

**ECONOMIC
REVIEW
1977**



GOVERNMENT OF KERALA

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STATE PLANNING BOARD
TRIVANDRUM

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CHAPTER I
GENERAL REVIEW

Trends in National Economy

Overall Situation

On the basis of available indicators, it has been estimated that the growth in country's national income during the year 1977-78 would be about 5 percent, as compared with a growth rate of only 1.6 percent registered during the previous year. A seven percent rise in agricultural production, with food output touching a level of 121 million tonnes, as against 111 million tonnes during 1976-77, has been the main contributory factor to this turnaround. On the industrial front, however, the performance has been none too impressive. The industrial sector recorded a growth rate of only 5.2 percent during the year which is only just half the growth rate of the previous year which had recorded an increase of 10.4 percent. Production in important industries like electricity generation, coal, steel, cement and commercial vehicles

showed a declining rate of growth, while production in the cotton textile industry actually had gone down. Foreign exchange reserves have been growing at a steady pace. Referring to these unutilised reserves the latest Economic Survey of the Government of India, has highlighted the paradox of a poor country lending abroad and has pointed out the need to draw upon these swelling reserves by a judicious plan of imports from abroad as well as by expanding the investment base of the economy. The rise in exchange reserves is an expression of higher exports and the steady flow of remittances and a stagnant or lower import bill, which, however, is not a symptom of a healthy, moving economy. The Survey has also pointed out that the savings in the Government sector have not been rising, and the surpluses of public enterprises were also not showing the required kind of lift. Trends relating to selected economic indicators in recent years are indicated in Table 1.1.

TABLE 1.1
Selected Economic Indicators

	1974-75	1975-76	1976-77	1977-78 Estimate
	Percentage change over the previous year			
1. Gross national product (at 1970-71 prices)	0.5	8.5	1.6	5.0
2. Agricultural production	-3.5	15.6	-6.7	7.0
3. Foodgrain production	-4.6	21.0	-7.8	10.0
4. Industrial production	2.6	6.1	10.4	5.2
5. Electricity generated	5.2	13.5	11.8	2.5
6. Wholesale prices	25.2	-1.1	2.1	6.6*
7. Money supply	6.9	11.3	20.3	8.7
8. Imports (in current prices)	52.9	16.5	-3.6	3.8
9. Exports (in current prices)	31.9	21.4	27.2	9.3

* Average of April—December 1977 over average of April—December, 1976.

Price Trends

1.2 A curious feature of the price situation during the year under review has been that while the wholesale price index rose by less than one percent between March and December, 1977, the consumer price index went up in the same period substantially by 5.8 per cent. This may indicate that the middleman made large profits at the expense of the producer as well as the consumer. A comparison of the trends in wholesale prices over the year as a whole—that is from January 1977 to January 1978—shows that while the

wholesale price increase was only a nominal 2.3 per cent, the increase in some 'groups' was much higher. Prices of foodgrains stood higher by 8.6 per cent largely on account of pulses whose prices increased during the period by as much as 38.4 per cent. Imports did not necessarily help to bring down prices for the domestic consumer and this had prominently been the case with edible oils. Price situation has thus been under constant pressure and would, therefore, require continuous watch in the coming months.

Money and Banking

1.3 During the current financial year, (till January 20, 1978) money supply had shown an increase of Rs. 1,401 crores or 8.7 per cent over the corresponding period of last year. At the beginning of the year 1978, aggregate money supply with the public stood at Rs. 17,583 crores. A significant feature of the monetary situation has been the substantial increase in net bank credit to Government during the year amounting to Rs. 1,002 crores, as compared with only Rs. 63 crores during the same period last year.

1.4 A disquieting feature in respect of the commercial bank deposits has been the decline in the rate of growth of time deposits, which are an important form of savings. This could, perhaps, indicate that those who held time deposits earlier due to the interest earned on them, particularly on short term maturities, now find the rate offered an insufficient compensation for the loss of liquidity. This may have resulted in a conversion of time deposits into demand deposits. As far as the foreign exchange assets of the banking sector are concerned, they continued to show increases and amounted to Rs. 1,544 crores during the year as compared with the previous year's increase of Rs. 1,196 crores.

1.5 On the whole, the monetary and credit situation during 1977-78 presented a mixed picture. According to the Government of India's Economic Survey, "although the overall rate of monetary expansion has been somewhat lower during the current financial year so far, the basic factors of an increase in net foreign exchange assets of the banking sector and in net bank credit to Government have continued to provide an expansionary impulse to money supply." The situation is capable of sparking inflationary price increases at slightest disturbances in the supply position of essential commodities as the liquid monetary resources in the economy can be easily used for speculative inventory building.

National Income Saving and Investment

1.6 According to the white paper issued by the Central Statistical Organisation, at current prices, the national income in 1976-77 is estimated at Rs. 64,279 crores and per capita income Rs. 1,049. During the previous year (1975-76) the corresponding figures were Rs. 60,596 crores and Rs. 1,008 respectively. If computed in real terms (at 1970-71 prices), national income in 1976-77 would work out to Rs. 40,164 crores and per capita income at Rs. 655. A significant point to note is that since the growth of national income during 1976-77 was only 1.6 per cent which was lower than the population growth of about 2 per cent, there was actually a fall of about 0.4 per cent in per capita income during 1976-77 as compared with the preceding year.

1.7 The overall saving rate of the economy during 1976-77 touched the highest level of 15.9 per cent. This was mainly due to the substantial increase in the earnings of the household sector resulting mainly from large private remittances from abroad. The savings of the public sector non departmental enterprises also went up to Rs. 459 crores from Rs. 282 crores in the previous year. However, savings of the private corporate sector fell steeply in 1976-77 to Rs. 116 crores from Rs. 314 crores in 1975-76.

1.8 While rate of savings was quite high, this was not accompanied by a spurt in the rate of investment which declined to 13.9 per cent in 1976-77 from the previous year's level of 14.4 per cent. This fall may be attributed to the low performance of the corporate sector. The public sector actually emerged as the main contributing factor in the net capital formation accounting for more than half of the total capital formation during 1976-77.

1.9 Though the share of private consumption expenditure in national income fell in 1976-77, the pattern of consumption expenditure has remained steady. Food items accounted for a major share of the total expenditure. The nation in 1976-77 has spent Rs. 34,757 crores on food, beverages and tobacco; Rs. 4,305 crores on clothing and footwear; Rs. 2,101 crores on fuel and power; Rs. 2,343 crores on gross rent, Rs. 2,081 crores on furniture, furnishings and household equipment and Rs. 9,524 crores on miscellaneous other items.

Food and Agricultural Situation

1.10 Thanks mainly to the favourable monsoons, foodgrains production in the current year is expected to touch a level of 121 million tonnes, an increase of ten million tonnes over last year's output. Commercial crop production is also expected to be better than in 1976-77. The output of cotton and oil seeds and sugarcane in terms of gur has been higher than last year. However, in the case of jute and mesta the output has been lower.

1.11 The prospects for rabi are expected to be bright. The production of rabi rice, wheat, gram as well as rapeseed and mustard may exceed the last year's level. Summer rice production is expected to be good in the southern states of Andhra Pradesh, Karnataka and Tamil Nadu as the reservoirs which provide irrigation during the season are full to capacity. The same is true about summer groundnut also.

1.12 According to the latest Economic Survey the improved agricultural performance has been to a large part also due to the increased use of inputs such as water, fertilisers, pesticides and high yielding variety seeds. Irrigation potential—major, medium and minor—added during the year 1977-78 would amount to 2.2

million hectares. The amount of fertiliser used is expected to go up to 4.2 million tonnes, an increase of 26 percent over the previous year. An additional two million hectares has been covered with high yielding variety seeds.

1.13 The Economic Survey has highlighted the importance of intensive cultivation to augment productivity. This would involve substantial outlays requiring adequate provision of credit. It has been estimated that by the end of 1978-79, the annual short term production credit needed by agriculture would be around Rs. 3,000 crores of which co-operative banks and commercial banks are expected to provide Rs.1,700 crores. During 1976-77, cooperatives provided nearly Rs. 1,100 crores as short term loans, and commercial banks a little over Rs. 200 crores. It has been estimated that the share of small holders (below 5 hectares) in the institutional production credit is about a third of the total provided, although they account for nearly 70 per cent of the total holdings. The survey has stressed the need to increase the share of small farmers to 50 per cent of the total institutional credit within a short period.

1.14 Upto the end of September, 1977, 169 Small Farmer Development Agencies were functioning in the country, and they have identified 131 lakh participants, of whom nearly 55 lakhs were enrolled as members of co-operatives. Co-operative and commercial banks disbursed through these societies short-term loans totalling Rs. 33 crores during April-September 1977. Term loans exceeding Rs. 210 crores have been sanctioned upto September, 1977 and a total amount of Rs. 124 crores has so far been utilised. Nearly 5.29 lakh farmers have benefited under the minor irrigation programme, 2.97 lakh under the milch cattle programme and 1.71 lakh under other programmes.

1.15 On land reforms, the Economic Survey has stated that though almost all States have legislation to declare land owned in excess of a minimum holding as surplus and distribute it among those who have none, the process of acquisition of surplus lands and their distribution has been very tardy. About 5.4 lakh hectares have been distributed to the landless agricultural workers till the end of November, 1977 out of 16.6 lakh hectares declared surplus.

Industrial Production

1.16 The industrial scene presented a picture more of relative stagnation than of sustained progress. The overall rate of growth is estimated to be only 5.2 per cent which is only half of the growth rate witnessed during the previous year. While over a broad spectrum of industries, production changes have been confined within very narrow limits, important sectors such as power generation, coal mining and textiles remained virtually stagnant. During the nine-month period April to December 1977 as compared with the corresponding nine months of 1976, the output of coal (including lignite) fell by 1.6 per cent, pig-iron by 3.7 per cent, cotton yarn by 1.5 per cent and mill cotton cloth by 1.3 per cent. Within the manufacturing sector, growth in the power-intensive industries such as basic metals and heavy chemicals has suffered a set-back. The aluminium industry in particular has been adversely affected, and in its wake, the aluminium cables industry also. The output of heavy chemicals like caustic soda, soda ash and calcium carbide has been practically static, though fertilisers recorded an increase. In most other important industry groups, output remained static. The trends in industrial production in respect of selected industries are set out in Table 1.2.

TABLE 1.2
Index of Industrial Production (Base: 1970=100)

Sl. No.	Industry Group	Weight	1974-75	1975-76	1976-77*	% Change 1975-76 over 1974-75	% Change 1976-77 over 1975-76	April — October*		
								1976-77	1977-78	% change
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Food manufacturing industries except beverage industries	7.74	102.7	106.4	113.0	+3.6	+6.2	96.1	107.1	+11.4
2.	Beverage industries	0.69	189.2	170.9	315.9	-9.7	+84.8	345.9	384.1	+11.0
3.	Tobacco industries	2.21	101.3	97.9	107.0	-3.4	+9.3	103.4	108.9	+ 0.5
4.	Manufacture of textiles	17.43	101.6	105.0	104.0	+3.3	-1.0	104.1	105.1	+ 1.0
5.	Manufacture of footwear, other wearing apparel etc.	0.34	86.9	92.7	91.7	+6.7	-1.1	86.4	73.7	-14.7
6.	Manufacture of wood & cork except furniture	0.49	121.8	105.9	121.6	-13.1	+14.8	118.0	128.0	+8. 5
7.	Manufacture of paper products	2.24	115.8	109.2	111.1	-5.7	+1.7	111.6	113.2	+1. 4

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
8.	Manufacture of leather & fur products except footwear etc.	0.32	108.9	119.5	110.9	+9.7	-7.2	113.0	115.0	+1.8
9.	Manufacture of rubber products	2.22	120.5	119.4	126.9	-0.9	+6.3	122.2	131.1	+7.3
10.	Manufacture of chemicals and chemical products	10.90	125.6	136.8	161.6	+8.9	+18.1	154.6	168.1	+8.7
11.	Manufacture of products of petroleum & coal	1.62	114.1	122.6	125.9	+7.4	+2.7	122.8	132.3	+7.7
12.	Manufacture of non-metallic mineral products except products of petroleum and coal	3.33	119.8	126.0	142.8	+5.1	+13.3	139.0	146.2	+5.2
13.	Basic metal industries	8.84	101.8	121.5	143.4	+19.4	18.0	132.7	134.4	+1.3
14.	Manufacture of metal products except machinery and transport equipment	2.77	126.9	128.5	134.4	+1.3	+4.6	137.2	137.6	+0.3
15.	Manufacture of machinery except electrical machinery	5.55	149.3	150.8	169.6	+1.0	+12.5	153.4	170.4	+11.1
16.	Manufacture of electrical machinery, apparatus, appliances and supplies	5.30	127.3	120.3	133.8	-5.5	+11.2	119.1	139.0	+16.7
17.	Manufacture of transport equipment	7.39	112.2	114.7	139.5	+2.2	+21.6	135.0	134.5	-0.4
18.	Miscellaneous manufacturing industries	1.70	80.2	71.0	82.4	-11.5	+16.1	72.1	107.0	+48.4
	General Index (Crude)	100.0	115.7	122.7	135.4	+6.1	+10.4	129.1	135.8	+5.2

^bProvisional.

Foreign Trade and Exchange Reserves

1.17 The recent improvement in country's foreign trade situation and in remittances from abroad have had a favourable impact on the foreign exchange reserves. While exports of merchandise showed substantial pick-up, the upsurge in imports witnessed in the earlier years levelled off due to a sharp reduction of food and fertiliser imports which formed 37 per cent of the country's imports in 1975-76.

1.18 The trade performance during 1976-77 has revealed that several items like oil cakes, fish and fish products, cotton apparel, iron and steel, engineering goods, chemicals and handicrafts have emerged as items with good export potential. Exports during 1976-77 amounted to Rs. 5142 crores as compared with Rs. 3942 crores in 1975-76. During 1976-77, a trade surplus of Rs. 91 crores was recorded as against a surplus of Rs. 69 crores in the previous year.

1.19 Some noticeable shifts have taken place in the direction and pattern of India's foreign trade during 1976-77. Export to EEC countries showed a sharp increase taking its share in total exports from 21.1 per cent in 1975-76 to 25.9 per cent in 1976-77. The share of U.S.A. declined to 11 per cent in 1976-77 from 12.9 per cent in the previous year mainly due to a reduction in the exports of jute manufactures and sugar. The share

of oil exporting countries declined rather sharply from 14.2 per cent in 1975-76 to 10.6 per cent in 1976-77 because of sharp reduction in Iran's share from 6.7 per cent in 1975-76 to 2.8 per cent in 1976-77. While Japan maintained her share of Indian exports at 10.5 per cent, the share of 'other countries' improved to 26.6 per cent in 1976-77, from 24.1 per cent in the previous year.

1.20 Net foreign aid received by India declined to Rs. 844 crores in 1976-77 from Rs. 1,154 crores in 1975-76. The proportion of imports financed by external assistance which was 22 per cent in 1975-76 fell to 17 per cent in 1976-77. During 1977-78, in view of the anticipated lower level of net foreign aid this proportion is expected to go down further. India's foreign exchange reserves rose by Rs. 1,674 crores during 1976-77. In the ten months of the current financial year ending January, 1978, the reserves showed a further rise of Rs. 1,345 crores.

Employment Situation

1.21 During 1976-77 employment in the organised sector rose by 4.66 lakhs (or 2.3 per cent). This increase was mainly due to the public sector. An interesting feature of the employment growth during 1976-77 has been that it was proportionately larger in the small sector (employment size 10-24 persons). Services

and manufacturing sector which together constitute nearly two thirds of employment recorded the largest increase of 1.27 lakhs and 1.08 lakhs respectively. These were followed by agriculture (0.83 lakh) and transport, storage and communications (0.44 lakh). Overall employment in construction, which is an indicator of industrial activity, was only marginally higher by about 6,000. It is, however, significant to note that this was the net increase of a total increase of 18,000 in the public sector counter-acted by a fall of 12,000 in the private sector.

1.22 According to Employment Exchange Statistics, the number of applicants on the live register stood at 10.8 million at the end of October, 1977 as against 9.6 million at the end of October, 1976, an increase of 12.5 per cent. Vacancies and placements were lower in 1977 than in 1976. The vacancies notified averaged 68 thousand per month in 1977 as against 70 thousand in 1976, while placements effected averaged 39 thousand as against 41 thousand in 1976. On the whole, the employment situation during 1977 remained unsatisfactory.

Trends in Kerala's Economy

General Economic Situation

1.23 The general economic situation in the State during the year under review presented a steady and stable picture. Despite a decline of 6 per cent in rice production during 1976-77 as compared with the previous year's level, it has been possible to ensure a per capita rice availability of 299 grams per day, the highest level achieved in recent years. In terms of the overall food availability the quantity of 523 gms per capita per day has also been the highest so far achieved. This was made possible because of the relative abundance in foodgrain supplies at the national level and liberalisation of the restrictions in the movement of foodgrains within the country. As compared with the previous year there was a 70 per cent increase in the import of rice into Kerala on State account, and the per capita availability during the year registered an increase of 25 per cent.

1.24 On the industrial front, the situation was devoid of any serious bottlenecks. Availability of raw-materials, though not adequate to meet the requirements of certain industries, was comparatively satisfactory. Industrial production was not also cramped by power shortage. These factors contributed to better utilisation of industrial capacity. A significant increase was registered in the working factories in the State.

1.25 Considerable buoyancy was witnessed in the export trade during 1976-77. The total value of exports from Kerala during the year amounted to nearly

Rs. 400 crores, a good chunk of which has been accounted for by marine products, cashew kernels, spices and tea. There was an overall increase of 34 per cent in the value of Kerala's export trade during 1976-77 as compared with the previous year.

