.55	93.65	541	611	..	..	..	..	6.36
2. Village Pottery	66.51	70.43	3743	360	..	..	..	..	40.51
3. Fibre	342.44	374.51	50597	1190	..	..	..	..	259.35
4. Carpentry and Blacksmithy	10.03	10.84	132	10	..	..	..	..	1.68
5. Hand Made Paper	3.08	2.12	126	52	..	..	..	..	0.95
6. Gur Khandsari	74.96	86.02	1112	614	..	..	..	..	12.87
7. Palmgur	6.29	6.44	620	450	97	..	..	..	1.17
8. Bee Keeping	49.49	49.49	1250	8328	..	..	..	..	Self employed. 16.64
9. Village Leather	62.32	64.45	774	344	..	..	..	..	13.55
10. Lime	41.87	44.42	766	337	..	..	..	..	13.55
11. Non Edible Oil and Soap	2.94	8.51	16	310	2281	..	..	..	0.47
12. Cottage Match	13.23	13.83	323	631	..	..	..	..	2.59
13. Cane and Bamboo	14.65	14.55	799	1617	..	..	..	..	7.24
14. Fruit Processing and Fruit Preservation	6.40	9.15	160	..	..	..	..	..	..
15. Processing of Cereals and Pulses	14.97	14.94	264	38	..	..	..	..	3.38
Total	863.73	944.13	67089	14892	2378	..	..	..	403.47

APPENDIX 7.1

Distribution of Public Works Department Roads (District-wise) as on 1-4-1978 (Kms)

District	State Highway	Major District Roads	Other District Roads	Village Roads	Total
(1)	(2)	(3)	(4)	(5)	(6)
1. Trivandrum	117.566	525.548	744.283	68.866	1456.263
2. Quilon	272.709	666.934	1252.341	172.490	2364.474
3. Alleppey	188.845	240.413	785.707	..	1214.965
4. Kottayam	261.488	646.917	736.073	95.101	1739.579
5. Idukki	329.138	378.458	478.101	..	1185.697
6. Ernakulam	185.495	810.067	758.861	..	1754.423
7. Trichur	186.272	490.381	597.605	47.246	1321.504
8. Malappuram	160.530	399.075	257.293	225.148	1042.046
9. Palghat	142.753	595.421	296.457	123.224	1157.855
10. Calicut	99.254	501.748	133.130	326.726	1060.858
11. Cannanore	84.200	449.500	521.000	610.200	1664.900
Total	2028.250	5704.462	6560.851	1669.001	15962.564

APPENDIX 7.2

Number of Motor Vehicles having Valid Registration as on 31-3-1978 in Kerala State (District-wise)

District	Goods Vehicles		Buses		Cars	Stations Wagons	Taxi	Jeep	3 Wheelers	
	4 wheeler and Above	3 Wheeler including Tempo	Stage Carriages	Contract Carriages					Autorick shaws	Motorcycles Rickshaws
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Trivandrum	1875	157	142	91	10247	56	1804	1566	341	..
2. Quilon	2078	..	390	31	4970	1	1552	473	79	7
3. Alleppey	864	24	313	26	3761	1	1213	208	209	2
4. Kottayam	1476	35	458	40	2672	..	1511	97	341	..
5. Idukki	603	1	101	27	919	..	311	867	3	..
6. Ernakulam	2936	167	682	157	7509	10	1798	573	890	18
7. Trichur	1595	15	859	52	3360	..	2044	255	413	8
8. Palghat	1017	3	378	36	2582	4	975	282	387	..
9. Malappuram	735	..	380	21	2009	..	1032	184	81	..
10. Kozhikode	2989	22	895	43	4708	90	619	2011	702	22
11. Cannanore	1581	17	716	90	2606	42	1074	534	1139	1
12. K.S.R.T.C.	6	..	2739	1	7	2	..	32	..	..
Total	17755	441	7993	615	45350	206	13933	7082	4585	58

District	2 Wheelers		Tractor Trailer Articulated	Tractors	Tillers	Trailors	All Other Vehicles	Total
	Motorised Cycle	Motor Cycle/ Scooters						
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1. Trivandrum	..	8570	44	71	14	9	309	25296
2. Quilon	6	2777	90	9	5	3	60	12531
3. Alleppey	1	3026	35	80	31	24	29	9847
4. Kottayam	2	1717	28	2	13	3	22	8417
5. Idukki	4	539	189	37	7	9	119	3736
6. Ernakulam	4	8085	345	33	2	52	329	23590
7. Trichur	20	4209	387	48	36	6	172	13479
8. Palghat	4	3102	277	1082	156	12	35	10332
9. Malappuram	1	666	26	203	13	37	60	5448
10. Kozhikode	18	3871	175	156	84	68	145	16558
11. Cannanore	..	1561	176	1	5	1	90	9634
12. K.S.R.T.C.	..	..	..	..	..	..	38	2825
Total	60	38123	1772	1722	366	224	1408	141693