1.26 On the price front, there was a decline in the consumer price index ranging from 0.6 per cent to 6.6 per cent in different centres in the State. In 10 out of the 15 selected centres, the fall in index was about 3 per cent as compared with the position a year ago. The average retail prices of commodities showed a mixed trend. While the prices of rice, coconut oil, corriander, tamarind etc. showed a decline, those of dhall, redgram, greengram, onion and chillies showed substantial increases. From the behaviour of retail prices, it is seen that consumer items imported from outside the State experienced a large spurt in prices as compared to items produced within the State.

Price Situation

1.27 Unlike the all-India consumer price, which exhibited an upward trend, consumer prices in Kerala, as revealed by the cost of living index, showed a declining trend in almost all the centres in the State. This could be attributed to the fact that the main consumer item of rice was made available throughout the State at fair prices through the net-work of public distribution system. It may also be noted that the open market price of rice exhibited a fall of over 7 per cent during the year. However, prices of other food articles like pulses, chillies etc. showed substantial increases ranging from 15 per cent in the case of blackgram to 80 per cent in the case of dhall, and 111 per cent in the case of onion. On the whole, the overall price situation was kept under control, though in certain commodity sectors, pressure on prices continues to persist—especially in respect of those items which are imported into the State from other parts of the country.

1.28 As far as the wholesale prices of agricultural commodities are concerned, there was an overall increase of 10.5 per cent in 1977 on top of an increase of 6 per cent in the previous year. The upsurge in wholesale prices could be mainly attributed to the increase in prices of plantation crops (31.4 per cent), fruits and vegetables (30.8 per cent), nonfood crops (26.2 per cent) and oil seeds (15.4 per cent). The wholesale price increases of agricultural commodities benefited the farmers by improving the prices received by them by 14 points as against only 2 points in the previous year. The price-parity index, which indicates the level of prosperity of farmers, consequently improved by 3 points from 99 in the previous year to 102 in 1977.

1.29 The State Civil Supplies Corporation extended its activities considerably during the year. The Corporation has now outlets in all the district headquarters.

The value of commodities handled by the Corporation increased from Rs. 12.44 crores in 1975-76 to Rs. 20.29 crores in 1976-77. It is holding substantial quantities of rice as reserve for distribution during the traditional lean months from June to September.

Income and Employment

1.30 The latest available data on State income pertain to 1975-76 in which year, the State income at current prices has been computed at Rs. 2,134 crores giving a per capita income of Rs. 909, which was lower than the all-India per capita income figure of Rs. 1,008. The rate of growth in 1975-76 as compared with the previous year would work out to 5 per cent. The primary sector consisting of agriculture and allied activities accounted for 50.6 per cent of the State income. The share of the industrial sector was 12 per cent, while the tertiary sector accounted for the remaining 37.4 per cent. A district-wise analysis of per capita income shows that Kottayam with Rs. 1,125 stood at the top while Malappuram with Rs. 695 was at the bottom.

1.31 As far as the employment situation is concerned, the number of work seekers who have registered with the State Employment Exchanges stood at 8.49 lakhs at the end of December 1977. More than 46 per cent of the registrants are those with less than S.S.L.C. qualification. The trends in employment in the public and private sectors show that while there was an increase of 1.87 lakh employment opportunities in the public sector, those in the private sector increased only by 0.59 lakh. The performance of private sector in the matter of promoting employment has not been satisfactory.

1.32 The Economic Census recently conducted by the Bureau of Economics and Statistics, shows that there are about 1.74 lakh establishments in Kerala in the non agricultural sector providing employment to nearly 14.25 lakh persons on a fairly regular basis. The Economic Census has also brought out the interesting finding that there are about 4.5 lakh Keralites working outside the State, of which about 1.5 lakh are working in foreign countries, mainly in the Middle-East. An Overseas Development and Employment Promotion Consultancy Organisation has been set up in the State mainly to promote employment of Keralites in foreign countries, and to raise necessary financial resources from Indians abroad for financing development projects in the State.

Agriculture and Allied Activities

1.33 The year 1976-77 has been relatively a stagnant period with respect to the performance of the crop production sector. The index of agricultural produc-

tion registered a fall of 1.3 points. Rice production of 12.54 lakh tonnes showed a fall of 75 thousand tonnes i.e. about 5.7 per cent as compared to the level of 13.29 lakh tonnes in the previous year. However, commercial crops in general, with the exception of cardamom, tea and coffee, registered an increase. Pepper production went up by 20 per cent and production of rubber by 10.4 per cent.

1.34 A major programme launched during the year has been the development of tree crops with the assistance of the World Bank. The project envisages a total investment of Rs. 62 crores spread over a period of seven years. Addition of 100 more Intensive Paddy Development Units and expansion of area under cashew by 11 thousand hectares have been some of the other important programmes initiated during the year. Fertilizer consumption in the State picked up during the year 1976-77. Plant protection effort was strengthened with the addition of 15 more survey and surveillance units. Distribution of high yielding variety seeds nearly doubled during 1976-77 to 5,000 tonnes. Large quantities of quality planting materials were also distributed. Over 3,000 wells and 50 filter points were dug during the year benefiting 4,200 hectares of land.

1.35 The four S.F.D.A. units in the State benefited 7,000 small farmers, 43,000 marginal farmers and 30 thousand agricultural labourers in the respective districts. During the year 1976-77, these units recorded good progress. They assisted in digging 3,600 wells and installing over 1,600 pumpsets. Soil conservation works were executed protecting 1,100 hectares of eroded land. Over 3,000 milch cattle and 13,000 goats were distributed during the year. In addition, 628 work bullocks were also distributed. Short-term loans amounting to Rs. 3.82 crores and term loans amounting to Rs. 4.12 crores were disbursed.

1.36 The co-operative credit system in the State could make a modest progress only during 1976-77. The average membership for society rose from 1,300 to 1,400. Short-term loans advanced by the societies registered only a modest increase of 11 per cent from Rs. 46.43 crores to Rs. 51.32 crores, while there was hardly any improvement in the disbursement of medium-term loans. Though the loans overdue increased by 23 per cent from Rs. 18.70 crores to Rs. 24.27 crores, the percentage of loans overdue to outstanding declined from 34 to 30 per cent.

1.37 In the field of land reforms, the year recorded significant progress in the matter of disposal of cases. Upto the end of December, 1977, 34.37 lakh cases were filed or initiated for assignment of the rights of landlords and intermediaries to cultivating tenants, of which 33 lakh cases (96 per cent) have already been

disposed of. In the matter of acquisition and disposal of surplus lands estimated at 1.5 lakh ordinary acres, 64,794 acres have been taken over till the end of 1977, i.e. 53 per cent. Of these, 41,063 acres have been distributed to 61,862 persons. The beneficiaries include 22,949 persons belonging to Scheduled Castes and 4,313 persons belonging to Scheduled Tribes. A scheme for giving financial assistance to the assignees of surplus lands of development of plots has already been taken up for implementation. This scheme envisages an outright grant of Rs. 100 per acre for seeds, manure etc. and an investment support for long-term development at Rs. 200 per acre for land levelling etc. to the assignees.

1.38 The various agrarian reforms implemented in Kerala so far cover 20 lakh beneficiaries. These programmes have led to a phenomenal increase in the number of operational units in the farming sector. The number of landless agricultural households during the decade 1960-1970 declined from 31.9 per cent to 10.2 per cent.

1.39 In the field of livestock development, the efforts in upgrading the livestock have been continued by the Departments of Animal Husbandry and Kerala Livestock Development and Milk Marketing Board (KLD & MMB). During 1976-77, the Animal Husbandry Department carried out 4.77 lakh artificial inseminations against 4 lakhs in the previous year. Along with the progress of upgrading stock, other supporting measures like fodder development, provision for cattle feed, improved animal health services were also made available in a large measure to the cattle breeders. The Dairy Development Department with its organisation of Dairy Farm Instructors to the Blocks took up extension-cum-demonstration work in the development of fodder. The Indo-Swiss Project which has now been merged with the K.L.D. and M.M. Board took up development of high yielding fodder varieties in the Idukki District covering an area of 571 hectares.

1.40 The veterinary infrastructure facilities during 1976-77 comprised of 408 veterinary hospitals/dispensaries, 12 mobile veterinary dispensaries, 101 veterinary sub centres and 8 clinical laboratories. During 1976-77 nearly 23 lakh cases of diseases of animals and 3 lakh cases of poultry diseases were treated in the various veterinary institutions in the State.

1.41 The level of milk production in the State reached 5.10 lakh tonnes in 1976-77 and the per capita availability of milk went up to 58 grams in 1976-77 from 51 grams in 1973-74. The structural change in the stock of milch cows by rearing more and more cross-bred stock brought about this improvement. With the formation of the Milk Marketing Board, the marketing activities in milk in the districts of Trivandrum, Quilon,

Alleppey, Ernakulam and Idukki have been brought under the purview of this Board.

1.42 The fishing industry in the State witnessed tardy progress in 1976-77. Total fish production declined markedly from 4.44 lakh tonnes in 1975 to 3.55 lakh tonnes in 1976, registering a fall of 20 per cent. The steep fall in production has led to a drastic reduction in the per capita consumption of fish in the State from 14.5 Kg. in 1975 to 10.7 Kg. in 1976. Despite this bleak picture, the sea food exports witnessed considerable buoyancy, from Rs. 67.62 crores in 1975-76, the export earnings went up to Rs. 90.12 crores in 1976-77. This was made possible largely due to the increase in unit price from Rs. 21.34 per Kg. in 1975-76 to Rs. 28.52 per Kg. in 1976-77.

1.43 The Kerala Fisheries Corporation operated two big trawlers in 1976-77. The Corporation would be importing two more trawlers from Mexico. These vessels were taken delivery in December, 1977. The Corporation's exports in 1976-77 fetched Rs. 2 crores in 1976-77 as compared with only Rs. 0.7 crore in the previous year.

1.44 With a view to streamlining fishermen co-operatives which have been faring badly in the State, a selective policy of rejuvenating good societies and liquidating the bad ones has been put into operation.

1.45 The forestry sector exhibited appreciable improvement in 1976-77. The overall revenue went up from Rs. 21.92 crores in 1975-76 to Rs. 26.18 crores in 1976-77. The increase in the out-turn of forest products contributed to this uptrend. The employment opportunities in this sector also registered improvement. Between 1971 and 1976, the number of forest-based workers is estimated to have gone up from 21,000 to 53,000. Activities like raising of new plantations, improved logging operations, better collection of minor forest produce etc. have expanded the scope of employment opportunities in the forestry sector. Despite these favourable trends, there has been a steady run on forest lands in recent years resulting in the denudation of some of the productive forest areas in the State. A number of factors like diversion of forest land for agriculture, river valley projects, industrial purposes and roads, besides private encroachment, led to the depletion of forest.

1.46 According to an assessment by the Forest Department in 1977, about 3,000 Sq. Km. could be converted into forest plantations. Already over 13,00 Sq. Km. have been planted with different species of trees. Of the balance area of 1,700 Sq. Km. available, about 445 Sq. Km. of moist deciduous forests are being taken up by the Kerala Forest Development Corporation for conversion into eucalyptus plantations over a ten year period ending 1985 at the rate of 4,450 hectares per annum.

1.47 The Kerala Forest Research Institute set up in 1975-76 has started functioning. The Institute has taken up a special study on a family of important trees found in South Asia. The study is aided by the F.A.O. The Institute has also undertaken a survey of plywood industry in Kerala and Karnataka besides doing applied research in problems connected with forestry in Kerala.

Irrigation and Power

1.48 During 1976-77, irrigation facilities were extended to 17,622 hectares of land through major, medium and minor irrigation projects as against 12,900 hectares during 1975-76. Work on the ten continuing major projects has recorded progress. More area was added to the ayacut of four projects—Pamba, Periyar Valley, Chitturpuzha and Kuttiadi which were partially commissioned earlier. The progress of works in respect of Kanjirapuzha and Pazhassi projects would result in partial commissioning of the projects during this year. Preliminary work on two new projects—Idamalayar and Meenachil—were started during the year.

1.49 In regard to flood control work, till the end of 1975-76, 33.4 K.m. of embankment benefiting an area of 9,829 hectares was constructed. During 1976-77, an additional 10.6 Km. of embankment was constructed benefiting 780 hectares of land. In respect of anti-sea erosion works, a coastline of 160 Km. could be protected till the end of 1975-76. During 1976-77, an additional length of 12.5 Km. was brought under protection.

1.50 In the field of power development, both generation and distribution showed improvement during the year. Total power generation in the State rose from 2784 MKWH units in 1975-76 to 3151 MKWH units in 1976-77. The per capita consumption of electrical energy in 1976-77 increased by 2.6 units to 88.4. Supply of electricity could be extended to 10 villages in 1976-77. The total number of villages electrified in the State at the end of 1976-77 was 1212.

1.51 Out of the total quantity of power consumed in the State in 1976-77, about 73 per cent has been for industrial purposes. Extra high tension energy required for industry alone accounted for 54 per cent. A total of 80,167 service connections were provided during 1976-77 as against a target of 40,000. The number of pump sets energised in the State at the end of March 1977 stood at 53,148. Though the targets for service connections have been over-run during 1976-77, the number of pending applications has been increasing rapidly.

1.52 The capital investment of the State Electricity Board at the end of 1976-77 stood at Rs. 308 crores as against Rs. 281 crores at the end of 1975-76. The major projects under implementation in 1976-77 were

Idukki Stage I, Idukki Stage III, Idamalayar, Sabarigiri Augmentation and Silent Valley. The last mentioned project has been lagging behind due both to paucity of funds and objections raised on ecological grounds.

Industry

1.53 Availability of power and raw materials on a satisfactory scale and a generally peaceful atmosphere on the labour front helped in better utilisation of installed industrial capacities in the State. The total number of registered working factories in the State increased by 604 from 6,317 in 1975 to 6,921 in 1976. Cannanore district registered the highest increase of 282 factories. The average daily employment in all the registered working factories increased from 2.64 lakhs at the end of 1975 to 2.81 lakhs at the end of 1976. The cashew industry continued to account for nearly half of the total number of factory workers in the State.

1.54 The total value of production of the nine major Government owned companies in the State during 1976-77 amounted to a little over Rs. 9 crores. In the case of Government majority concerns including the TTP and the TELK, the total value of production in 1976-77 was Rs. 32.8 crores.

1.55 The Kerala State Industrial Development Corporation continued to assist industries spread over the different parts of the State. During 1976-77, applications to the tune of Rs. 171 lakhs were sanctioned by the Corporation, while actual disbursement amounted to Rs. 85 lakhs. The Kerala State Electronics Development Corporation continued to maintain the tempo of its growth and activities. The main items produced by the Corporation during 1976-77 were television receivers, electronic calculators and industrial electronic equipments and systems. The Corporation produced 4059 television sets in 1976-77 against an installed capacity of 5000 sets. The Corporation has received an export order from U. S. S. R. for 700 scientific calculators. Among the twelve subsidiary companies of the Corporation, six companies, viz., Keltron Component Complex Ltd., Keltron Magnetics, Keltron Resistors, Dielecto Magnetics Ltd., Keltron Power Devices and Keltron Rectifiers are at various stages of implementation. The Corporation has provided direct employment to more than 1500 persons and three times that number indirectly. Its paid up capital stood at Rs. 325 lakhs at the end of March 1977. The total turnover of the Corporation including its subsidiaries in 1976-77 was of the order of Rs. 911 lakhs as against Rs. 205 lakhs in the previous year.

1.56 The situation in the traditional industry sector presented a mixed picture. Production of coir which was stagnant during the few years prior to 1976-77 picked up during the year. So also, the export of tobacco products recorded an increase of Rs. 3 crores in value.

and 7,033 tonnes in quantity during 1976-77 over the previous year. In the field of cashew industry, lack of availability of raw cashewnuts continues to hamper the progress of the industry. Though the total number of workers in this industry has been increasing, they are not able to get full employment throughout the year. The State Cashew Development Corporation which manages 34 cashew factories was able to provide, on an average, only 85 days of work during 1976 and 75 days of work during 1977, due to non availability of raw nuts in adequate quantities for processing.

1.57 Production in the handloom sector declined considerably during 1976-77. In the co-operative sector, production declined from 236 lakh metres in 1975-76 to 219 lakh metres in 1976-77. In value terms, the decline was from Rs. 902 lakhs to Rs. 678 lakhs. The increase in yarn price, difficulties in marketing due to stiff competition from mill sector, decline in foreign off take, and failure on the part of the industry to adjust itself to changing patterns, designs and tastes of consumers have been the main reasons for the sluggishness in production.

1.58 In the field of small scale industry, 1,515 new units were registered during 1976-77 as compared with 1,447 units registered in 1975-76. As at the end of March 1977, the total number of registered small scale units stood at 10,946. Inadequacy of capital and raw materials, adverse land-man ratio and poor technology have been the major constraints in the speedy development of small scale sector in Kerala.

1.59 The 'Mini Industrial Estate Programme' launched in 1975 which had aimed at establishing ten thousand new small scale industrial units in the rural areas of the State could not make much headway during the year due to problems in respect of the quality of the projects and inadequacy of working capital. The Industries Development Commissionerate which has been seized of this problem is making effort to overcome these impediments and bottlenecks.

1.60 The Kerala Khadi and Village Industries Board disbursed an amount of Rs. 31 lakhs to societies and institutions engaged in the khadi industry and Rs. 51 lakhs for development of other Village industries during 1976-77. Since its inception in 1957 upto the end of March 1977, the Board extended financial assistance to 1315 cooperative societies and registered institutions for the development of khadi and Village industries in the State. There was an increase in the production of khadi cloth worth Rs. 7.47 lakhs in 1976-77 as compared to 1975-76. The sale value of khadi realised during the year amounted to Rs. 72.38 lakhs.

Mineral Development

1.61 The Department of Mining and Geology continued to carry out detailed investigations for 4/853/MC.

graphite, lime-shell, limestone, magnesite, clays, and brick and tile clays. Mineral surveys to locate possible occurrences were undertaken in Kulathupuzha reserve forest in Nedumangad Taluk of Trivandrum district and in north and south Wynad taluks of Cannanore and Kozhikode districts. The Kerala Mineral Exploration and Development Project established with the assistance of U. N. D. P. in the State started functioning from April, 1977. The objectives of the project include the setting up of a fully equipped modern geo-chemical laboratory in the State.

Transport and Communications

1.62 The transport and communications sector maintained the tempo of progress achieved in the previous years. Total road length increased from 74,820 kms. to nearly 81,600 kms. by the end of March, 1977. During the year 1976-77, the number of motor vehicles per hundred square kilometres of area was 331, and for per lakh of population it was 533. The Kerala State Road Transport Corporation has been catering to about a third of the total passenger traffic in the State.

1.63 Railways also fared well during the year. Following the conversion of Ernakulam-Trivandrum section into broadgauge, the passenger traffic earnings went up by 78 per cent and goods traffic earnings by 68 per cent during the year.

1.64 In regard to sea traffic, Cochin Port continued to occupy a dominant position in the sphere of coastal as well as foreign trade. The volume of traffic handled at Cochin Port was 4.77 million tonnes in 1976-67 as against 4.26 million tonnes in 1975-76, an increase of nearly 12 per cent over the previous year.

1.65 In the sphere of communication facilities, considerable progress took place during the year. A record number of 7,893 net telephone connections were added during 1976-77. The State had only 29 STD routes at the commencement of the year, but during the year 46 new routes were added to the STD network. The average area served by a post office is 10.2 sq. kms. in the State as against the all India average of 27.4 sq. kms. On an average, a population of 5,210 is served by a post office in the State.

Export-Import Trade

1.66 The year witnessed a significant spurt in exports from the ports of Kerala. As against exports worth Rs. 295 crores in 1975-76, the value of exports in 1976-77 amounted to 397 crores. The principal items were marine products (Rs.90 crores), spices (Rs. 43 crores), cashew kernels (Rs. 136 crores), tea (Rs. 61 crores) and coffee (Rs. 34 crores). All these items registered substantial increase over the previous year's performance. Total imports during 1976-77 into Kerala have been estimated at Rs. 384 crores. The main item of imports

consisted of petroleum products whose ratio, in terms of the total quantity of imports, was as much as 75 per cent.

Social Services

1.67 Educational facilities in the State were considerably expanded during the year 1976-77. Total number of high schools increased from 1,666 to 1,680, Upper primary schools from 2,718 to 2,725 and lower primary schools from 6,992 to 7,013. Out of a total number of 11,418 schools in all, as many as 7,057 (62 per cent) are run by private agencies. Total enrolment in schools during 1976-77 was 53.54 lakhs. This has increased to 54.94 lakhs during 1977-78. The increase of enrolment was higher in the secondary stage followed by lower primary stage.

1.68 The teaching profession has been an important avenue of educated employment in the State. During 1976-77, there were as many as 1.64 lakh teachers in schools consisting of 0.36 lakh in secondary schools, 0.52 lakh in upper primary schools and 0.76 lakh in lower primary schools. As compared with the previous year, the total number of teachers showed an increase of 2,308 during 1976-77.

1.69 In the field of general higher education, the number of arts and science colleges stood at 130 during the year under review. As in the case of school education, private agencies play a dominant role in the field of university education in Kerala. Private sector controls 81 per cent of the colleges as compared to 52 per cent in the case of schools. Post graduate facilities exist in 40 colleges. Enrolments in arts and science colleges during 1976-77 numbered 1.76 lakhs as against 1.63 lakhs in the previous year.

1.70 The institutions for importing technical education in the State consist of 6 Engineering Colleges, 18 Polytechnics, 41 Industrial Training Institutes and 21 Junior Technical Schools. The enrolments in Engineering Colleges increased to 4,379 during 1976-77 as against 3,823 in the previous year.

1.71 The State Government appointed a Committee in March 1977 to go into the question of vocationalisation of Higher Secondary Education in the State, and other related matters. The Committee is expected to submit its report soon.

1.72 In the field of tribal welfare, considerable development activities took place during the year. The procedure for selecting the beneficiaries of the various grants was reviewed, and it was decided that instead of selecting individual beneficiaries, entire hamlet would be selected so that all the households in the hamlet would be eligible for the grants. Steps have been taken to strengthen the existing tribal societies and to organise new Girijan Service Cooperative Societies in tribal concentrations. Specified provisions in the budgets of the departments like Agriculture, Animal Husbandry, Public Works, Forest

etc. were made during the year 1977-78 for the development of tribal areas. Two new tribal settlements were taken up at Anachal (Idukki) and Veerpad (Cannanore) for the development of tribal pockets during 1976-77. The construction of 178 new houses for the tribals was started during the year. Scholarship and stipends worth Rs.22.65 lakhs were given to 12,000 students.

1.73 In the field of health, the past tempo of activities could not be kept up during the year under review. The total number of hospital beds could be increased only by 39 from 27,568 in 1975-76 to 27,607 in 1976-77. The number of beds per lakh of population went down from 115 to 113 as a result of the population increase. Trivandrum district had the highest bed-population ratio of 214 while Idukki stood lowest with a ratio of 36. Family welfare schemes registered good progress during the year. The number of vasectomy and P.P.S. operations conducted during the year showed substantial increases.

1.74 Water supply schemes registered good progress during the year. The number of towns having protected water supply increased from 25 in 1975-76 to 28 in 1976-77. Works on the augmentation of Trichur and Palghat water supply schemes were taken up during the year. Under rural water supply programme, 579 schemes were in operation till the end of 1975-76. In the course of 1976-77, 30 more rural water supply schemes were completed, and there were 172 schemes under various stages of implementation.

1.75 Housing programmes received considerable boost during the year. Under the various schemes (Low Income Group, Middle Income Group and Village Housing Project), of the total number of 16,454 houses sanctioned upto the end of March 1977, as many as 14,342 could be completed. Though the 'One Lakh Housing Scheme' as such has been discontinued, it has now been decided that in case a panchayat or any other organisation is willing to take up the construction of houses, the Government would give the necessary timber and tiles free of cost. Though 57,000 houses only could be completed under the 'One Lakh Housing Scheme', it represents a massive development programme ever attempted by a State in the field of housing.

1.76 The State Government has accepted a scheme for the development of satellite towns near rapidly growing urban centres by constructing low cost houses. This would be implemented through the collaborative effort of three agencies, namely, the State Housing Board, the State Construction Corporation and the State Financial Enterprises. During the current year, the scheme would be limited to the construction of 3,000 houses in five towns—Trivandrum, Cochin, Calicut, Kottayam and Trichur. This would involve a capital investment of Rs. 10 crores.

CHAPTER 2

INCOME AND EMPLOYMENT

State Income

The State income of Kerala in 1975-76 is estimated at Rs. 2,134 crores at current prices, giving an increase of 5 per cent over the previous year, which is much lower than the growth rate of 13.6 per cent recorded in 1974-75. But at constant prices there was only a rise of 1.6 per cent per annum both in 1975-76 and 1974-75. Changes in the growth rates at current and constant prices arise because of changes in the price levels of commodities. Also the higher growth rate observed in 1974-75 in terms of current prices is mainly due to the higher rates of increases in the prices of commodities in 1974-75 compared to the price increases in 1975-76.

2.2 A reverse trend is noticed in the rate of growth of national income at current and constant prices. The national income estimated at Rs. 60,851 crores in 1975-76 has registered a rise of only 1.9 per cent

at current prices as against 8.7 per cent at constant prices. It is for the first time since the beginning of the Second Five Year Plan the increase in real national income in an year is more than four and a half times the increase in income at current prices. This has happened due to a sudden fall in the prices of commodities in 1975-76. Estimates of net domestic product under major sectors and per capita income of India and Kerala for 1973-74 and for the first two years of the Fifth Plan along with rates of growth under each sector are presented in Appendix 2.1.

Per capita Income

2.3 The per capita income of Kerala at current prices is Rs. 909 for 1975-76 as against the per capita national income of Rs. 1008. Table 2.1 gives the per capita income figures of all India and Kerala at current and constant prices.

TABLE 2.1

Per Capita Income Differences—India and Kerala (Rs.)

Year	At current Prices			At 1960-61 Prices		
	India	Kerala	Income Difference	India	Kerala	Income Difference
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1960-61	306	259	47	306	259	47
1965-66	425	379	46	311	261	50
1968-69	552	496	56	327	286	41
1973-74	856	800	56	349	301	48
1974-75	1007	884	123	343	299	44
1975-76	1008	909	99	366	297	69

At current prices the per capita State income has recorded a modest increase of 2.7 per cent in 1975-76 over the previous year, while the per capita national income was stagnating at the previous year's level. It may be seen that the difference in the per capita incomes of all India and the State which was Rs. 41 in the beginning of the Fourth Plan had widened to Rs. 69 in 1975-76 after a lapse of seven years.

Sectoral Distribution of Income.

2.4 Both at current and constant prices, the primary sector in the State accounts for a higher share than what it has in the national economy. The relevant figures are furnished in the Table 2.2. The extent of shifts between the shares of the major

sectors in the economy of Kerala and India during these fifteen years is more or less the same, if the effects of price changes in the various sectors are not taken into account. At current prices, however, the share of the secondary sector in the State's economy has considerably come down, compared to its share in the national economy. The share of the tertiary sector in Kerala at current prices, has increased from 28.8 per cent to 37.4 per cent, the increase being about double that occurred in this sector in the national economy. The secondary sector in Kerala accounts for only 12 per cent of the total net domestic product, while for all-India, this sector has a share of 22.4 per cent. This points to the absolute as well as comparative industrial backwardness of the State.

TABLE 2.2
Sector-wise Distribution of Income

Sector	Kerala			India		
	1960-61	1975-76 Current prices	1960-61 prices	1960-61	1975-76 Current prices	1960-61 prices
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Primary sector	56.0	50.6	47.0	52.2	44.4	42.7
2. Secondary sector	15.2	12.0	18.6	19.1	22.4	22.8
3. Tertiary sector	28.8	37.4	34.4	28.7	33.2	34.5
Total Net Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0

Growth Through Plan Periods

2.5 The annual average rates of growth of national income and state income at constant (1960-61) prices during the various plan periods are presented in Table 2.3. The rate of growth of income in Kerala continued to be lower than the all India average rate of growth in all the plan periods except during the three annual plan period 1966-69. While the average annual rate of growth in national income during the 25 years 1951-76 was 3.6 per cent Kerala experienced a rate of growth of only 3 per cent in the State income. The rates of growth of national income and State income during the plan periods were far below the targeted rates. The actual achievements, on the average, was only about half of what was aimed at.

TABLE 2.3

Annual Average (compound) Rates of Growth of Income
(1960-61 Prices) (Per cent)

Period	National Income	Per capita Income	State Income	Per capita Income
(1)	(2)	(3)	(4)	(5)
First Plan (1951-56)	3.6	1.8	3.4	1.2
Second Plan (1956-61)	4.2	2.1	1.8	-0.4
Third Plan (1961-66)	2.7	0.3	2.5	0.1
Annual Plans (1966-69)	3.9	1.7	5.6	3.1
Fourth Plan (1969-74)	3.5	1.3	3.3	1.0
Fifth Plan First Year (1974-75)	0.0	(-) 1.7	1.6	(-) 0.7
Fifth Plan Second Year (1975-76)	8.7	6.7	1.6	(-) 0.7
Average for 25 years (1951-76)	3.6	1.5	3.0	0.7

District Income

2.6 Estimates of net domestic product of the districts in Kerala for the years 1970-71 and 1975-76 at current and 1960-61 prices, with percentage share of each district are presented in Appendix 2.6. Both at current and constant prices, Quilon district occupied the first place and Ernakulam the second place in the matter of percentage share of the State income during 1970-71. At current prices Quilon district retained its position in 1975-76. The per capita income of the districts would provide a rough indicator of the comparative level of development of each district. Table 2.4 provides the per capita income of districts at current and 1960-61 prices during 1970-71 and 1975-76, along with the ranks of districts based on per capita income.

2.7 At current prices, Kottayam District has the highest per capita income in 1970-71 and 1975-76, whereas at 1960-61 prices Ernakulam District ranks first. Both at current and constant prices Malappuram district has the lowest per capita income and this continued to be so during all the years from 1970-71 to 1975-76. The districts of Quilon, Kottayam, Idukki and Ernakulam have per capita incomes higher than the State average during all the years. At constant prices the per capita incomes of the districts of Alleppey, Trichur, Palghat, Malappuram, Kozhikode and Cannanore have decreased between the years 1970-71 and 1975-76.

2.8 Estimates of national income and State income at current prices and constant prices, under major sectors, for the years from 1960-61 onwards are given in the Appendices 2.2 to 2.5

Population

2.9 The population of the State as on first July, 1977 is estimated at 243.1 lakhs consisting of 120.3 lakh males and 122.6 lakh females. The rate of growth of population after reaching the highest value of 2.8 per cent per annum in the sixties has started declining

TABLE 2.4

District-wise Per Capita Income (Rs.)

District (1)	Current Prices				1960-61 Prices			
	1970-71		1975-76		1970-71		1975-76	
	Per capita income (2)	Rank (3)	Per capita income (4)	Rank (5)	Per capita income (6)	Rank (7)	Per capita income (8)	Rank (9)
1. Trivandrum	550	9	926	5	280	6	297	5
2. Quilon	634	3	1081	2	325	3	358	3
3. Alleppey	564	6	859	8	280	6	272	7
4. Kottayam	670	1	1125	1	335	2	369	2
5. Idukki	623	4	1052	3	320	4	347	4
6. Ernakulam	641	2	990	4	359	1	370	1
7. Trichur	550	9	790	10	280	6	265	8
8. Palghat	559	8	896	6	278	7	261	9
9. Malappuram	486	10	695	11	236	9	214	11
10. Kozhikode	616	5	890	7	307	5	294	6
11. Cannanore	560	7	813	9	277	8	254	10
KERALA	584		909		297		297	

in recent years. This has been made possible by the rapid reduction in the birth rate witnessed in the current decade.

2.10 Some of the demographic data relating to marital condition, educational attainments etc. collected in the 1971 Census, which have now become available, bring out the special characteristics of the population of this State.

Marital Status

2.11 Marital status, which has a direct bearing on the reproductive behaviour of the population is an important element of the population composition. Table 2.5 gives the distribution of females according to marital status.

TABLE 2.5

Distribution of Females According to Marital Status in Kerala (1971)

Marital Status	Total number of females	Percentage
Never married	57,37,145	53.32
Married	38,77,996	36.04
Widowed	9,67,235	8.99
Divorced or separated	1,77,142	1.65
Total	1,07,59,518	100.00

The proportion of married among Kerala females is 36 percent in 1971 as against 37 percent in 1961. A lower marriage rate signifies that the effective exposure per woman to the risk of pregnancy during the early reproductive period is less. This may be one of the reasons for the decline in the birth rate which is now being experienced.

Educational Status

2.12 As a demographic characteristic educational status is used as an index of level of sophistication of socio-economic position or in general of the degree of familiarity with culture and the receptivity to new ideas and information on the part of individuals. Table 2.6 gives the distribution of population according to educational status. It is seen that 6.1 percent of the population have acquired qualifications S.S.L.C. and above. Considering the fact that nearly 60 percent of the population is above 15 years of age, it follows that only one-tenth of them are persons having qualifications S. S. L. C. and above. Graduates and above account for only 0.7 per cent of the population. Persons with S. S. L. C. and above form 7.5 per cent among males and 4.7 per cent among females. It is also

TABLE 2.6

Distribution of Population According to Educational Status

Educational level	Total population (lakhs)	Percentage	Males (lakhs)		Females (lakhs)	
			Percentage	Percentage	Percentage	Percentage
1. Illiterate	84.49	39.6	35.33	33.4	49.16	45.7
2. Literate without educational level	39.77	18.6	21.01	19.8	18.76	17.4
3. Primary	54.53	25.5	29.47	27.8	25.05	23.3
4. Middle	21.77	10.2	12.15	11.5	9.62	8.9
5. Matriculation or higher secondary	9.99	4.7	6.12	5.8	3.87	3.6
6. Non technical diploma or certificate not equal to degree	0.88	0.4	0.44	0.4	0.44	0.4
7. Technical diploma or certificate not equal to degree	0.64	0.3	0.36	0.3	0.27	0.2
8. Graduate and above	1.42	0.7	1.00	1.0	0.42	0.5
Total Population	213.47	100.0	105.88	100.0	107.59	100.0

seen that nearly one-sixth of the persons with S. S. L. C. and above have acquired technical qualifications

Age Composition

2.13 A high proportion of the population in the years of childhood means a heavy dependency burden on the economically active members of the population. The distribution of population according to quinquennial age groups is given in Appendix. It is seen that there are about 87 persons under 15 years and over 60 years of age for every 100 persons in the age group 15 to 60 years. In 1961 the corresponding ratio was 94 per 100 persons. For all India the dependency ratio works out to 92 per cent for the 1971 census population. It is evident that the current population of Kerala is in a favourable position with regard to dependency burden. But this ratio can be used as an index only if the unemployment rate is within the permissible limit. However it shows that compared to all India, this State has reached the stage when the demographic factors favour lesser dependency burden on the economically active population.

Labour Force Participation Rates

2.14 The age distribution of the workers and unemployed persons as enumerated in the 1971 Census has been used to work out the labour force participation rates according to age and sex. The labour force is assumed to consist of all workers in the different age groups and the unemployed persons in the age group 15 to 59 years. The labour force participation rates arrived at are given in Table 2.7.