APPENDIX 7.3

Number of Road Accidents in which Motor Vehicles were involved in Kerala (1975-76 and 1976-77)

District	No. of road accidents		No. of Vehicles involved		No. of persons injured		No. of persons killed	
	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Trivandrum City	279	452	293	513	251	972	28	21
2. Trivandrum Rural	356	444	373	491	441	593	53	55
3. Quilon	452	477	497	520	550	797	88	85
4. Alleppey	557	488	557	482	491	512	71	79
5. Kottayam	476	448	553	457	516	443	67	67
6. Idukki	114	128	118	134	142	185	19	41
7. Ernakulam City	690	683	713	695	549	551	47	47
8. Ernakulam Rural	291	425	310	480	301	541	43	80
9. Trichur	352	452	381	472	400	422	104	90
10. Palghat	407	375	416	375	415	381	78	96
11. Malappuram	393	464	430	528	404	394	64	66
12. Kozhikode	609	639	670	756	536	617	134	79
13. Cannanore	414	393	425	399	463	531	65	66
Total	5390	5868	5736	6302	5459	6339	861	872

APPENDIX 7.4

Kerala State Road Transport Corporation
Routes, Route Distances, Number of Passengers

Transport District	No. of Schedules as on		No. of Routes as on		Routes km. as on		Gross Distance operated during (in lakh) Kms.		No. of passengers carried (lakhs)	
	31-3-1977	31-3-1978	31-3-1977	31-3-1978	31-3-1977	31-3-1978	1976-77	1977-78	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Trivandrum (Cl.)	295	244	466	314	20,518	15,161	323.43	288.42	663.81	785.45
2. Neyyattinkara	60	64	154	152	4,065	4,065	59.31	59.41	195.47	239.71
3. Trivandrum City	228	243	579	583	6,563	8,140	130.52	129.29	814.27	927.10
4. Quilon	122	134	132	160	7,335	8,286	124.30	124.89	340.38	360.92
5. Kayamkulam	80	83	105	108	4,264	4,233	80.02	77.56	260.62	238.75
6. Kottarakkara	146	166	202	333	12,579	13,926	147.26	153.87	423.16	299.51
7. Kottayam	297	305	501	469	24,914	22,253	293.06	308.22	730.92	771.97
8. Alleppey	112	137	66	153	4,749	4,826	112.96	108.39	333.30	350.36
9. Ernakulam	121	103	292	143	9,464	9,690	144.02	125.45	215.68	199.31
10. Alwaye	158	101	210	132	8,929	4,663	146.50	133.09	418.03	395.44
11. Trichur	235	254	178	222	16,454	16,535	256.90	251.54	445.65	449.63
12. Kozhikode	224	220	139	135	17,890	13,457	221.72	233.25	250.14	319.56
13. Nedumangad	..	72	..	138	..	4,976	..	21.46	..	81.53
14. Muvattupuzha	..	60	..	86	..	4,484	..	17.00	..	37.96
15. Chengannur	..	69	..	147	..	4,956	..	21.84	..	67.49
16. Cannanore	..	60	..	65	..	6,081	..	23.39	..	31.76
17. Workshops & Offices	..	..	..	..	..	..	..	4.26	..	..
Total	2,078	2,315	3,024	3,340	1,37,724	1,45,434	2,039.99	2,081.27	5,111.43	5,556.45

APPENDIX 7.5

Details of Goods Traffic originating at different Railway Stations
in Kerala State during the year 1977-78
(District-wise)

District	Tonnes originating (1000 tonnes)	Freight Earnings (over all) (in Lakh Rs.)	No. of Wagons loaded
(1)	(2)	(3)	(4)
1. Cannanore	48.14	57.77	2292
2. Kozhikode	119.83	199.22	5904
3. Malappuram	26.69	19.36	1538
4. Palghat	1241.69	50.83	56562
5. Trichur	285.50	286.34	12548
6. Ernakulam	1654.90	1188.90	82329
7. Kottayam	66.04	125.11	2913
8. Alleppey	23.35	34.34	1208
9. Quilon	66.61	100.03	4278
10. Trivandrum	30.80	30.84	1597
Total	3563.55	2092.74	171169