TABLE 2.7

Age Group	Population (percent)	Males (percent)	Females (Percent)
0-14	1.47	1.62	1.31
15-19	29.32	40.02	19.31
20-24	54.05	82.25	26.81
25-29	59.77	95.19	27.23
30-39	61.51	96.94	28.23
40-49	62.05	95.74	27.13
50-59	55.20	89.53	20.03
60 and above	32.80	60.37	7.78
All	30.89	47.56	14.50

2.15 The total labour force participation rate is 30.9 percent which is slightly lower than the rate usually obtained through employment survey. Relating this to the annual incremental population it is seen that the number of persons entering the labour force in one year is nearly 1.42 lakhs. Its implication is that employment opportunities are to be created every year for at least 1.42 lakh persons to keep the present backlog of unemployment, from not swelling further.

Occupational Classification of Non-agricultural Workers

2.16 The occupational classification of workers shows that only slightly more than 4 percent of the workers can be categorised as employers. Nearly three-fourth of the workers are employees. The relevant figures are furnished in Table 2.8.

TABLE 2.8
Occupational Classification of Non-agricultural Workers (1971)

Class	Males %	Females %	Total %
Employers	4.92	0.57	4.10
Employees	71.05	88.18	74.28
Single workers	20.93	8.03	18.50
Family workers	3.10	3.22	3.12
All	100.00	100.00	100.00

It is significant to note that single workers or "own account workers" form nearly a fifth of the total workers in the State.

2.17 The educational attainments of the work-force in the State are presented in Table 2.9.

TABLE 2.9
Educational Levels of Workers—1971

Educational level	Total workers %	Males %	Females %
Illiterate	30.57	22.93	55.60
Below matriculation	60.20	67.65	35.77
Matriculation and higher secondary	5.76	6.43	3.54
Others	3.47	2.99	5.09
All	100.00	100.00	100.00

It is seen that nearly 20 lakhs of the workers in the State are illiterates. Also the illiterate workers together with those who have studied upto 'Primary' account for more than 80 percent of the workers. This State which holds the distinction of having the highest literacy rate for the general population in India has a working force only 20 percent of whom have qualifications above the primary level. It need not be emphasised therefore that adult education programme will have to be given top priority.

Employment Situation

2.18 In the light of the proclaimed policy of removal of unemployment, within a period of ten years, by the Central Government, the problem of unemployment has attained new significance. An assessment of the

effectiveness of the measures taken to achieve the above objective calls for the collection of reliable unemployment statistics periodically. The Bureau of Economics & Statistics has conducted an unemployment survey recently. However its results are not yet ready for publication. A sample survey conducted by the Bureau in 1975 showed that there were 8.19 lakh unemployed persons in this State. Taking into account the increase in the population it is estimated that the number of unemployed persons would have crossed 10 lakhs by now.

2.19 The live register figures of the Employment Exchanges in the State give some idea of the magnitude of the problem of unemployment. As on 31-12-1977, there were 8.49 lakhs of work seekers compared to 7.53 lakhs a year ago, the rate of increase being 12.7 per cent. But the rate of increase was 17.5 percent during the previous year. The sample survey conducted by the Director General of Employment and Training during 1973, showed that only 65.3 per cent of the registrants were actually unemployed. Eventhough this percentage would have undergone a change now reckoning on the basis of this percentage it is seen that more than 5.5

lakhs persons who are chronically unemployed have registered their names in the Employment Exchanges. It may be noted that all the unemployed persons may not register with the Employment Exchanges. Further there are a large number of under employed persons especially in the agricultural sector about whom no reliable information is available.

Educated Unemployed

2.20 Table 2.10 shows the distribution of work seekers according to their levels of education. More than 46 per cent of the registrants are having educational qualifications below S. S. L. C. During the year 1977 about 47,500 such persons have additionally registered against 13,000 during the previous year. Similarly, there is a significant increase in the case of registration of work seekers with qualification S. S. L.C. and above during the year, it being 48,300. This includes 3300 graduates and 700 post-graduates as against 5300 graduates and 800 post-graduates during 1976. It appears that the job opportunities to graduates and post-graduates have widened to some extent compared to the previous year; hence the number of registrants in live register has dwindled in 1977.

TABLE 2.10

Distribution of Work Seekers in Kerala by Education Levels

Period ending	Below S.S.L.C.	Percentage to total work-seekers	S.S.L.C.	Pre-Degree	Graduate	Post Graduate	S.S.L.C. and above	Percentage to total work-seekers	Total work-seekers
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
31-12-1966	70,946	45.14	79,261	2,923	3,581	445	86,210	54.86	1,57,156
31-12-1967	86,852	48.39	83,615	3,558	4,822	631	92,627	51.61	1,79,479
31-12-1968	92,949	45.60	89,487	3,893	6,615	832	1,09,827	54.50	2,01,876
31-12-1969	96,153	40.13	1,24,469	6,275	11,002	1,687	1,43,493	59.87	2,39,586
31-12-1970	1,15,504	39.25	1,51,279	7,469	17,703	1,994	1,78,450	60.75	2,93,754
31-12-1971	1,66,305	45.27	1,67,814	10,168	20,841	2,223	2,01,076	54.73	3,67,381
31-12-1972	1,94,848	42.93	2,18,880	16,457	20,396	3,333	2,59,066	57.07	4,53,914
31-12-1973	2,39,921	45.80	2,26,783	18,965	34,327	4,156	2,83,961	54.20	5,23,882
31-12-1974	2,74,620	46.80	2,52,423	20,075	36,947	3,870	3,13,315	53.20	5,87,935
31-12-1975	3,31,628	47.98	2,81,989	28,329	44,456	4,840	3,59,614	52.02	6,91,242
31-12-1976	3,44,461	45.71	3,15,552	38,176	49,749	5,641	4,09,118	54.29	7,53,579
31-12-1977	3,91,954	46.15	3,51,211	46,830	53,037	6,346	4,57,424	53.85	8,49,578

Professional and Technical Work Seekers

2.21 All the important categories of professional and technical work seekers except Diploma holders in

Engineering and Medical and Veterinary graduates showed an increase during the year 1977. The relevant figures are given in Table 2.11.

TABLE 2.11

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)
31-12-1966	19	417	N.A.	N.A.	N.A.	N.A.
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
31-2-1977	490	1,784	3,585	21,976	78	32

N. A. Not available

2.22 The number of medical graduates decreased from 696 to 490 during this year. Similarly, the number of veterinary graduates declined to 32 from 75, while that of engineering diploma holders came down to 3585 from 4009.

2.23 In this context, it may be pointed out that during the year ending March 1977, 472 vacancies were cancelled for want of qualified candidates compared to 315 during the previous year. Some of the important categories among them are High School Assistants (Mathematics/Sanskrit/Tamil / Urdu/Arabic / Kannada, medium), Staff Nurse, Pharmacists, Refractionists, Radiographers, X-ray Technicians, Anaesthetic Technician, Laboratory Technicians, Psychiatric Technician, Gynaecologists, Lady Health Visitor. Besides a few other vacancies reserved for scheduled caste/scheduled tribe communities were cancelled for want of suitable candidates.

2.24 It may not be correct to say that all the technically and professionally qualified persons registering with the Employment Exchanges are unemployed. The survey by the Director General of Employment and Training mentioned earlier has revealed that only about 62.9 percent of them were actually unemployed, 32.2 percent were employed and 4.9 percent were pursuing higher studies.

Employment Statistics

2.25 The Bureau of Economics and Statistics has collected some data on employment during November-December 1977 as a part of the All India Economic Census of non-agricultural activities. It has been reported that the results of a quick tabulation showed that there were about 1.74 lakh establishments in

Kerala in the non-agricultural sector providing employment to nearly 14.25 lakh persons on a fairly regular basis, 12.85 lakh being hired workers and the remaining 1.40 lakh household members.

Employment in the Organised Sector.

2.26 Table 2.12 gives the details of employment in the organised public and private sectors from 31-12-1966. As on 30-6-1977, there were a total of 9.42 lakh persons employed in the State in these sectors together, whereas a year ago, there were 9.13 lakh persons in such establishments. The growth during a period of ten and a half years was only 35.3 percent or nearly 3.36 percent per annum.

TABLE 2.12

Employment in the Public and Private Sectors in Kerala

Period ending	Public sector	Private sector	Total
(1)	(2)	(3)	(4)
31-12-1966	2,61,321	4,34,562	6,95,883
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	7,48,362
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
30-6-1976	4,28,434	4,84,488	9,12,922
31-12-1976	4,38,183	4,83,610	9,21,793
30-6-1977 (P)	4,48,167	4,94,009	9,42,176

(P) Provisional figures.

2.27 When the employment position in the public and private sector establishments is examined separately it can be seen that from 31-12-1966, there is an increase of 1.87 lakh employment opportunities in the public sector establishments, against only 0.59 lakh of employment opportunities in the private sector. In other words the performance of the organised private sector in relieving the unemployment problem has not been up to the expected level.

Placings Through Employment Exchanges.

2.28 The data on placings through the employment exchanges in Kerala are given in Table 2.13. During 1977 it was decided by the Government that even short vacancies of duration of less than three months should be filled with P. S. C. hands, and if P. S. C. hands are not available such vacancies can be reported to the Employment Exchanges. During the year, on a monthly average 501 employers have utilised the services of the employment exchanges.

TABLE 2.13
Placings Through Employment Exchanges in Kerala

Year	Number of placings	Monthly average number of employers using employment exchanges
(1)	(2)	(3)
1966	16,904	464
1967	15,617	506
1968	15,658	492
1969	17,864	526
1970	17,939	563
1971	16,587	563
1972	14,574	395
1973	13,238	463
1974	19,467	528
1975	23,878	546
1976	22,210	576

Overseas Development and Employment Promotion Consultants Limited, Trivandrum.

2.29 This Company was registered as a fully owned Government Company on 22-10-1977 with an authorised capital of Rs. 1 crore. The amount required for the working of the organisation will be provided by Government according to necessity. The company has been granted registration by the Ministry of Labour, Directorate General of Employment and

4/853/MC.

Training, for carrying on the business of recruitment of skilled and unskilled labour on behalf of foreign employers.

The main objectives of the Company are:—

- (i) To promote employment in foreign countries of skilled, semi-skilled, technical, quasi-technical or educated persons.
- (ii) To promote, establish, undertake and operate on its own or on behalf of the Government joint industrial ventures abroad in collaboration with promoters in such countries thereby increasing the employment potential of Indians in foreign countries.
- (iii) To raise the necessary financial resources from Indians abroad and other financial institutions for projects in India and to promote, undertake, develop, establish and administer industrial, constructional and commercial activities either of its own or in collaboration with and/or financial participation of any Government or person or institution or any corporate body whether in or outside India.
- (iv) To promote and take steps to intensify exports of traditional and non-traditional items, handicrafts, handloom products, coir products, etc.

2.30 The public sector organisations like Engineering Projects India Ltd., B.H.E.L. and Railway Construction Company have agreed to associate with the Overseas Development & Employment Promotion Consultants Ltd., for recruitment for overseas contracts and allied works and allow them to recruit the manpower required for such jobs. Engineering Projects India Ltd.; who has large number of construction works in the Middle East has asked Overseas Development and Employment Promotion Consultants Ltd., to keep ready a list of skilled masons and carpenters for recruitment for jobs abroad

2.31 It is estimated that more than Rs. 300 crores is annually remitted to Kerala by Keralites employed abroad. At present this amount goes to the Nationalised Banks and to some extent in property purchases and is not available to the State Government for executing development schemes. It is therefore proposed to devise means to channelise these remittances into a State Unit Trust or some such scheme, assuring the remitters an attractive return so that the amount could be utilised for development schemes in Kerala.

CHAPTER 3

PRICES AND COST OF LIVING

Price Situation

The price situation in the country during the year 1977 presented a mixed trend. The inflationary tendency which was in evidence during the latter half of 1976 continued unabated till June 1977. This trend was, however, softened during the second half of the year. Taking the year as a whole, the average annual index of wholesale prices in the country rose from 172.4 in 1976 to 185.2 in 1977 recording an increase of 7.4 per cent as against a decline of 1.9 per cent during the previous year (see Table 3.1). However, a point to point comparison of the wholesale price indices for the year shows that the actual price increase has been much less. The price increase was only 2.9 per cent in January 7, 1978, as compared to the position a year ago.

TABLE 3.1

Index Numbers of Wholesale Prices—All India

(Base: 1970-71=100)

Month	Index		Percentage change	
	1976	1977	in 1976 over 1975	in 1977 over 1976
January	166.4	178.4	-1.6	0.8
February	164.9	182.4	-0.9	2.0
March	162.6	182.9	-1.4	0.3
April	166.2	184.1	2.2	0.7
May	169.3	187.4	1.9	1.8
June	171.5	187.8	1.3	0.2
July	177.6	188.7	3.6	0.5
August	178.5	188.1	0.5	-0.3
September	179.5	188.2	0.6	0.1
October	177.7	185.2	-1.0	-1.6
November	176.8	183.9	-0.5	-0.7
December	177.4	184.5	0.3	0.3
Annual average	172.4	185.2	-1.9	7.4

3.2 But one of the disturbing features of the price situation is that the price of 'food articles' increased substantially although the price of 'non food articles' recorded slight decline during the year as compared to a year ago. Among the 'food articles' the highest increase was recorded for pulses (45 per cent) and fruits and vegetables (23.9 per cent) (see Table 3.2). This was mainly due to the fact that the output of pulses has tended to stagnate in the face of rising demand. Similarly, export demand was partly responsible for the pressure on prices in respect of vegetable items like potatoes and onions. But in respect of cereals the price increase was only marginal, thanks to the increased output and better availability of foodgrains during the year.

TABLE 3.2

Index Number of Wholesale Prices

(Base 1970-71=100)

Items	Index week ended 7th January, 1978	Percentage Variation a year ago	Percentage change over 26th March, 1977
<i>I. Primary articles</i>	182.3	5.5	2.5
Food articles	173.6	11.6	5.3
(a) Cereals	162.0	1.9	2.0
(b) Pulses	242.9	45.0	41.2
(c) Fruits & vegetables	168.3	23.9	12.2
(d) Milk & milk products	155.4	4.3	2.8
Non-food articles	172.9	-7.4	-5.6
(a) Fibres	182.0	-8.6	-6.7
(b) Oil seeds	177.4	-2.8	1.0
<i>II. Fuel, Power, light & lubricants</i>	232.4	0.1	0.2
<i>III. Manufactured products</i>	177.2	1.3	0.7
(a) Food products	174.4	-4.8	-5.9
(b) Textiles	175.4	9.1	6.6
(c) Chemical & chemical products	172.1	-0.5	0.5
(d) Basic metals, alloys and metal products	194.9	2.4	2.2
(e) Capital goods	172.5	1.5	2.0
All Commodities	184.0	2.9	1.4

3.3 In addition to the reasons stated, increase in the money supply seems to have contributed its share to the general increase in the wholesale prices in 1977. The increase in money supply during the first eight months of the current year has been in absolute terms a little larger (Rs. 1339 crores) than the expansion during the corresponding period last year (Rs. 1357 crores).

TABLE 3.3

Consumer Price Index Numbers for Industrial Workers—All India

(Base 1960=100)

Months	Index Numbers			Percentage Change	
	1975	1976	1977	in 1976 over 1975	in 1977 over 1976
January	326	298	307	-8.6	+3.0
February	325	290	310	-10.8	+3.8
March	321	286	312	-11.0	+3.9
April	323	289	313	-10.6	+3.8
May	327	290	318	-11.3	+3.8
June	328	291	320	-11.3	+3.1
July	324	297	325	-8.4	+3.7
August	321	298	327	-7.2	+3.7
September	319	302	331	-5.4	+3.6
October	316	304	330	-3.8	+3.3
November	315	306	NA	-2.9	..
December	306	306	NA	..	..

Consumer Prices—All India

3.4 In respect of consumer price index, it is seen that the index showed a more or less steady rise from 307 points in January 1977 to 331 in September 1977 registering an increase of 7.8 per cent. After reaching the peak level in September 1977, the consumer price index has levelled off and it stood at 330 in October 1977. This represents an increase of more than 8 per cent in the indices during the corresponding period of the preceding year. This is in sharp contrast to the welcome decline registered in the previous year (Table 3.3).

3.5 However a peculiar feature of the recent price situation which directly affects the common man is that while the wholesale price index rose by less than 1 per cent (0.8 per cent) between March and December 1977, the consumer price index went up in the same period substantially by 5.8 per cent. This indicates that the marketing margin continues to be high which adversely affects the producer as well as the consumer.

3.6 As against the buoyancy noted in the all India consumer price index for industrial workers, the cost of living index (consumer price index for agricultural and industrial workers) numbers in Kerala witnessed a decline in all the selected centres during the year 1977. However, it is observed that the decline in the consumer price index numbers during the year 1977 was much less than the fall in the index recorded during the previous year (Table 3.4).

TABLE 3.4

Average Annual Index of Consumer Price in Selected Centres in Kerala

(Base 1970=100)

Sl. No.	Centre	Average annual Index			Variation %	
		1975	1976	1977	During 1976 over 1975	During 1977 over 1976
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Trivandrum	185	164	160	-11.1	-2.4
2	Quilon	187	167	163	-10.8	-2.4
3	Punalur	189	165	160	-12.6	-3.0
4	Alleppey	184	164	159	-10.6	-3.0
5	Kottayam	180	158	154	-12.0	-2.5
6	Mundakayam	N.A.	167	156	N.A.	-6.6
7	Munnar	197	175	172	-1.1	-1.7
8	Ernakulam	181	161	158	-10.8	-1.9
9	Chalakydy	176	164	157	-6.6	-4.3
10	Trichur	182	163	158	-10.2	-3.1
11	Palghat	N.A.	163	160	N.A.	-1.8
12	Malappuram	N.A.	162	161	N.A.	-0.6
13	Kozhikode	186	166	163	-10.9	-1.8
14	Meppadi	N.A.	167	165	N.A.	-1.2
15	Cannanore	N.A.	161	157	N.A.	-2.5

Note. Five new centres were added since August 1975 and comparable figures are not available for these centres for the year 1975.