APPENDIX 7.6

Passenger Traffic Carried Both ways from 1972-73 to 1977-78 (Airways)

Destination (1)	From Cochin					
	1972-73 (2)	1973-74 (3)	1974-75 (4)	1975-76 (5)	1976-77 (6)	1977-78 (7)
1. Bangalore	39785 (100)	14988 (36.16)	9749 (24.50)	14349 (36.07)	14447 (36.31)	18007 (45.26)
2. Bombay	19132 (100)	32585 (170.32)	49970 (261.19)	55158 (288.90)	56004 (292.72)	57662 (301.39)
3. Cochin	..	..	..	..	..	..
4. Coimbatore	6686 (100)	5708 (85.37)	3769 (56.37)	6301 (94.24)	6985 (104.47)	6599 (98.70)
5. Colombo	..	..	..	..	..	..
6. Goa (Dabolim)	..	..	..	..	..	..
7. Madras	15673 (100)	12393 (78.69)	19964 (127.98)	23852 (152.19)	27457 (175.19)	32807 (209.32)
8. Madurai	1949 (100)	173 (8.88)	..	..	..	..
9. Male	..	..	..	..	..	..
10. Mangalore	..	..	..	..	205 (100)	838 (408.78)
11. Trichy	..	..	..	..	..	..
Total	89225 (100)	65187 (78.93)	89452 (100.27)	99660 (119.75)	105098 (126.28)	115913 (139.28)

Destination (1)	From Trivandrum					
	1972-73 (8)	1973-74 (9)	1974-75 (10)	1975-76 (11)	1976-77 (12)	1977-78 (13)
1. Bangalore	5544 (100)	150 (2.71)	..	..	..	..
2. Bombay	5605 (100)	3719 (66.35)	10704 (199.72)	35955 (630.78)	58560 (1044.78)	86036 (1534.99)
3. Cochin	14605 (100)	9779 (66.96)	11864 (81.23)	14101 (96.55)	19094 (130.73)	19160 (131.18)
4. Coimbatore	..	..	..	..	..	..
5. Colombo	..	1618 (100)	2539 (156.92)	5953 (367.92)	6387 (394.75)	9882 (610.75)
6. Goa (Dabolim)	..	..	1754 (100)	4922 (246.41)	4392 (250.40)	..
7. Madras	25690 (100)	21165 (82.39)	21148 (82.32)	20413 (79.46)	26700 (103.93)	40385 (157.20)
8. Madurai	2610 (100)	668 (25.59)	25 (0.96)	1 (0.04)	545 (20.88)	2228 (85.36)
9. Male	..	..	..	142 (100)	1815 (1278.17)	9323 (2340.14)
10. Mangalore	..	..	..	..	..	..
11. Trichy	..	..	..	..	..	..
Total	54054 (100)	37099 (68.69)	48034 (88.86)	80287 (148.53)	117493 (217.96)	161014 (297.88)

Figures in brackets give indices.

APPENDIX 7.7
Import and Export Tonnage of Cargo Handled and Revenue Collected at the Intermediate and Minor Ports of Kerala During 1977-78

Ports	Import (Tonnes)			Export (Tonnes)			Total (Tonnes)			Revenue Earned during	
	Coastal	Foreign	Total	Coastal	Foreign	Total	Coastal	Foreign	Total	1976-77 Rs.	1977-78 Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Alleppey	..	..	..	..	38,388	38,388	..	38,388	38,388	61,341	76,082
2. Calicut	9,215	..	9,215	59,573	20,604	80,177	68,788	20,604	89,392	5,19,730	3,59,445
3. Nedavakara	..	..	..	..	96,749	96,749	..	96,749	96,749	6,40,512	8,99,723
4. Thiruvandrum	..	..	..	..	..	..	..	..	..	5,529	5,166
5. Qulion	..	..	..	..	..	..	..	..	..	19,769	..
6. Azhikode (Munambam)	..	..	..	..	..	..	..	..	..	16,851	4,410
7. Ponnani	..	..	..	..	..	..	..	..	..	5,427	4,724
8. Badagara	..	..	..	..	..	..	..	..	..	1,005	1,095
9. Tellicherry	..	..	..	..	..	..	..	..	..	6,658	2,312
10. Cannanore	..	..	..	..	..	..	..	..	..	3,727	..
11. Azhikkal	3,751	..	3,751	8,543	..	8,543	12,294	..	12,294	93,295	57,406
12. Kasargod	..	..	..	..	..	..	..	..	..	1,794	1,086
Total	12,966	..	12,966	68,116	1,55,741	2,23,857	81,082	1,55,741	2,36,823	13,75,638	13,51,389

APPENDIX 7.8

Number and Tonnage of Steamers and Sailing vessels which called at the Intermediate and Minor Ports of Kerala during 1977-78

Ports	Coastal Foreign	Steamers No.	Tonnage	Sailing Vessels No.	Tonnage	Total No. of Vessels	Total Tonnage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Intermediate Ports</i>							
1. Alleppey	Coastal Foreign	.. 17	.. 38,388	.. ..	.. ..	17	38,388
2. Calicut (including Beypore)	Coastal Foreign	10 ..	2,726 ..	714 28	78,029 5,967	724 28	80,755 5,967
3. Neendakara	Coastal Foreign	.. 13	.. 56,415	.. ..	.. ..	13	56,415
<i>Minor Ports</i>							
4. Trivandrum	Coastal Foreign	....	....	....	....	..	..
5. Quilon	Coastal Foreign	....	....	....	....	..	..
6. Azhikode	Coastal Foreign	....	....	....	....	..	..
7. Ponnani	Coastal Foreign	.. ..	.. ..	17 ..	1,789 ..	17	1,789
8. Badagara	Coastal Foreign	....	....	....	....	..	..
9. Azhikkal	Coastal Foreign	.. ..	.. ..	131 ..	13,363 ..	131	13,363
10. Tellicherry	Coastal Foreign	....	....	....	....	..	..
11. Cannanore	Coastal Foreign	....	....	....	....	..	..
12. Kasargod	Coastal Foreign	....	....	....	....	..	..
Total	Coastal Foreign	10 30	2,726 94,803	862 28	93,181 5,967	872 58	95,907 1,08,770
Total for 1977-78		40	97,529	890	99,148	930	1,96,677
Total for 1976-77		36	96,212	937	1,03,196	973	1,99,408

APPENDIX 7.9

Tonnage of Principal Commodities of Imports into Cochin Port during the year 1977-78 (Tonnes)

Commodity	Total		Grand Total
	Coastal	Foreign	
(1)	(2)	(3)	(4)
1. Rice and Paddy	..	303	303
2. Other Grains Including Pulses and Flour	22	25844	25866
3. Coal	139229	..	139229
4. Cashewnuts	..	37802	37802
5. Machinery	64	6481	6545
6. Iron and Steel	252	5397	5649
7. Tin Plate	28	3433	3461
8. Motor Vehicles and Parts	8	15	23
9. Chemicals and Chemical Preparations.	510	845	1355
10. Oil Seeds Including Copra and Groundnut	209	542	751

(1)	(2)	(3)	(4)
11. Drugs and Medicines	..	11	11
12. Paper, Old Newspaper and Stationery	233	16724	16957
13. Cotton, Raw and Waste	2855	24938	27793
14. Oilman Stores, Provisions and Spices	..	16232	16232
15. Sulphur	..	118704	118704
16. Rock Phosphate	1004	256837	257841
17. Fertilisers	..	86287	86287
18. Liquid Ammonia	..	35036	35036
19. Salt	444	..	444
20. Zinc Concentrate	..	20687	20687
21. Calcined Bauxite	14646	..	14646
22. Soda	7359	..	7359
23. Candles, Paraffin Wax and Tallow	..	18	18
24. P. O. L.	278152	2703508	2981660
25. Transhipment Cargo	174	6865	7039
26. Miscellaneous	1303	112410	113713
Total	446492	3478919	3925411

APPENDIX 7.10

Tonnage of Principal Commodities of Exports from Cochin Port during 1977/78

Commodity	Total		Grand
	Coastal	Foreign	Total
	(2)	(3)	(4)
1. Coir Products	18	43693	43706
2. Tea	1	64321	64322
3. Rubber	936	11985	12921
4. Coffee	1	15049	15050
5. Coconuts	62	..	62
6. Copra	120	..	120
7. Cashew Kernels	..	43279	43279
8. Chemicals	1081	14258	15339
9. Cotton, Raw and Waste	7	293	300
10. Rice and other Foodgrains	3678	13642	17320
11. Pepper	..	26150	26150
12. Ginger	..	7107	7107