3.7 The decline in the consumer price index during the year under review was of the order of 0.6 per cent

to 6.6 per cent in the different centres. In ten out of the 15 selected centres in the State the fall in index was only less than 3 per cent when compared to the position a year ago. The satisfactory supply position in respect of rice which accounts for a major share of the consumer basket contributed to this softening trend in the consumer price index.

3.8 The monthly consumer price index numbers for different centres in the State are given in Appendix 3.3. It shows a remarkable degree of stability in consumer prices as between various months in all the selected centres.

TABLE 3.5

Statement showing the State Average of Retail Prices of Essential Commodities

Sl. No.	Commodity	Units	Prices (Rs.)		Percentage variation
			31-12-1976	31-12-1977	
(1)	(2)	(3)	(4)	(5)	(6)
1	Rice (open market)	Kg.	2.33	2.21	-7.1
2	Dhall	"	2.92	5.26	+80.1
3	Redgram	"	2.19	2.93	+33.8
4	Greengram	"	2.52	3.46	+37.3
5	Blackgram	"	2.86	3.30	+15.4
6	Coconut oil	"	14.89	13.00	-12.7
7	Corriander	"	10.17	7.94	-21.9
8	Chillies	"	9.11	12.25	+34.5
9	Onion	"	1.14	2.41	+111.4
10	Tamarind	"	3.76	3.47	-7.7
11	Coconut (with husk)		115.95	115.70	-0.1
12	Tapioca	Kg.	0.50	0.49	-2.0
13	Tea (Brooke Bond) (Al Dust)	"	17.15	18.93	+10.4
14	Coffee Powder (Brooke Bond family brand)	"	16.70	18.32	+9.7
15	Milk (Cow's)	Litre	2.32	2.34	+0.9
16	Firewood (local split)	QtL	17.80	19.55	+9.8
17	Mundu (kora)	Each	6.49	7.35	+13.3

Retail Prices of Essential Commodities

3.9 The retail prices of 17 items of essential commodities as at the end of 1976 and 1977 are given in Table 3.5. It appears that consumer items imported from outside the State experienced a larger spurt in prices as compared to items produced within the State.

3.10 In respect of rice, the open market price exhibited a fall of over 7 per cent as compared to the position a year ago. This was possible mainly because of the increased supply of rice through ration shops in the State. As at the end of December 1977 the average price of rice in the open market was Rs. 2.21/Kg. against Rs. 2.32/Kg. at the end of 1976.

3.11 In the case of pulses, a marked increase was observed in the prices during the year under review. Dhall, redgram, greengram and blackgram recorded substantial increase in the retail prices to the tune of 80 per cent, 34 per cent, 38 per cent and 15 per cent respectively. During the same period, the prices of chillies

and onion recorded a rise of 35 per cent and 111 per cent in the retail market. Not so spectacular was the increase in price recorded by some other commodities of daily consumption viz., tea (10.4 per cent), coffee (9.7 per cent), firewood (10 per cent) and kora mundu (15 per cent).

3.12 The commodities which recorded fall in prices during the period are coriander, coconut oil and tamarind. While the prices of coriander fell by 22 per cent, coconut oil and tamarind declined by 13 per cent and 8 per cent respectively. While the prices of tapioca showed a marginal fall of 2 per cent the prices of coconut remained more or less stationary.

3.13 A month-wise statement showing the State average of retail prices of essential commodities is given in Appendix 3.4.

Wholesale Price Index of Agricultural Commodities

3.14 The wholesale price index of agricultural commodities in Kerala (base 1952-53=100) registered an increase of 10.5 per cent during 1977 on top of an increase of 6 per cent during the previous year (Table 3.6). The upsurge in the wholesale price index of agricultural commodities can be mainly attributed to the increase in prices of 'Plantation crops' (31.4 per cent) 'fruits and vegetables' (30.8 per cent), 'non-food crops' (26.2 per cent) and 'oil seeds' (15.4 per cent). The index of 'food-crops' exhibited a rise of only 5.1 per cent. During the same period the wholesale price indices of 'molasses' and 'condiments and spices' moved down by 13 per cent and 2.8 per cent respectively, while the index for 'food grains' remained stationary.

TABLE 3.6

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

Sl. No.	Group	Index			Percentage Variation	
		1975	1976	1977	In 1976 over 1975	In 1977 over 1976
1	Food grains	319	319	319	Nil	Nil
2	Molasses	416	423	368	+1.7	-13.0
3	Condiments & spices	218	318	309	+45.9	-2.8
4	Fruits & vegetables	385	380	497	-1.3	+30.8
5	Food crops	317	332	349	+4.7	+5.1
6	Oil seeds	479	525	606	+9.6	+15.4
7	Plantation crops	247	236	310	-4.5	+31.4
8	Non-food crops	409	438	516	+7.1	+26.2
	All Crops	350	370	410	+6.0	+10.5

*As wholesale trade in foodgrains in the State is insignificant, procurement price of paddy is indicated.

3.15 The month-wise wholesale price index of agricultural commodities in Kerala during the year is given in Appendix 3.5. It shows that the variability between the highest and lowest prices during the course of the year was maximum in respect of 'food crops' (+68.2 per cent) followed by 'fruits and vegetables' (+50.8 per

cent). The lowest seasonal variation in prices was recorded for 'non-food crops' (+21.2 per cent).

3.16 The wholesale price trends of agricultural commodities over a decade is given in Appendix 3.6. It shows that the prices of "all together crops" have recorded an increase of 118 per cent, the price rise ranging from 43 per cent in respect of 'molasses' to 168 per cent in respect of 'fruits and vegetables'.

Parity Index.

3.17 The index number of parity between prices received and prices paid by farmers indicates the level of their prosperity. During the year under review the prices received by farmers went up by 14 points as against a rise of 2 points in the previous year. In respect of prices paid by farmers, the index rose by 2 points as opposed to a decline of 18 points in the previous year. The parity index for the year 1977 works out to 102, marking a rise of 3 points compared to the previous year. Thus the index shows that the farmers were better off during the year under review compared to the previous year.

3.18 However, it may be noted that the parity position would vary with the different commodities. In respect of commodities such as paddy and tapioca parity would have definitely been adverse to the cultivator as their relative prices declined during the year. In respect of commercial crops such as coconut, pepper, ginger, cashew etc. which together constitute more than 50 per cent of the total weight in the prices received index, the parity position would have been definitely advantageous to the cultivator due to the substantial increase in the prices of these commodities.

3.19 The two components of prices paid index, viz. index of domestic expenditure and index of farm cultivation cost, exhibited divergent trends during the year. While the index for domestic expenditure declined by 10 points, the index for farm cultivation cost went up by 19 points. The index number of parity between prices received and prices paid by the farmers for the last one decade are given in Table 3.7

TABLE 3.7

Index Numbers of Parity Between Prices Received and Paid by Farmers—Kerala

Year	Index Number				Parity
	Prices received by farmers	Domestic expenditure	Farm cultivation cost	Prices paid by farmers	
1968	215	199	246	222	97
1969	212	209	259	232	92
1970	250	217	270	242	100
1971	227	218	278	246	95
1972	222	232	296	262	100
1973	308	280	336	307	109
1974	423	368	414	390	95
1975	404	401	454	427	98
1976	406	356	469	409	102
1977	420	346	488	411	102

Food Situation.

3.20 The year 1976-77 has been one of the most comfortable periods in recent times on the food front for the State. In spite of the fall in the production of price and tapioca, the total food availability (including wheat and tapioca) in the State has been higher in 1977 with 523 grams per capita per day (See Table 3.8). Primarily the easy food situation could be attributed to the relative abundance in food grains supplies at the national level and the liberalisation of the restrictions on the movement of food grains within the country. Consequently the import of rice on State account increased by 70 per cent over the previous year (see Table 3.9). The per capita availability of rice registered an increase by 25 per cent over 1976. However the availability of wheat in 1977 declined by

nearly half over previous year. The relative the increase in the supply of rice depressed the demand for wheat. This was seen reflected in the decline of import of wheat by half from 3.89 lakh tonnes in 1976 2.07 lakh tonnes in 1977 on State account. The absorption of wheat from the public distribution system has been steadily declining over the years. In 1975 the monthly off-take of wheat through the public distribution system had been nearly 41,000 tonnes. In 1976 it came down to a little over 18,000 tonnes and in 1977 to a mere 5,400 tonnes (see Table 3.10). The decline in the consumption of wheat in the State on account of the increased availability of rice should cause concern as it is an indication of the sliding back to the consumption habit exclusively of rice.

TABLE 3.8

Per capita Availability of Food in Kerala

Sl. No.	Particulars	1971	1972	1973	1974	1975	Gms./day	
							1976	1977 (Provisional)
1.	Rice from internal production in the State	149	152	147	135	140	137	128
2.	Rice from import on State account	95	97	88	89	60	103	171
3.	Total rice in the State (1+2)	244	249	235	224	200	240	299
4.	Wheat from import on State account	7	10	24	29	60	45	24
5.	Total food grains (4+5)	251	259	259	253	260	285	323
6.	Rice equivalent of tapioca from within the State	199	229	234	228	222	208	200
7.	Total Food (5+6)	450	488	493	481	482	493	523

TABLE 3.9

Imports of Food Grains on State Account
(in '000 tonnes)

Month	1976		1977	
	Rice	Wheat	Rice	Wheat
January	45	44	100	20
February	54	35	100	27
March	54	35	100	20
April	54	35	125	20
May	70	30	125	20
June	75	30	135	20
July	80	30	135	20
August	95	30	143	20
September	95	30	135	10
October	95	30	135	10
November	85	30	135	10
December	100	30	135	10
Total	902	389	1509	207

TABLE 3.10

Distribution of Rice and Wheat Through the Public Distribution System

Month	Rice distributed (in tonnes)		Wheat distributed (in tonnes)	
	1976	1977	1976	1977
January	57412	98702	27700	8340
February	57756	98776	21888	5407
March	61802	123323	21949	5531
April	60432	122017	21288	4981
May	73349	132196	19581	11410
June	74745	128297	17193	4817
July	77826	132139	20411	5144
August	83506	137800	20103	4947
September	86419	105405	15512	3930
October	88742	95682	12849	3554
November	84176	92616	11043	3470
December	98012	95741	10947	3643
Total	904177	1362724	220464	65174
Monthly average	75348	113560	18372	5431

3.21 The network of public distribution system got strengthened and consolidated during the review period. The net work operating through the ration shops is primarily responsible for the distribution of rice, wheat, sugar and kerosene. During 1977, 1.57 lakh families were additionally brought into the system

bringing up the coverage to 40.30 lakh families. (See Table 3.11). The constitution of the Civil Supplies Corporation in 1975 supplemented the existing net work by bringing in more items in the public distribution system.

TABLE 3.11

Public Distribution System for Essential Commodities in Kerala

Sl. No.	Particulars	Unit	1976	1977
1.	No. of ration cards and permits (as on 1st April)			
	(a) Ration cards for families (in lakhs)	No.	38.73	40.30
	(b) Ration permits for institution	"	6829	5720
2.	No. of F.C.I. sub depots	"	24	22
3.	No. of wholesale shops			
	(a) Co-operatives	"	44	50
	(b) Others	"	214	212
	(c) Total wholesale shops	"	258	262
4.	No. of retail shops			
	(a) Co-operatives	"	2856	2902
	(b) Others	"	8713	8877
	(c) Total	"	11569	11779
5.	Quantity of coarse clothes (allotted)	Std. bales	14499*	8996
6.	Wheat products distributed	M.T.	30000	N.A.
7.	Sugar	"	85592	90747
8.	Kerosene	"	112025	115562

*In thousand squaremetres

Note: N.A.—Not available, since not distributed through ration shops. Quantity distributed by Kerala State Civil Supplies Corporation is not included.

Kerala State Civil Supplies Corporation

3.22 The Kerala State Civil Supplies Corporation extended its activities to new consumer articles and spread its coverage to a larger number of the population. New activities undertaken by the corporation include distribution of uniform clothing and stationery items like paper and note books to students (See Table 3.12). It is holding substantial quantities of rice as reserve for distribution during the traditional lean months of June to September. The Corporation has now outlets in all the district headquarters and in addition one outlet at Sherthallai. It also contemplates to build new outlets further down to taluk headquarters. The Corporation registered significant improvements in its operations. The value of commodities handled by the Corporation increased from Rs. 12.44 crores in 1975-76 to Rs. 20.29 crores in 1976-77.

TABLE 3.12

Essential Commodities Distributed by Kerala State Civil Supplied Corporation

Sl. No.	Items	1975-76		1976-77	
		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)	(6)
1	Wheat	20702	299.17	47.7	0.6
2	Wheat products:				
	Produced	34062	110.79	892.4	521.3
	Purchased	5340		28724.4	
3	Rice outside State	20155	465.76	..	..
4	Rice within the State	11970	287.36	49576.9	1142.1

(2)	(2)	(3)	(4)	(5)	(6)
5	Pulses	2494	48.59	1480.4	27.7
6	Coconut oil	148	12.44	517.8	45.0
7	Chillies	15	1.16	15.3	1.2
8	Soaps	..	4.14	..	0.8
9	Sugar	8	0.35	454.4	22.2
10	Tapioca	..	..	..	..
11	Paper for note books	1199	36.0	5772.6	41.2
12	Petrol lubricants	..	..	..	..
13	Baby milk food	..	0.07	3.5	0.7
14	Uniform cloth to students (000' metres)	3038.39	144.9	..	..
15	Motor spirits, diesel and lubricants	..	*14.37	..	68.8

*Value of petrol lubricants only.

Procurement of paddy

3.23 There was a reduction of over 40 per cent over the previous year in the paddy procured during 1977 in the State. As a sequel to the substantial drop in the farm prices of paddy it is natural only to expect an increase in the quantum of procurement. But in fact the proportion of paddy procured to the quantity available for consumption from internal production declined from 3.20 to 2.09 per cent during this period. (See Table 3.13). This could partly be explained by the substantial difference in the levy price offered and the depressed prices still prevailing in the open market. Open market prices have been almost 60-75 per cent higher than the levy price offered. Hence the farmers did not show much enthusiasm in supporting the procurement effort under the levy system.

TABLE 3.13

Procurement of Paddy

Month	Quantity in tonnes	
	1975-76	1976-77
July	108	269
August	52	430
September	3075	265
October	13802	5012
November	8556	5454
December	3797	2101
January	2180	3454
February	5566	4632
March	13593	7282
April	5190	4588
May	2067	1416
June	1272	436
Total	59196	35946

Proportion of paddy procured to total available for consumption from internal production in per cent

3.20	2.09
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CHAPTER 4
AGRICULTURE

Crop Production

The year 1976-77 has been a relatively stagnant period with respect to the performance of the crop production sector though the State has been on the threshold of launching a massive effort in the development of tree crops through the World Bank assisted Kerala Agricultural Development Project. The index number of agricultural production declined by 1.3 points to 152.4 in 1975-76 which was only marginally better than what the State had achieved by the end of the Fourth Five Year Plan (Table 4.1). While the production of food crops declined by 3.7 points, the non-food sector performed better with an increase of 2.3 points. The relatively stagnant performance of the

crop production sector has been largely due to decline in cereal production by 5.7 points. It is primarily accounted for by the fall in rice production resulting from the failure of the South West Monsoon during the critical months of May and June of 1976. Though the performance of the plantation crops had been impressive with an increase of 12.3 points over the previous year, it could not make much impact in improving crop production in the State. In fact the performance of rubber production is the only silver lining in the crop production sector in 1976-77. Largely due to the increase in productivity of plantation crops by 7.5 points the fall in the productivity of crops could be contained to 0.3 points. The index number of area increased by 0.7 points over the previous year.

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

(Base year—Average of 1959-60 to 1961-1962)

Crops	Area			Production			Productivity		
	Average of 5 years 1969-70 to 1973-74	1975-76	1976-77*	Average of 5 years 1969-70 to 1973-74	1975-76	1976-77*	Average of 5 years 1969-70 to 1973-74	1975-76	1976-77*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All crops (A+B)	128.3	142.0	141.3	152.1	153.7	152.4	118.6	108.2	107.9
A. Food crops (1+2)	121.4	123.4	121.5	161.9	164.3	160.6	133.4	133.1	132.2
1. Food grains (a+b)	112.5	112.4	109.1	124.8	127.6	121.3	110.9	113.5	111.2
(a) Cereals	113.9	114.5	111.4	125.3	127.9	122.2	110.0	111.7	109.7
(b) Pulses	88.6	85.6	84.8	76.1	85.6	81.0	85.9	100.0	95.6
2. Non food grains	135.0	139.6	140.3	196.2	198.3	196.9	145.3	142.0	140.3
B. Non food crops (i+ii+iii)	140.9	144.3	144.4	126.9	137.8	140.1	97.2	95.5	97.0
(i) Oil seeds	143.2	139.4	139.6	119.0	106.7	106.7	83.1	76.5	76.6
(ii) Plantation crops	144.1	159.6	159.8	224.7	290.5	302.8	155.9	182.0	189.5
(iii) Other commercial crops	90.4	92.8	92.6	97.9	101.2	102.5	108.1	109.1	110.7

* Based on provisional estimates

Cereals: Rice, Jowar, Ragi

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

Oil seeds: Ground nut, Sesamum & Coconut

Plantation crops: Tea, Coffee, Rubber

Other commercial crops: Lemongrass, Cotton and Tobacco.

4.2 The trends in the performance of the crop production deserve serious concern as certain disquieting features are emerging in recent years. Though the production level in 1976-77 has been slightly higher than what the State had achieved during the Fourth Five Year Plan period this level could be maintained largely through increase in area. The index number

of area moved up from 128.3 in 1973-74 to 141.3 in 1976-77. On the other hand during the same period the index number of productivity declined drastically from 118.6 to 107.9. This trend is a reflection of certain other attendant developments in the farm sector. Fertilizer consumption in the State has not improved from the level attained in 1973-74 when it had reached nearly

78000 tonnes. In 1976-77 however fertilizer consumption level reached only 69,400 tonnes. Similarly high yielding varieties of rice covered only 2.64 lakh hectares in 1976-77. By 1973-74 the coverage had already reached 2.48 lakh hectares. The disbursal of short term credit had attained Rs. 51.32 crores in 1976-77 against Rs. 39.72 crores in 1973-74.