	(1)	(2)	(3)	(4)
13. Cardamom	408	408
14. Turmeric	3251	3251
15. Coconut Oil	..	1	..	1
16. Cashew Shell Liquid	..	5	2677	2682
17. Lemongrass Oil	..	1	153	154
18. Timber	..	539	17034	17573
19. Marine Products	..	2	42047	42049
20. Oil Cake	1020	1020
21. Machinery	..	144	7249	7393
22. Iron and Steel	..	179	2346	2525
23. Mineral Sand Including Granite	..	661	7796	8457
24. Cement	..	1613	12354	13967
25. P. O. L.	..	826586	..	826586
26. Transshipment Cargo	..	6776	263	7039
27. Miscellaneous	..	3628	66576	70204
Total	..	846034	402951	1248985
Bunkers	..	43837	69309	113146
Total (Including Bunkers)	..	889871	472260	1362191

APPENDIX 7.11

Growth of Post Offices in Kerala

Sl.No.	Category of Office	Offices 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)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1.	Head Offices	12	22	28	29	31	32	32	38
2.	Sub Post Offices	352	967	1204	1219	1233	1229	1238	1270
3.	Branch Offices	2334	2732	2786	2774	2780	2836	2833	2915
	Total	2898	3721	4018	4022	4044	4097	4103	4218

APPENDIX 7.12

Area and Population Served by Each Post Office in the various Districts in Kerala

Name of District	Area Served by Each P.O. in sq. kms.	Population Served by Each P.O.
(1)	(2)	(3)
1. Trivandrum	6.41	7436
2. Quilon	11.28	6805
3. Alleppey	4.82	6289
4. Kottayam	16.42	4576
5. Idukki	25.31	4408
6. Ernakulam	9.91	7588
7. Trichur	6.69	5435
8. Palghat	10.84	4800
9. Malappuram	10.25	6045
10. Kozhikode	8.38	5476
11. Cannanore	11.50	5516
Average	9.21	5852

APPENDIX 7.13

Statistics of Post Offices as on 1-4-1978 in Kerala State

Division	Number of Post Offices			Total
	Head Offices	Sub Offices	Branch Offices	
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	3	119	220	342
2. Quilon	3	123	284	410
3. Alleppey	2	67	105	174
4. Thiruvella	2	78	137	217
5. Kottayam	4	127	258	389
6. Idukki	1	53	147	201
7. Ernakulam	1	64	56	121
8. Alwaye	2	57	150	209
9. Trichur	2	80	196	278
10. Irinjalakuda	1	56	118	175
11. Palghat	3	87	133	223
12. Ottapalam	1	46	136	183
13. Malappuram	2	84	269	355
14. Calicut	3	111	331	445
15. Cannanore	2	66	229	297
16. Tellichery	1	52	146	199
Total	33	1270	2915	4218

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	708	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	594	1094	1688*

* Provisional.

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

(1)	(2)	(3)	(4)
1968-69	787	1788	2575
1969-70	787	1785	2572
1970-71	808	1794	2602
1971-72	811	1769	2580
1972-73	811	1759	2570
1973-74	830	1780	2610
1974-75	857	1781	2638
1975-76	880	1726	2606
1976-77	883	1835	2718
1977-78	886	1880	2766
1978-79	888	1829	2717*

* Provisional

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	6873
1967-68	2864	4076	6940
1968-69	2805	4112	6917
1969-70	2805	4123	6928
1970-71	2804	4091	6895
1971-72	2804	4091	6895
1972-73	2798	4089	6887
1973-74	2807	4087	6894
1974-75	2900	4075	6975
1975-76	2910	4065	6975
1976-77	2883	4109	6992
1977-78	2849	4120	6969
1978-79	2870	4118	6988*

* Provisional

APPENDIX 9.4

District-Wise Number of Schools Sanctioned (1978-79)

District	L. P. Schools		U. P. Schools		High Schools	
	Government	Private	Government	Private	Government	Private
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	1	..	..	..	..	..
Quilon	..	1	..	2	..	4
Alleppey	..	..	..	..	..	..
Kottayam	..	..	..	..	..	..
Idukki	4	..	..	..	..	..
Ernakulam	..	1	..	1	..	1
Trichur	1	..	..	4	..	0
Palghat	8	..	..	..	..	..
Malappuram	4	..	..	..	..	..
Kozhikode	1	..	..	..	..	..
Cannanore	2	..	..	..	..	..
Total	21	2	..	7	..	18

APPENDIX 9.5
Standard wise Strength of Students (1978-79)

Standard	Government		Private		Total	
	Boys	Girls	Boys	Girls	Boys	Girls
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I	148453	136434	187763	182715	336216	319149
II	155100	149161	208298	190773	363398	339934
III	153909	142070	186684	175654	340593	317724
IV	144981	134906	180733	166368	325714	301274
V	111042	100467	194793	173334	305835	273801
VI	111212	89895	181457	171451	292669	261346
VII	105802	85869	193810	177595	299612	263464
VIII	105049	90854	164218	150001	269267	240855
IX	77695	68075	131812	123929	209507	192004
X	55418	49327	91113	89912	146531	139239
Total	1168661	1047058	1720681	1601732	2889342	2648790

APPENDIX 9.6
Progress of Enrolment in the Different Stages of School Education

Year	No. of Students in Primary Stage	Index of Growth	No. of Students in Secondary Stage	Index of Growth	Total	Index of Growth
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1960-61	2939408	100	330893	100	3270301	100
1961-62	3041388	103	416364	126	3457752	106
1962-63	3131503	107	490564	148	3622067	111
1963-64	3263617	111	554819	168	3818436	117
1964-65	3424765	117	585336	177	4010101	123
1965-66	3552693	121	615143	186	4167836	127
1966-67	3688679	125	639959	193	4328638	132
1967-68	3784864	129	666773	202	4451637	136
1968-69	3912830	133	702384	212	4615204	141
1969-70	3989363	136	709290	214	4698653	144
1970-71	4074808	139	724724	219	4799532	147
1971-72	4229533	144	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

APPENDIX 9.7
Number of students appeared and Passed the S. S. L. C. Examination in 1977 and 1978
(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)	(7)	(7)
March 1977	1,85,404	1,23,621	3,09,025	77,372	51,589	1,28,961
September 1977	41,749	32,040	73,789	6,611	5,179	11,790
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

APPENDIX 9.8
Distribution of Teachers (1977-78)

Section (1)	No. of Teachers (2)
Lower Primary	76159
Upper Primary	53029
Secondary	36974
Training	1039*
Total	167201

*Excluding teachers in L. P. and U. P. sections of the training schools.

APPENDIX 9.9
Number of Arts and Science Colleges and Training Colleges in Kerala - District-wise (1978-79)

District (1)	No. of Arts and Science Colleges			No. of Training Colleges		
	Government (2)	Private (3)	Total (4)	Government (5)	Private (6)	Total (7)
1. Trivandrum	5	11	17	1	2	3
2. Quilon	..	13	13	..	2	2
3. Alleppey	..	14	14	..	3	3
4. Kottayam	1	16	17	..	4	4
5. Idukki	..	2	2	..	..	..
6. Ernakulam	2	15	17	..	2	2
7. Trichur	3	12	16	1	..	1
8. Palghat	3	5	8	..	1	1
9. Malappuram	2	4	6	..	..	..
10. Kozhikode	5	7	11	1	1	2
11. Cannanore	4	6	9	1	..	1
Total	25	105	130	4	15	19

APPENDIX 9.10
Number of Colleges in the Different Universities (1977-78)

College (1)	Kerala University			Cochin University			Calicut University			Total		
	Govern- ment (2)	Private (3)	Total (4)	Govern- ment (5)	Private (6)	Total (7)	Govern- ment (8)	Private (9)	Total (10)	Govern- ment (11)	Private (12)	Total (13)
1. Arts and Science Colleges (First Grade)	7	51	58	..	..	..	11	30	41	18	81	99
2. Junior Colleges	1	20	21	..	..	..	6	4	10	7	24	31
3. Training Colleges	1	13	14	..	..	..	3	2	5	4	15	19
4. Engineering Colleges	1	2	3	1	..	1	1	1	2	3	3	6
5. Medical Colleges	3	..	3	..	..	..	1	..	1	4	..	4
6. Ayurveda Colleges	2	..	2	1	1	2	3	1	4
7. Law Colleges	2	1	3	1	3	1	4
Total	17	87	104	1	..	1	24	38	62	42	125	167

25 +

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34
105

APPENDIX 9.11

Enrolment by Stages in Arts & Science Colleges in Kerala
(1977-78)

Stages	Male	Female	Total
(1)	(2)	(3)	(4)
Pre-Degree	57192 (53.32)	50020 (46.68)	107152 (58.06)
Degree	36698 (50.57)	35871 (49.43)	72569 (39.32)
Post Graduate	2313 (47.87)	2519 (52.13)	*4832 (2.62)
Total	96143 (52.10)	88410 (47.90)	184553 (100.00)

* Excludes Post Graduate Students in the University Teaching Department.
Figures in brackets indicate percentage to the total number of students.