Farm Prices of Commodities

4.3 Farm prices of various agricultural commodities did not show uniform behaviour during 1977. In general the prices of food grains and substitutes continued to drop, a trend which set in by the middle

of 1976. The annual average price per quintal of paddy declined from Rs. 258 in 1976 to Rs. 139 in 1977. (see Table 4.2). Tapioca prices also fell from Rs. 39 per quintal in 1976 to Rs. 32 in 1977. The decline in the price of tapioca however did not follow closely that of paddy; but only after a time lag. For instance though the paddy prices fell in 1975 the tapioca prices continued to rule high. In fact tapioca prices did not fall until the price of paddy fell to such a level that rice could be substituted for tapioca in monetary equivalent terms. By the end of 1976 the fall in the price of paddy virtually stopped; but the decline in the price of tapioca continued all through 1977.

TABLE 4.2

Farm Prices of Commodities

Commodity/Months	Paddy per quintal		Tapioca per quintal		Coconut per '000 nos.		Pepper per quintal		Ginger per quintal		Rubber per quintal	
	1976	1977*	1976	1977*	1976	1977*	1976	1977*	1976	1977*	1976	1977*
January	170	135	41	35	722	1046	1071	1531	..	1056	696	606
February	166	130	41	34	712	1005	1071	1523	640	1123	677	616
March	168	139	41	35	715	915	1186	1619	742	1479	656	600
April	165	145	41	35	745	826	1264	1658	962	1525	655	609
May	155	146	40	36	695	901	1288	1665	1036	1538	592	623
June	166	147	39	33	680	844	1422	1687	1449	1497	585	612
July	174	147	39	32	734	859	1499	1695	1490	1503	629	630
August	164	146	38	32	739	870	1466	1613	1500	1476	600	656
September	149	136	37	31	879	938	1488	1630	1623	1478	566	638
October	139	130	36	29	974	974	1544	1564	1625	1396	536	650
November	140	133	35	28	1068	1084	1570	1591	1279	1161	595	628
December	145	135	36	29	1093	1114	1396	1586	971	1027	573	..
Average	158	139	39	33	813	948	1355	1614	1211	1354	664	624

Note: Prices rounded to the nearest rupee.

* 1977 figures are provisional.

4.4 The prices of the non-food crops in general on the other hand showed improvement during 1977. The annual average price of coconut per thousand rose from Rs. 813 in 1976 to Rs. 948 in 1977. Throughout 1977 the monthly prices were higher than the corresponding monthly prices in 1976. The price of pepper also registered substantial improvement. It rose from Rs. 1355 per quintal in 1976 to Rs. 1614 in 1977. Pepper prices reached in all time high in July 1977 with the monthly average price of Rs. 1695 per quintal. There was also some improvement in the price of ginger. The annual average of Rs. 1211 per quintal of dry ginger in 1976 rose to Rs. 1354 in 1977. The price of rubber not only did not show any improvement during 1977 but declined marginally over the 1976 prices.

Prices of Farm Inputs

4.5 The prices of farm inputs particularly those of fertilizers were brought down during 1976-77. Two years after the abnormal hike in the price of fertilizers

following the oil crisis, the nitrogen prices were brought down in November 1975 from Rs. 2,000 to Rs. 1,850 per tonne of urea. In April 1976 the price of urea was further brought down to Rs. 1,750 per tonne and again in October 1976 to Rs. 1,650. Similarly the price of superphosphate was first brought down to Rs. 900 per tonne and later to Rs. 795 in the subsequent revision. The price of potash was drastically cut from Rs. 930 in 1975 to Rs. 525 in April 1976. Indications are that the fertilizer prices might be brought down still further partly to compensate for the declining trend in the price of farm commodities.

Climate

4.6 Rainfall is the single most important climate factor affecting crop production in the State as other factors, temperature, humidity etc. though important vary between the different seasons of the year within a narrow range. The annual rainfall received during 1976 which in turn influenced the crop production of 1976-77 has been considerably lower than the normal. Against the annual normal rainfall of 302 cm. the

State received only 204 cm. a reduction of nearly one third (see Table 4.3). More critical to crop production has been the abnormally low rainfall received during the South West Monsoon months of May and June. Against the normal monthly rainfall of 24.5 cm. in May, the actual receipt has been only 8.1 cm. Much less has been the monthly rainfall for June. Against 67.3 cm, of normal rainfall only 19.2 cm, of rainfall was received. The significant reduction in rainfall during the months of May and June had affected adversely the production of virippu crop. In many areas where the crop is generally dry sown was subjected to severe moisture stress though the sowings had come up well on account of the plentiful rainfall received in April. In areas where generally the crop is transplanted the operation could not take place for want of adequate water to get the fields puddled. The poor rainfall would have had adverse impact on the production of upland crops also on account of the extended summer period from four to six months. The rainfall during the North East Monsoon has been relatively better but the rains withdrew suddenly in late November with very little precipitation in December. The adverse impact of rainfall is seen reflected in the low level of production in the farm sector in the State during 1976-77.

TABLE 4.3
Average Monthly Rain-fall in Kerala

Month	(in millimetres)		
	Normal	1976	1977
January	18.5	N*	0.7
February	19.3	0.8	19.6
March	46.4	19.8	35.3
April	115.6	126.5	107.2
May	245.0	80.8	345.2

TABLE 4.4
Land-use Pattern in Kerala

Sl.No.	Classification of land	(Area in hectares)				
		1975-76 Actual	Percent	1976-77* Actual	Percent Actual change over the previous year (1975-76)	
1.	Total geographical area	3885497	100.00	3885497	100.00	Nil
2.	Forest	1081509	27.83	1081509	27.83	Nil
3.	Land put to non-agricultural uses	259230	6.67	260388	6.70	+1158
4.	Barren and uncultivable land	78494	2.02	78837	2.03	+343
5.	Permanent pastures and other grazing land	19915	0.51	16095	0.42	-3820
6.	Land under miscellaneous crops not included ¹ in net area sown	84250	2.17	72668	1.88	-11582
7.	Cultivable waste	113414	2.92	115726	2.98	+2312
8.	Fallow other than current fallow	22954	0.59	22264	0.57	-690
9.	Current fallow	36559	0.94	37409	0.96	+850
10.	Net area sown	2189172	56.35	2200601	56.63	+11429
11.	Area sown more than once	792107	20.38	765794	19.71	-26313
12.	Total cropped area	2981279	76.73	2966395	76.34	-14884

* Figures are provisional based on the quick estimates framed from Timely Reporting Survey of 1976-77.

(in millimetres)

Month	Normal	1976	1977
June	672.8	191.5	602.8
July	868.4	607.3	NR
August	422.6	337.9	NR
September	242.0	111.1	NR
October	306.9	228.3	NR
November	190.9	310.1	NR
December	51.2	31.0	NR
Total	3017.6	2045.1	NR

*Negligible
NR. Not reported

Land Use.

4.7 There has been very little change over the previous year in the pattern in the land use in the State. Already the State has attained extremely high proportion in subjecting land for productive uses. The net sown area together with forests has reached nearly 84.5 per cent of the geographical area. The pressure on land is so high that the land resources are put to severe stress as even submarginal lands are being encroached upon for productive use. Consequently land use categories such as barren and uncultivable land, permanent pastures, land under miscellaneous trees have further declined. There has been an addition of over 1100 hectares to the net sown area (See Table 4.4). However, the area sown more than once declined to the extent of about 9,500 hectares. Partly this could be attributed to the low rainfall received during the South West Monsoon period. The total cropped area declined marginally by seven thousand hectares. Increasing urbanisation and expanding communication facilities are placing their demand on land at a faster rate. Hence the land put to non-agricultural uses further increased by over 1100 hectares.

Area, Production and Yield of Crops.

4.8 Distribution of area under crops showed only marginal changes in 1976-77 over the previous year. The most significant change has been the decline in the area under rice by about 22,000 hectares (See Table 4.5). Area under cashew increased significantly while coconut and pepper registered only marginal additions in area. Among the plantation crops, area under tea, coffee and cardamom declined while that of rubber registered some increase.

TABLE 4.5
Area under Principal Crops in Kerala (in '000 hectares)

	1975-76	1976-77*	Change over the previous year	
			Actual	Percentage
1 Rice	876.0	854.4	-21.6	-2.5
2 Sugarcane	7.6	7.6	..	..
3 Banana and other Plantain	52.3	52.3	..	..
4 Arecanut	76.6	76.6	..	..
5 Cashewnut	109.1	114.8	+5.7	+5.2
6 Coconut	693.0	694.6	+1.6	+0.2
7 Tapioca	326.9	327.8	+0.9	+0.3
8 Tea	37.7	36.2	-1.5	-4.0
9 Coffee	41.8	40.5	-1.3	-3.0
10 Rubber	206.7	209.7	+3.0	+1.4
11 Ginger	11.7	12.0	+0.3	+2.6
12 Cardamom	54.0	51.7	-2.3	-4.3
13 Pepper	108.3	110.6	+2.3	+2.1

*Provisional estimates

4.9 Production in several crops declined during this year. This was notable in the case of rice and tapioca. Production of rice declined by about 75,000 tonnes and that of tapioca by about 1.7 lakh tonnes (See Table 4.6). Cashewnut production registered an increase of about 9,000 tonnes. Among the plantation crops, production declined in tea, coffee and cardamom while rubber registered an increase in output by over 13,000 tonnes.

TABLE 4.6
Production of Major Crops in Kerala

Crops	Unit	Production		Change over the previous year	
		1975-76	1976-77	Actual	Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1. Rice	'000 Tonnes	1329.4	1254.0	-75.4	-5.7
2. Coconut	Million nuts	3439.0	3443.0	+4.0	+0.1
3. Tapioca	'000 Tonnes	5390.2	5223.8	-166.4	-3.1
4. Arecanut	Million nuts	11387.0	11373.0	-14.0	-0.1
5. Pepper	'000 Tonnes	25.6	30.6	+5.0	+20.0
6. Tea	"	45.8	41.7	-4.2	-9.2
7. Banana and other Plantains	"	39.5	39.5	..	..

	(1)	(2)	(3)	(4)	(5)	(6)
8. Cashew nut '000 Tonnes			119.9	128.8	+8.9	+7.4
9. Rubber			126.3	139.4	+13.1	+10.4
10. Coffee			17.5	14.4	-3.1	-17.7
11. Ginger			28.8	27.7	-1.1	-3.8
12. Cardamom Tonnes			2050.0	1420.0	-630.0	-30.0

*Provisional estimates.

4.10 In general the yield of various crops declined during the reference period. Among these crops rice and tapioca stand out significantly. The declines in yield of rice and tapioca were 49 Kg. and 553 kg. per hectare respectively (See Table 4.7). The yield per hectare of tea, coffee and cardamom also declined while that of rubber registered an increase by about 54 kg. per hectare.

TABLE 4.7
Average Yield per Hectare of Principal Crops in Kerala

Sl. No.	Crops	Unit per hectare	Average yield per hectare		Change over the previous year	
			1975-76	1976-77	Actual	per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Rice	Kg.	1517	1468	-49	-3.2
2	Coconut	Nuts	4962	4957	-5	-0.1
3	Arecanut	Nuts	14865	14847	-18	-0.1
4	Tapioca	Kg.	16488	15935	-553	-3.3
5	Pepper	"	236	276	+40	+17.0
6	Tea	"	1214	1149	-65	-5.4
7	Coffee	"	418	355	-63	-15.1
8	Rubber	"	611	665	+54	+8.8
9	Banana & other plantains	"	7556	7556	..	..
10	Cashewnut	"	1098	1122	+24	+2.2
11	Ginger	"	2461	2308	-153	-6.2
12	Cardamom	"	38	27	-11	-28.9

* Figures are provisional

Rice Production.

4.11 Rice production in the State registered a significant decline of nearly 6 per cent during 1976-77. The reduction in production could be attributed largely to the poor rainfall conditions prevailed during the most critical periods of the crop growth in the virippu season. The extremely low rainfall received during the month of May had a telling effect on the production of virippu rice crop. Though the impact of poor rainfall on area has been insignificant as the April rainfall was above normal; but the production declined by about 11.5 per cent largely due to the drought set in during the critical vegetative phase of crop growth. The yield per hectare of virippu crop consequently declined by about 9 per cent setting a break to the slow but increasing trend in yield of virippu crop over the years. There has been only marginal reduction in the production of mundakan

and punja crops (See Table 4.8). The inter seasonal distribution of area under rice during 1976-77 remained more or less at the same level of the previous year. Proportionately the area under virippu continued to decline while the proportionate area under punja

increased further. The yield of mundakan crop registered significant increase by 2 per cent. Marginally the yield of summer crop declined, while that of virippu registered a substantial fall of 9 per cent in yield per hectare.

TABLE 4.8
Area, Production and Yield of Rice in Kerala

Season	Area (in '000 hectares)		Production (in '000 tonnes)		Change in production over the previous year (Percent)	Yield/Hectare (in Kg.)		Change in yield over the previous year (Percent)
	1975-76	1976-77*	1975-76	1976-77*		1975-76	1976-77*	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Virippu (Autumn)	375.0 (42.8)	363.8 (42.6)	550.5 (41.4)	487.7 (38.9)	-11.5	1468	1340	-8.8
Mundakan (Winter)	396.4 (45.2)	381.7 (44.7)	598.0 (45.0)	587.7 (46.8)	-1.7	1508	1539	+2.0
Punja (Summer)	104.6 (12.0)	108.9 (12.7)	180.9 (13.6)	178.6 (14.3)	-1.1	1729	1709	-1.3
Total	876.0 (100.0)	854.9 (100.0)	1329.4 (100.0)	1254.0 (100.0)	-5.7	1517	1431	-5.7

*Provisional estimates.

Figures in brackets indicate percentages.

High Yielding Varieties of Rice.

4.12 The spread of high yielding varieties (HYVs) of rice is gradually regaining its lost ground after the severe set-back suffered in 1974-75 due to the unprecedented incidence of pests and diseases during the preceding year. With nearly 2.34 lakh hectares (in 1973-74 the area under HYVs was 2.48 lakh hectares) high yielding varieties covered merely 31 per cent of the rice cultivated in the State during 1976-77 (See Table 4.9). The area under HYVs during virippu season has registered further significant increase reaching nearly a third of the crop under them. Similarly there has been improvement in the area under HYV during the punja season with nearly 80 per cent of the crop under them. However, though there has been some gains in the area under HYVs during mundakan season, the rate of spread continued to be low and hardly covered a quarter of the rice area. Contribution of HYVs towards rice production registered modest improvements during the reference period. During 1976-77 nearly 37 per cent of all production in rice could be accounted for by HYVs against nearly 28 per cent in 1975-76. But for the drought condition prevailed during May-June in the virippu season of 1976 these varieties would have shown a better performance. This conclusion is partly supported by the yields per hectare registered during 1976 and 1977 seasons. The average yield index of HYVs against the traditional varieties for virippu season declined from 138.4 of 131.9. On the other hand, during the mundakan season the index rose from 106.7 to 124.1.

In general the yield index for HYVs increased from 128.8 in 1975-76 to 131.4 in 1976-77.

TABLE 4.9
High Yielding Varieties of Rice

Details/Seasons	Quantity		Proportion of HYVs to total rice (Per cent)	
	1975-76	1976-77*	1975-76	1976-77*
<i>Area (Hectares)</i>				
Virippu (Autumn)	98531	115764	24.8	31.8
Mundakan (Winter)	62173	74803	16.2	19.6
Punja (Summer)	69397	73407	66.7	67.4
Total	230101	263974	26.0	30.9
<i>Production (Tonnes)</i>				
Virippu	177541	185784	30.4	38.1
Mundakan	99052	136488	16.8	23.2
Punja	141480	141703	74.1	79.3
Total	418073	463975	27.6	37.0
<i>Average yield/hectares (Kg.)</i>				
Virippu	1802	1605	138.4	131.9
Mundakan	1593	1825	106.7	124.1
Punja	2039	1985	201.3	213.9
Total	1817	1758	128.8	131.4

*Provisional

Development Programmes.

4.13 Addition of more Intensive Paddy Development Units, launching of the World Bank assisted Kerala Agricultural Development Project and expansion of area under cashew were some of the more important programmes initiated by the Department of Agriculture during 1976-77. Fertilizer consumption in the State picked up during this period. The consumption of total fertilizers increased by nearly seven thousand tonnes (nutrient value) (See Table 4.10). The use of all the three kinds of fertilizers increased during this period despite the relatively low prices prevailed for many farm commodities. Nitrogen consumption increased by 1600 tonnes, phosphorus by 1400 tonnes and potash by 3400 tonnes. Plant protection effort was strengthened with the addition of 15 more survey and surveillance units during 1976-77. The net work of survey and surveillance for the control of pests and diseases is increasingly proving effective, as could be seen from the decline of 1.5 lakh hectares in area covered by plant protection treatment. Distribution of high yielding varieties of seeds more than doubled during the period to over 5000 tonnes. Large quantities of quality planting materials were distributed. There has been a marginal decline over the previous year in the production of coconut seedling for distribution by about 35,000 seedlings. Large quantities (over 9.6 lakh) of pepper cuttings were distributed.