APPENDIX 9.12

Polytechnics in Kerala 1978-79

Name of District	Government	Private	Total
(1)	(2)	(3)	(4)
1. Trivandrum	2	..	2
2. Quilon	..	1	1
3. Alleppey	..	2	2
4. Kottayam	1	..	1
5. Idukki	..	..	..
6. Ernakulam	1	..	1
7. Trichur	3	1	4
8. Palghat	1	..	1
9. Malappuram	1	1	2
10. Calicut	2	..	2
11. Cannanore	1	1	2
Kerala	12	6	18

APPENDIX 9.13

Number of Industrial Training Institutes in Kerala (1978-79)

District	Government	Private	Total
(1)	(2)	(3)	(4)
1. Trivandrum	3	5	8
2. Quilon	1	5	6
3. Alleppey	1	6	7
4. Kottayam	1	2	3
5. Idukki	..	1	1
6. Ernakulam	1	8	9
7. Trichur	1	1	2
8. Palghat	1	..	1
9. Malappuram	1	1	2
10. Kozhikode	1	..	1
11. Cannanore	1	..	1
Kerala	12	29	41

APPENDIX 9.14

Number of Institutions, Enrolment and Teachers in Technical Institutions 1977-78

Type of Institution	Number of Institution	Enrolment	Teachers
(1)	(2)	(3)	(4)
Engineering Colleges	6	4201	902
Polytechnics	18	6726	874
Junior Technical Schools	21	3498	521

APPENDIX 9.15

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
1968-79	49.21	251
1969-70	49.07	292
1970-71	52.53	312
1971-72	57.64	342
1972-73	59.71	355
1973-74	67.39	400
1974-75	86.17	512
1975-76	105.69	628
1976-77	116.73	694
1977-78	124.80	742
1978-79	135.46	805

APPENDIX 9.16

Cost per Pupil in the Different Stages of School Education

(Amount in Rs.)

Year	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	(R.E.)	193.61
		363.02

APPENDIX 9.17

Per capita Government Expenditure on Education in Kerala

Year	Population (Lakhs)	Government Expenditure on Education (Rs. in lakhs)	Expenditure per head (Rs. in lakhs)
(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	31.75
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	16453.70	66.83

Annex 9.16

Medical Institutions and Beds in Kerala as on 31-3-1978

District	Hospitals including Mobile Dental Hospitals		Primary Health Centres including MCH Centres		Dispensaries		M.C.H. Centres		T.B. Clinics T. B. Centres		Grand in aid- Institutions		Others		Total		
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)		(16)	(17)	(18)
Trivandrum	19	4661	18	188	21	27	146	1	20	1	28	3	452	..	..	90	5495
Quilon	12	1493	20	250	22	34	120	..	..	4	86	1	120	..	..	98	2089
Alleppey	12	2885	20	215	16	32	81	..	..	2	12	3	575	..	..	85	3768
Kottayam	13	2096	15	148	12	20	111	..	..	2	48	1	200	..	..	63	2608
Idukki	4	194	4	40	12	23	97	..	..	..	..	..	..	..	..	43	331
Ernakulam	20	2216	17	190	14	33	198	..	..	4	40	2	561	..	..	90	3145
Trichur	18	2970	18	216	17	29	81	..	..	1	..	1	170	2	..	86	9497
Palghat	10	948	11	129	16	34	155	..	..	1	52	..	..	1	..	73	1294
Malappuram	8	642	12	96	17	29	74	..	..	2	32	..	..	1	..	69	864
Kozhikode	10	3274	15	102	20	27	147	..	..	1	..	..	..	..	..	73	3423
Cannanore	13	1960	13	177	34	65	206	..	..	2	..	..	..	1	..	128	2343
Kerala	199	23,339	163	1751	201	333	1416	1	20	20	318	11	2018	5	..	893	28662

APPENDIX 9.19

District-wise Distribution of Institutions and Beds under Ayurvedic System of Medicine as on 31-3-1978.

Districts	Hospitals		No. of Dispensaries	Total No. of Institutions
	No. of Hospitals	No. of Beds		
(1)	(2)	(3)	(4)	(5)
Trivandrum	8	390	36	44
Quilon	5	80	36	41
Alleppey	7	96	41	48
Kottayam	6	86	20	26
Idukki	1	20	16	17
Ernakulam	9	174	30	39
Trichur	11	174	55	66
Palghat	3	80	37	40
Malappuram	6	96	36	42
Kozhikode	5	60	35	40
Cannanore	6	106	59	65
Total	67	1362	401	468

APPENDIX 9.20

District-wise Distribution of Institutions and Beds under Homoeopathic System of Medicine as on 31-3-1978

District	Hospitals		Dis-pensaries No.	Total No. of Institutions
	No. of Hospitals	No. of Beds		
(1)	(2)	(3)	(4)	(5)
Trivandrum	1	50	9	10
Quilon	..	..	11	11
Alleppey	1	25	14	15
Kottayam	1	50	12	13
Idukki	1	..	8	8
Ernakulam	..	25	9	10
Trichur	1	25	6	7
Palghat	1	25	11	12
Malappuram	1	25	10	11
Kozhikode	1	50	9	10
Cannanore	1	25	14	15
Total	9	275	113	122

APPENDIX 9.21

Achievements under Family Planning Programme for the years 1976-77 and 1977-78

District	1976-77				1977-78 (Provisional)			
	Vasectomy	Tubectomy	IUD	Induced Abortion (MTP)	Vasectomy	Tubectomy	IUD	Induced Abortion (MTP)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Trivandrum	11459	19415	1212	8443	1563	11874	553	7713
2. Quilon	12602	12114	2438	1765	1053	9992	1272	2048
3. Alleppey	17340	6065	3766	2027	2659	5887	2295	2354
4. Kottayam	12004	6844	1744	3244	1281	5928	1900	4390
5. Idukki	3906	2835	687	351	605	1514	414	136
6. Ernakulam	13475	8732	2613	2735	2218	7920	1476	3641
7. Trichur	12096	7895	1199	2282	1936	6519	550	2366
8. Palghat	10197	2901	1519	523	473	2275	863	664
9. Malappuram	9311	2772	970	464	502	2205	567	234
10. Kozhikode	13627	9380	519	3059	978	8132	253	2358
11. Cannanore	13812	5613	1184	496	1920	4979	478	1740
Kerala	129829	84566	17851	25389	15188	67225	10621	28276

APPENDIX 9.22

District-wise progress of works under urban water Supply Schemes for the year 1977-78

District	No. of Schemes in operation at the end 1977-78	No. of Schemes completed during 1977-78	No. of Schemes under construction at the end of 1976-77	No. of Towns having protected water supply at the end of 1976-77	No. of Towns having protected water supply at the end of 1977-78
(1)	(2)	(3)	(4)	(5)	(6)
1. Trivandrum	3	..	1	3	3
2. Quilon	1	..	1	1	1
3. Alleppey	5	..	..	5	5
4. Kottayam	3	..	1	3	3
5. Idukki	..	..	..	..	..
6. Ernakulam	5	..	..	5	5
7. Trichur	4	..	2	4	4
8. Palghat	1	1	1	1	2
9. Malappuram	1	..	1	1	1
10. Kozhikode	2	..	..	2	2
11. Cannanore	3	..	..	3	3
Total	28	1	7	28	29

APPENDIX 9.23

District-wise Progress of works under Rural Water Supply Schemes for the Year 1977-78

District	Number of schemes in operation at the end of 1976-77	Number of schemes completed during 1977-78	Number of schemes under construction at the end of 1977-78
(1)	(2)	(3)	(4)
1. Trivandrum	58	4	15
2. Quilon	15	7	16
3. Alleppey	58	5	21
4. Kottayam	87	5	90
5. Idukki	16	3	10
6. Ernakulam	54	8	39
7. Trichur	59	4	24
8. Palghat	66	5	18
9. Malappuram	29	6	14
10. Kozhikode	54	3	17
11. Cannanore	83	4	23
Total	609	54	226

APPENDIX 9.24

Water Supply Schemes taken up with Life Insurance Corporation Funds

District	Schemes in Operation at the end of 1976-77		Schemes Completed during 1977-78		Schemes under Construction at the end of 1977-78		Expenditure during 1977-78 (Rs. in lakhs)	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Trivandrum	3	24	..	..	..	..	..	1.277
2. Quilon	..	10	..	3	1	4	4.23	14.282
3. Alleppey	5	16	..	1	..	3	..	2.680
4. Kottayam	2	27	..	2	1	2	21.68	2.154
5. Idukki	..	3	..	..	..	..	..	..
6. Ernakulam	5	17	..	..	..	..	..	..
7. Trichur	3	20	..	..	2	2	51.66	1.428
8. Palghat	..	15	1	2	1	2	50.24	2.885
9. Malappuram	1	17	..	2	1	1	14.90	4.076
10. Kozhikode	2	11	..	1	..	..	..	0.913
11. Cannanore	3	32	..	..	..	1	..	0.703
To	24	192	1	11	6	15	142.71	29.798