TABLE 4.10

Selected Indicators of Agricultural Development

Programme	Unit	1975-76	1976-77
(1)	(2)	(3)	(4)
1. Fertiliser consumption	Tonnes	62671	69406
Nitrogen	"	31654	33553
Phosphorus	"	14374	15696
Potash	"	16643	20157
2. Plant protection	"	1.23	0.86
Seeds treated Liquid fungicides (in terms of technical grade)	Litres	15.00	1814
Liquid insecticides (in term of technical grade)	"	123.0	7800
Solid fungicides (")	"	9.94	7.57
Solid insecticides	"	526.50	251.25
Area treated	Lakh Hect.	0.70	1.13
Rodent control operation	"		
3. High yielding seeds			
HYV and other improved seeds distributed from seed farms or Government agencies	Tonnes	2302	5015.7
Coverage of HYV including natural spread	Lakh hect.	2.5	4.5
4. Quality planting materials distributed			
Coconut seedlings	Lakh Nos.	6.20	5.85
Areacanut seedlings	"	..	..
Rooted pepper	"	0.12	9.59
Cashew layers/seedlings	Nos.	21462	12239
Cashew seedlings	Lakh Nos.	22.37	23.39
Banana suckers	"	..	1024

	(1)	(2)	(3)	(4)
5. Farmers training programme				
Farmer trained in specialised courses	Nos.	..	..	79
Special group discussion held	"	..	..	18
Training camps organised	"	..	..	423
6. IPD Programme			289	100
Units organised	"			
Area covered	Hect.	78100		20000
7. Coconut package programme				
Unit organised	Nos.		187	..
Area covered	Hect.	93500		..
Demonstrations organised	Nos.		1510	313
Fertiliser distributed	Tonnes	N	470	1203
		P	335	826
		K	811	2228
Medium term loans distributed (through co-operatives)	(Rs. '000)		5031	156
Filter points established	Nos.		13	52
Filter points connected with pumps	"		13	..
Wells dug	"		1188	3082
Area benefited	Hect.		2599	4198
8. Pilot project for replanting coconut				
Area covered	"		1512	1031
Seedlings distributed	Nos.		31810	23865
9. Pest Survey and Surveillance Programme				
Units established	"		15	15
Area protected	Lakh hect.		7.50	N.A.
10. Short term loans				
Amount distributed	Rs. lakhs		195.49	492
11. Cashew plantation scheme				
Area covered	Ha.		17269	11248
Amount disbursed on subsidy	(Rs. '000)		1132.39	1985.6
12. Free supply of pumpsets to panchayats	Nos.		..	173
13. Trees sprayed for control of coconut leaf disease	Lakh Nos.		..	45.87

N. A.—Not available.

Another significant achievement in this area has been the distribution of over 10 lakh disease-free banana suckers. The number of intensive paddy development units functioning in the State increased by 100 reaching 389 units and covering over 20 thousand hectares additionally. Significant progress has been registered in the implementation of coconut package programme. Fertilizer consumption in the package programme units registered an increase of over 150 per cent. Significant progress has also been registered in bringing more area under irrigation in the coconut package programme units. Over three thousand wells and 50 filter points were dug benefiting 4200 hectares of land. The rejuvenation programme of coconut also made progress. Nearly 46 lakh trees were sprayed under the control of coconut leaf disease programme. Nearly 24 thousand hybrid coconut seedlings were distributed. Over 11 thousand hectares

of land were brought additionally under cashew cultivation. Nearly Rs. 20 lakhs were disbursed as subsidy for this programme. Under the free supply of pump sets to Panchayats 173 units were distributed. Under short term loans over Rs. 430 lakhs were distributed.

Kerala Agricultural Development Project

4.14 The completion of the preliminaries connected with the launching of the World Bank supported Kerala Agricultural Development Project was the most significant achievement accomplished in the agricultural development efforts attempted during 1976-77. This project has far reaching consequences in the develop-

ment of agriculture in the State. Not only that KADP is the largest single development effort ever attempted in the agriculture sector of the State, but it would be the pace setter in evolving new strategies and approaches to the future agricultural development of the State. For the first time the total development of the resources of the farmers is attempted and support extended is tailored to his needs. The project envisages an investment of a little over Rs. 62 crores spread over a period of seven years. The World Bank would be a major participant making available Rs. 27 crores followed by Agricultural Refinance and Development Corporation through the Kerala Cooperative Land Mortgage Bank with nearly Rs. 23 crores. (See Table 4.11)

TABLE 4.11

Summary of Financing of the Kerala Agricultural Development Project

(Rs. in lakhs)

Activities	Amount	Project financing (Agency-wise)					Farmers	Total
		IDA	GOI & GOK	ARDC & Bank	CRMS KSEB KSPC			
Coconut areas	2,289.00	1,026.00	..	1,035.00	..	225.00	2,286.00	
Pump energisation	347.00	153.00	..	162.00	36.00	..	351.00	
Pepper area	851.00	378.00	..	387.00	..	90.00	855.00	
Seed gardens	108.00	54.00	54.00	..	..	..	108.00
Cashew development	162.00	90.00	..	45.00	27.00	..	162.00	
Agricultural research	120.00	54.00	63.00	..	..	..	117.00
Rubber processing (CRMS/IRB)	410.00	252.00	27.00	81.00	54.00	..	414.00	
Extension service & Project coordination	348.00	36.00	315.00	..	..	..	351.00
Contingencies (Physical/Price)	1,555.00	657.00	171.00	585.00	45.00	108.00	1,566.00	
Total	6,190.00	2,700.00	630.00	2,295.00	162.00	423.00	6,210.00	

4.15 The KADP has, as its main objective, the improvement in productivity of major foreign exchange earning tree crops and pepper, with emphasis on improving the economic status of the small holder farmer. The Project comprises the following programmes:—

(i) new planting of high yielding coconut in 5000 ha. in Cannanore, Kozhikode and Malappuram districts;

(ii) rehabilitation of coconut, including replanting of senile and unproductive trees in 30000 ha. in areas free of root wilt disease in Cannanore, Kozhikode, Malappuram and Trivandrum districts;

(iii) provision of minor irrigation facilities in project coconut areas in 1000 ha. in new planting areas and 7500 ha. in rehabilitation areas;

(iv) intercropping in coconut areas in 26,500 ha. of various garden crops without irrigation; about 3000 ha. of cocoa, about 3000 ha. of fodder for dairy cattle and about 2500 ha. of other crops with irrigation;

(v) rehabilitation, including replanting of pepper in 10,000 ha. in Cannanore, Idukki & Kottayam districts;

(vi) rehabilitation of a State-owned cashew plantation of 2280 ha. and new planting of 1470 ha. in Cannanore district;

(vii) establishment about 435 ha. of seed gardens for coconut, cashew, cocoa and spices;

(viii) establishment of ten crumb rubber factories (nine new and one expansion), each of 10, ten/day capacity;

(ix) strengthening of research by CPCRI, KAU and IRB and training and technical assistance; and

(x) provision of improved extension services and investment credit facilities for project participants.

4.16 All activities to be undertaken directly by Government of Kerala (coconut, pepper and seed gardens) have been entrusted to a Special Agricultural Development Unit (SADU) and cashew development to the Kerala State Plantations Corporation (PCK). Rubber processing sub-project would be supervised by the Indian Rubber Board (IRB). The research component would be handled jointly by CPCRI and the

Agricultural University of Kerala (AUK). Investment credit would be supervised by ARDC.

4.17 The KADP was approved by the Executive Directors of the IDA at their meeting held on February, 17, 1977 and the project agreements were executed on April 1, 1977. A banking plan to ensure adequate banking arrangements for the implementation of the project has been prepared by the ARDC and consequently IDA declared the project credit effective on June 29, 1977.

State Farms Corporation of India

4.18 The area brought under cultivation in the State Farm, Aralam, increased to 1763 hectares with the addition of 40 hectares during 1976-77. This State farm is adding significantly to the food production basket of the State and that of the Cannanore district in particular. During 1977 over 11,00 tonnes of tapioca and 250 tonnes of sweet potato were produced and sold. The farm is also gaining significance as a source of quality planting materials. During the reference period over 35,000 budded stems of rubber, 10,000 cocoa seedlings, 1,26,000 rooted pepper cuttings, 2000 clove seedlings 2,300 coffee seedlings and nearly 6,600 cashew seedlings and 1,600 nutmeg seedlings were distributed to the farmers. In addition 25,000 suckers of various varieties of banana were also distributed.

Kerala Agro-Industries Corporation

4.19 The commencement of operation of a subsidiary company, the Meat Products of India Limited, and the securing of substantial assistance from the IDBI and IFCI for the Agro Machinery Corporation have been the major achievements of the Kerala Agro-Industries Corporation during 1976-77. The Meat Products of India took over the Bacon Factory at Koothatukulam originally run by the Department of Animal Husbandry. During the first year of its operation the company sustained some loss. A scheme has been evolved to modernise the plant and to make the project economically viable. The Agro-Machinery Corporation received a loan of Rs. 133 lakhs from the IDBI and IFCI. The assistance given is to set up a plant for the manufacture and assembling of Kubota Power Tillers with Japanese collaboration which would involve an investment of about Rs. 250 lakhs. The factory is expected to go into production by early 1978 and will have a capacity of 3000 power tillers per annum. No new project was started during 76-77. However, the corporation is exploring new areas of operation. Preliminary steps were taken for setting up a pesticide formulation unit. Feasibility studies were also undertaken in setting up mechanical compost plants and fruit processing units. In the area of service activities the Corporation has made modest progress during the year. The hire purchase sale doubled over

the previous year, though the sale of machinery declined by less than half over the previous year (See Table 4.12). Receipts from workshop services declined. The Corporation sustained a loss of over Rs. 9 lakhs during 1975-76 which has been three times over the previous year.

Activities of Kerala Agro-Industries Corporation

(Rs. in lakhs)

Activities	1975-76	1976-77
1. Direct sale of agricultural machinery and implements	82.64	32.70
2. Hire purchase sales	10.75	21.42
3. Sale of spare parts	13.60	11.54
4. Sale of Kubotta components	..	1.63
5. Sale of fertilizers	..	..
6. Sale of paddy seeds	1.39	..
7. Sale of other items	2.76	4.68
8. Sale of Agro chemicals	1.56	0.90
9. Receipts from hiring	7.23	8.55
10. Receipts from work shops/service stations (net)	2.44	1.77
11. Repayment of loans issued	..	..
12. Profit before provision for reserve and Taxes	-2.75	-9.16

Kerala State Coconut Development Corporation.

4.20 The Kerala State Coconut Development Corporation came into existence in October, 1975 only. A project report for organising two integrated coconut processing complexes involving an investment of Rs. 320 lakhs has already been prepared and approved by the Government. The contribution of Rs. 35 lakhs from the Government has been released. Arrangements for obtaining institutional finance have been finalised. The State Bank of Travancore has agreed to provide the term loan and working capital for the project. Each of these complexes will be having a crushing capacity of 60 tonnes of copra per day of 24 hours. Equipped with modern machinery the complex proposed would integrate the processing and marketing operations. It is proposed to build up a net work of marketing channels involving the co-operative societies in the operational areas. The unit for the southern complex has been located and taken possession at Mamam market in Attingal town. Orders for the fabrication, supply and erection of plant and machinery for this complex have already been placed. This complex is scheduled to be commissioned by the middle of 1978. The northern complex is proposed to be set up in Kozhikode district.

State Warehousing Corporation.

4.21 By expanding its primary function of improving storage facilities and entering new areas of operation the State Warehousing Corporation has been able to

increase its profits from Rs. 13.40 lakhs to Rs. 17.45 lakhs during 1976-77 (See Table 4.13). The Corporation has at its command 63 warehouses spread over the length and breadth of the State with a total capacity of about 128,000 tonnes of which over 45,000 tonnes owned by it. Though the profits of the Corporation increased, there has been a decline in the deposits received for storage by 87,000 tonnes to 4.31 lakh tonnes. Correspondingly the number of deposits declined from 18,000 to 17,000 and bank advances from Rs. 270 lakhs to Rs. 185 lakhs. However, the storage charges collected by the Corporation increased from Rs. 41 lakhs to Rs. 59 lakhs. Whether the increased profit is due to enhanced rates in storage charges or due

to expansion of Corporation's activities to new areas such as shipping clearance, transportation, spraying etc., is not clear. The Corporation has ventured into the new area of procurement of cashew nut for the Co-operative Marketing Federation of the State. During a short period of two months the Corporation collected and transported about 70,000 tonnes of cashewnut an average of about 1,000 tonnes per day and established 121 drying yards measuring about 15,000 sq. metres. The success of the marketing operations in cashewnut during the 1977 season has demonstrated that if the various public sector agencies could come together and operate jointly better returns to the farmer can be secured.

TABLE 4.13

Activities of the Kerala State Warehousing Corporation

Sl.No.	Unit	1975-76	1976-77	Actual change	Percentage change
1. Deposits received	Nos.	18,000	16,877	(-)-1,123	(-)-6.24
2. Deposits received (Quantity)	M.T.	5,17,177	4,30,604	(-)-86,573	(-)-16.74
3. Bank advances	Rs.	2,70,00,000	1,85,00,000	(-)-85,00,000	(-)-31.48
4. Storage charges collected	Rs.	40,52,674	59,11,133	(+)-18,58,459	(+)-45.86
5. Profit	Rs.	13,40,674	17,46,288	(+)-4,05,614	(+)-30.25

4.22 Fertilizers, foodgrains and CARE articles together accounted for nearly 85 per cent of the commodities handled by the Corporation (See Table 4.14). As an organisation providing for storage facilities the Corporation has proved to be very successful. However, it has to make much headway in making this organisation an instrument beneficial to the farmers enabling them to hedge against adverse price conditions. Farm commodities like pepper, copra, groundnut, cashewnut, ginger, chillies etc., constituted only a very insignificant proportion of the commodities handled by the Corporation.

Small Farmer Development Agency

4.23 Of the four Small Farmer Development Agencies set up in the State two belong to the Fourth Plan series while the other two commenced their operations during the Fifth Plan in 1975. The original term of the first series has been over. However these agencies were granted extension for two more years till March 1978. These projects as originally conceived are expected to assist 7,000 small farmers, 43,000 marginal farmers and 30,000 agricultural labourers in their respective areas. Investment of the order of Rs. 150 lakhs from the budgetary sources is provided for each agency. Nearly three times this amount are expected to be raised from institutional financing agencies such as cooperatives and commercial banks. The strategy

TABLE 4.14

Commodity-wise Deposits Received by the Kerala State Warehousing Corporation

Sl. No.	1975-76		1976-77		
	Commodity (tonnes)	Per cent	Commodity (tonnes)	Per cent	
1	Foodgrains	1,32,483	25.62	73,424	17.05
2	Other foodgrains	8,210	1.59	10,299	2.39
3	Grams and pulses	6,942	1.35	5,706	1.33
4	Pepper	211	0.04	441	0.10
5	Copra	834	0.16	293	0.07
6	Groundnut	357	0.07	185	0.04
7	Oilcakes	254	0.05	229	0.05
8	Areca nut	565	0.12	1,712	0.40
9	Cashew	239	0.04	321	0.07
10	Fertilizers	2,63,499	51.00	2,42,059	56.21
11	Care articles	44,547	8.61	40,919	9.50
12	Cement	6,516	1.26	3,200	0.74
13	Sugar	35,361	6.83	29,013	6.73
14	Coffee	408	0.08	728	0.16
15	Rubber	281	0.05	4,261	0.99
16	Cardamom	27	0.01	16	0.01
17	Miscellaneous	16,443	3.13	17,798	4.16
	Total	5,17,177	100.00	4,30,604	100.00

of development effort of these agencies is that of developing the resource base of the participating farmers and strengthening the institutions, rendering infrastructural support such as credit and marketing. The main foci in activities are the development of irrigation facilities and support of subsidiary occupations like dairying, goat rearing and poultry farming.

4.24 During 1976-77 the SFDA's in the State made significant progress. Assistance was rendered in digging 3600 wells and installing over 1,600 pumpsets during this period (See Table 4.15). Soil conservation works were executed protecting 1,100 hectares of eroded land. Over 3,000 milch cattle and 13,000 goats were distributed during this period. In addition 628 work bullocks were also distributed. Short term loans amounting to Rs. 3.82 crores and term loans amounting to Rs. 4.12 crores were disbursed. By way of strengthening the infrastructure over 50,000 members were enrolled in the cooperatives and Rs. 2.88 lakhs were given over to the cooperatives towards the risk fund.

TABLE 4.15

Selected indicators of the Progress of the S.F.D.A. Programme in the State

Sl. No.	Indicators	Unit	Achievement during 1976-77	Cumulative till the end of March 1977
(1)	(2)	(3)	(4)	(5)
<i>I. General</i>				
1.	Participants indentified	Nos.	72669	445267
2.	Enrolment in the Co-operatives	"	50002	187632
3.	Wells and tanks dug	"	3584	9227
4.	Filter point tube wells installed	"	24	101
5.	Pumpsets distributed	"	1665	8529
6.	Community tube wells installed/irrigation works	"	..	44
7.	Minor irrigation works executed	"	31	144
8.	Community soil conservation works executed	Hect.	1100	3604
9.	Land development works executed	Nos.	271	781
10.	Seedlings and planting materials supplied	"	1000	212433
11.	Bose ploughs distributed	"	1527	15028
12.	Plant protection equipments distributed	"	524	3650
13.	Milch cattle supplied	"	3516	10794
14.	Poultry birds supplied	"	1600	13411
15.	Ducklings supplied	"	..	32
16.	Goats supplied	"	13282	38602
17.	Custom service of tractors	"	175	9961
18.	Rural custom service units	Nos.	..	5
19.	Demonstration plots laid	"	1405Hect*	5142
20.	Fodder plots laid	"	..	325
21.	Homestead garden established	"	..	520

(1)	(2)	(3)	(4)	(5)
22.	Farmers trained	Nos.	..	2100
23.	Expansion of district poultry farm	"	..	..
24.	Piglings supplied	"	..	..
25.	Participants assisted under rural artisans schemes	"	..	..
26.	Do. rural works programme	"	..	..
<i>II. Strengthening of Co-operatives</i>				
27.	Godown subsidy for co-operatives	Rs. lakhs	..	1.85
28.	Managerial assistance to Co-operatives	"	..	5.64
29.	Share capital loans to co-operatives	"	..	2.00
30.	Interest rebate to co-operatives	"	..	..
31.	Capital subsidy to co-operatives	"	..	..
32.	Risks fund contribution	"	2.88	13-94
33.	Interest-free loans for purchase of shares	"	..	..
<i>III. Credit (Commercial year)</i>				
34.	(a) Co-operatives			
	Short term	Rs. lakhs	367.84	842.76
	Medium term	"	291.60	645.93
	Long term	"	23.70	62.81
35.	(b) Commercial banks			
	Short term	"	14.33	35.32
	Term loans	"	102.86	216.80
36.	Agro Industries Corporation	"	..	0.96
37.	Gardens attached to One Lakh Housing Scheme	Nos.	..	2500
38.	Boats and nets supplied to fishermen	"	13	68
39.	Work bullocks and carts distributed	"	629	629

* Relates to SFDA, Trivandrum and Trichur.

Soil Conservation and Soil Survey

4.25 Through various schemes operated by the Soil Conservation Department during 1976-77 nearly 1,500 hectares of land involving an investment of nearly Rs. 53 lakhs has been protected from the hazards of soil erosion (See Table 4.16). In addition the Department has taken up 27 conservation schemes costing Rs. 25 lakhs under the various SFDA's. Currently 73 schemes costing about Rs. 85 lakhs are under various stages of implementation. The Department has identified that the river valley catchments of the Idukki district is highly vulnerable to high erosion conditions causing irretrievable damage to the reservoir capacity of the Idukki Power Project. It is estimated that over 600 tonnes of soil per hectare is lost annually where the slope exceeds 30 per cent. Nearly 2.5 lakhs hectares of land in the various river valley catchments of the State require urgent soil conservation measures.

4.26 Under the soil survey programme over 47,000 hectares have been covered during 1976-77. So far detailed soil survey in 6.75 lakhs hectares and reconnaissance soil survey in 7.62 lakhs hectares have been completed in the State.

TABLE 4.16

Progress of Soil Conservation and Soil Survey Schemes in Kerala State during 1976-77

Schemes	Achievement	
	Physical Hectares	Financial (Rs. lakhs)
I. Soil Conservation Schemes		
1. Soil conservation in arable lands	614.83	25.02
2. Reclamation of water logged areas	100.00	1.14
3. River valley catchment, Idukki	43.00	2.29
4. Soil conservation in lands belonging to Harijans and tribals	443.94	17.03
5. Soil conservation irrigated lands	100.00	0.81
6. Soil conservation Research and training	..	3.22
	1058.77	49.51
(b) Centrally sponsored schemes		
River Valley Kundah Project	233.53	7.33
Total (Central & State)	1392.30	56.84
II. Soil Survey Schemes		
(1) Soil Survey in Command Areas	420.82	2.87
(2) Soil Survey in Government lands and forest lands	6050.35	2.11
	48132.35	4.98
Grand Total	49524.65	61.82

Kerala State Land Development Corporation

4.27 In 1977 also, the Kerala State Land Development Corporation mainly concentrated on the execution of the Kuttanad Development Project which aims at the conversion of 52,000 hectares of paddy land spread over in 7 taluks of Alieppey District and 3 Taluks of Kottayam Distrit into double crops land. The first phase of the Project involving on outlay of Rs. 375 lakhs was completed in December 1977 as scheduled. The Agricultural Refinance and Development Corporation has agreed to refinance the execution of the second phase of the Project costing Rs. 600 lakhs to be executed during the three year period from 1978 to 1980.

4.28 The Corporation has so far authorised preparation of land development schemes for 261 padasekharams in the Project covering an area of 25,482 hectares at an estimated cost of Rs. 1,041 lakhs. Execution of works was approved in the 188 padasekharams at an estimated cost of Rs. 744 lakhs which would benefit an area of 18,823 hectares. Works have been completed in 59 schemes at a cost of Rs. 116 lakhs to

benefit an area of 2,783 hectares. Works are in progress in 76 schemes at an estimated cost of Rs. 429 lakhs which would benefit an area of 2,783 hectares. An amount of Rs. 381 lakhs has been spent upto the end of December 1977 for the execution of works under the Project. An area of more than 7300 hectares has been made fit for double crop cultivation as a result of the work executed by the KLDC either wholly or partially.

4.29 Another important Project which is proposed to be taken up by the KLDC for implementation is the Trichur Koie land Development Project involving an outlay of more than Rs. 900 lakhs for which Government contribution will be Rs. 292 lakhs. The scheme would benefit 11,000 hectares of paddy fields in Trichur District and is proposed to be completed within a period of four years. The Project Report of the Corporation in this regard has been approved by the ARDC for financing. All preliminary works for taking up the Project have been completed by the Corporation and actual execution of works will commence within a few days.

4.30 The development of Ponnani Kole lands extending to 3,200 to 3,600 hectares is also being proposed to be undertaken under a Master Plan. A pilot scheme costing Rs. 5.5 lakhs has already been approved for execution to benefit an area of 172 hectares. Work in another portion of the Ponnani Kole lands in Eramangalam and Marancherry villages covering an area of 94 hectares at an estimated cost of Rs. 5.5 lakhs will also be executed very soon.

4.31 In addition to this above schemes, the Corporation is examining the technical feasibility and economic viability of many potential schemes throughout the State during the year under review and they are under various stages of processing.

Kerala State Land Use Board

During the year 1976-77, the Land use survey in Idukki district was continued. The survey in respects of Peermade taluk had been completed and the respect is being prepared. In order to conduct the survey using the latest scientific techniques, the Board entered into agreement with the Space Applications Centre, Ahmedabad, to conduct the survey using remote sensing techniques. Steps have also been taken to start a photo-interpretation unit in the Board to undertake these studies. During the year under review, the Board has taken preliminary steps to conduct a reconnaissance soil conservation survey in Quilon district. The object of the survey is to identify areas requiring soil conservation on a priority basis. 1976-77 the Board published a report on the survey of "Identification of Compact Vacant Area Suitable for Cashew Cultivation".

Wynad Development

4.33 Launching a project for developing 1500 hectares of vested forest land in Achooranam village, South Wynad Taluk, into a cardamom plantation and rehabilitating 750 tribal families is a major development effort attempted in Wynad during 1976-77. The project was started as part of the Western Ghat Development Project. It is envisaged in the project to organise a co-operative joint farming society by enrolling 750 selected tribal families to undertake the cultivation of cardamom in the forest land. The Cardamom Board has agreed to give all technical assistance. The seedlings required for the production are to be produced by the society itself. During 1976:77 a cardamom nursery of 3 hectares was started and Rs. 6.56 lakhs was spent on the project. Close to this area and around Pookot lake, a dairy project to rehabilitate 110 tribal families has also been formulated. In raising the nursery 40 beneficiary families selected for the dairy project have been engaged.

Agricultural Credit

4.34 The cooperative credit system in the State made modest progress during 1976-77. The average membership per society rose from 1331 to 1400 (See Table 4.17). There has been significant increase in the average working capital per society which rose by about 36 percent. So also the loan advanced per advancing society rose by 24 percent.

TABLE 4.17

Selected Indicators of the Performance of the Agricultural Credit Societies

Sl. No.	Indicators	As on 30-6-1976	As on 30-6-1977*
1.	Average membership per society (Nos.)	1331	1400
2.	Average share capital per society (Rs.)	91348	92067
3.	Average deposit per society (Rs.)	209518	217337
4.	Average deposit per member (Rs.)	157	155
5.	Average working capital per society (Rs.)	578468	786231
6.	Average loan per member (Rs.)	239	245
7.	Percentage of borrowing members to total members	55	48
8.	Average loan advanced per advancing society (Rs.)	318580	394362
9.	Average loan advanced per borrowing member (Rs.)	436	505
10.	Percentage of overdue to outstanding	34	30

*Figures are provisional

4.35 There has been an increase of 1.2 lakhs in the membership of the co-operative societies in the State (See Table 4.18). In its turn the paid up share capital increased by 48 percent from Rs. 15.44 crores to Rs. 22.82

crores. Short term loans advanced by the societies registered only a modest increase of 11 percent from Rs. 46.43 crores to Rs. 51.32 crores while practically there was no improvement in the disbursal of medium term loans. On the financial stability of the societies the emerging trend is that of marginal improvement. Though the loans overdue increased by 23 percent from Rs. 19.70 crores to Rs. 24.27 crores, the percentage of loans overdue to outstanding declined to 30 from 34. Though the deposits position improved slightly the working capital available with the societies declined marginally.

TABLE 4.18

Selected Indicators of the Credit Operations of the Agricultural Credit Societies

Sl. No.	Indicators	As on 30-6-1976	As on 30-6-1977*
1	No. of Societies	1678	1657
2	No. of members (Lakhs)	23.47	24.67
3	Paid up share capital (Rs. in lakhs)	1543.97	2282.16
4	Statutory reserves	178.98	178.99
5	Other reserves	517.89	517.89
6	Deposits	3644.74	3730.52
7	Other borrowings	4138.81	4138.81
8	Working capital	13185.10	12965.95
9	Loans advances during the year		
	(a) Short term	4642.87	5132.32
	(b) Medium term	1019.40	1061.65
10	Loans outstanding at the end of the year	6533.08	7341.39
11	Loans overdue	1970.26	2427.33
12	No. of societies that worked at profit	874	874
13	Net profit for the year (Rs. lakhs)	154.31	154.31
14	No. of societies that worked at loss	790	783
15	Loss sustained (Rs. lakhs)	210.67	210.67
16	No. of societies without profit/loss	14	

*Figures are provisional.

Long-term credit

4.36 The Kerala Co-operative Central Land Mortgage Bank is the primary agency in the State charged with the responsibility of making available long term credit to farmers for farm development. During the year 1976-77 the bank has succeeded in making a break-through in its activities. Under its ordinary loaning programme the bank disbursed Rs. 6.91 crores against Rs. 2.92 crores in the previous year (See Table 4.19). The major thrust of development continued to be on the augmentation of water resources though digging more wells and installing pumpsets.

4.37 The bank attempted a major reorganisation and strengthening of its apparatus by establishing seven regional offices and constituting a Planning Cell at the headquarters with sufficient specialist support. The Central Bank with the strong support of the State Government, took a series of measures to improve the organisation efficiency of the institutions under it. A Staff Training Centre was established to get its work

roots level functionaries trained and reoriented to undertake the vastly expanded responsibilities. To a great extent procedures of formalities in the disbursement of loans have been simplified.

TABLE 4.19

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

(Rs. in lakhs)

Purpose	1975-76 (Financial year)	1976-77
1 New wells	71.68	136.16
2 New tanks	17.05	43.55
3 Pumpsets	20.80	38.50
4 Agricultural machinery	12.74	22.44
5 Repairs to wells	10.51	36.17
6 Repairs to tanks	2.70	10.41
7 Persian wheels	0.08	0.06
8 Field channels	3.03	6.00
9 Cattle shed and farm house	23.33	67.26
10 Fencing	17.93	47.35
11 Levelling and bunding	63.27	183.99
12 Terracing	15.48	23.25
13 Drainage channels	1.01	1.62
14 Plantations	28.93	55.64
15 Others	3.70	18.57
Total	292.24	690.96

4.38 Apart from the 50 schemes involving an investment of Rs. 16.4 crores which are already under various stages of implementation, the bank has proposed 12 more schemes covering an investment of Rs. 22.6 crores for assistance from the Agricultural Refinance and Development Corporation. The bank will have a very substantial role to play in the implementation of the World Bank supported tree crops development project. Apart from the expansion of developmental activities the bank has also attempted to improve the financial operations of its primaries. Only two out of the 30 primary banks in 1976-77 had overdues above 25 per cent.

Kerala Agricultural University

4.39 Development of rice varieties suited to specific agronomic conditions and disease resistance, screening of tolerant varieties against brown plant hopper developing cropping patterns or rice lands, evolving new water management practices, developing a jet pump attachment for increasing the discharge of centri-fugal pumps and identifying new sources of animal feed were some of the highlights to the research activities of the Kerala Agricultural University initiated in its campuses and research stations during 1976-77.

4.40 On the academic side the University pursued the restructuring of the teaching programme. On

account of the increasing demand for trained agricultural graduates the University increased its admissions to the graduate programme in B. Sc. (Ag.) by fifty per cent. Admissions to the post graduate level on agriculture during the period doubled. So also admissions to the masters' programme in various specialities of Veterinary Science. During the academic year 1976-77, 44 graduates in agriculture, 19 in Horticulture and 31 in Veterinary Science came out. (See Table 4.20).

TABLE 4.20

Teaching Programme of the Kerala Agricultural University

Programme	Unit	Academic year	
		1975-76	1976-77
<i>Graduate Programmes</i>			
Admission to B.Sc. (Agriculture)	Nos.	89	112
Admission to B.Sc. (Horticulture)	"	21	30
Admission to B.V.Sc. & A.H.	"	43	53
Successful completion of B.Sc. (Ag.)	"	44	44
Successful completion of B.Sc. (Hort.)	"	19	19
Successful completion of B.V.Sc.	"	24	31
<i>Post Graduate Programme</i>			
Admission to M.Sc. (Agri.)	"	17	42
Admission to M.V.Sc.	"	10	19
Admission to Ph. D. (Ag. Faculty)	"	11	7
Admission to Ph. D. (Vet. Faculty)	"	2	Nil
Successful completion of M.Sc. (Agri.)	"	19	17
Successful completion of M.V.Sc.	"	7	15
Successful completion of Ph.D.	"	Nil	Nil
Admission to M.Sc. (Hort)	"	..	12
Successful completion of M.Sc. (Hort.)	"	..	Nil

4.41 Identification of a rice culture (ARC-11774) suitable for the rainfed uplands, an awnless mutant 'Oorpandy' which is saline resistant a medium duration rice culture 1665 with multiple resistance to biotypes of brown hopper; a high yielding cashew type (BLA. 139-1) and Monsmari variety of dwarf cavandish banana variety, the release of medium duration rice culture (57-5-1) tolerant to brown hopper a high yielding dual purpose variety of cowpea (PTB-1) selection of a vetiver Nilambur are some of the major achievements in the variety improvement efforts undertaken by the research stations of the University. Saving in irrigation water to the extent of 30 to 55 per cent was found possible by adopting 'phasic stress' irrigation comprising of intermittent irrigation on hair cracking points in the vegetative phase and a stress-free continuous submergence in the generative phase. The technique of 'immersion rise' to tap the subsurface

water through tile drains and conveying it through gradient flow to lower fields was evolved by the water management research group of the University. Placement of nitrogen in the form of 'briquets' was found to double the nitrogen efficiency. Substituting vegetable or tapioca in the place of a rice crop during summer was found to save 80-85 percent in irrigation water at the same time produce substantially high levels of caloric (16.4 tonnes of tapioca or 17.4 tonnes of vegetable against 2.8 tonnes of paddy). Research has shown that raising the fodder cowpea could provide 22 tonnes of green fodder in 3 cuttings and add about 5 tonnes of crop residue, using only 10 percent of water needed to raise a rice crop. Closer spacing of coconut (6.6 metres) in triangular method was found to be most remunerative in latrite soils. Two summer irrigations one in the vegetative phase at the branching stage and the other in the generative phase at flowering or pod formation have been found to increase the yield of sesamum by 50 percent. The development of a jet attachment for the discharge capabilities of centrifugal pumps operating at low lifts by one of the members of the staff of the university is a significant contribution to improve water lifting devices.

4.42 A number of feed and fodder sources were tried to determine their feed qualities and to identify suitable ones. Trials have shown that rubber seed cake can be profitably included in the concentrate mixture for calf up to 30 percent and for the ration of poultry up to 15 percent. A method for enriching paddy straw using urea at 20 percent and molasses at 10 percent levels have also been developed. Other important areas of research undertaken in veterinary sciences are feed trials on goat kids, comparing calf starters, using fermenting colostrum, controlling round worms in goats and poultry and ticks in live stock and the development of successful surgical technique for relieving the impaction of bovine stomach with rubber latex.

Central Tuber Crops Research Institute.

4.43 The launching of the operational research Project at Vattiyoorkavu, Trivandrum, to demonstrate the utility of new innovations and practices developed in its laboratories, and the release of two hybrids of tapioca viz., Sri Sahya (h-2304) and Sri Visakham (h-1687) were the important achievements of the Central Tuber Crops Research Institute during the period of review. In the 138 minikit trials laid out in Kerala these varieties gave mean yields of 45 and 44 tonnes per hectare respectively. The Institute entered into collaborative work with the International Development Research Centre, Canada. The IDRC is expected to help the institute in strengthening and broadening tapioca research and in establishing viable and economic techniques for disseminating tapioca research findings to farmers. Under this programme 162 farmers were trained. The institute

also gave training to 15 tribal farmers for a duration of 15 days. The institute established a plant introduction unit at Cuttack in Orissa State where new germ plasm of tapioca from other countries will be introduced, screened and evaluated for their desirable characters.

Farm Information Bureau

4.44 Farm Information Bureau, the agency rendering communication support to the various departments and agencies engaged in the agricultural development in the State, continued its regular programme of providing farm information support. The farm feature in news papers, the Farm News in the AIR and Farm Book Corners, three of its outstanding innovations in the field of a farm information communication system were expanded further during the year 1976-77.

4.45 The Bureau rendered information support to the daily newspapers for undertaking the weekly farm feature which covers periodically the important developments in the field of farm technology and other vital problems concerning the farming community. More news papers have commenced the farm feature as a regular weekly feature. This innovation of involving directly the leading daily newspapers in the field of dissemination of farm information for the farming community has been a unique experience in the country and has opened up news vistas in this area.

4.46 Farm News in the AIR now covers the entire State. The Farm News when started was a short news feature lasting for five minutes during the morning, from 7.20 a.m. to 7.25 a.m. went on air on Mondays Tuesdays, Thursdays and Saturdays covering the southern districts only. But now farm news bulletins are broadcast in the evenings also from the Trivandrum Station of the AIR and relayed by Alleppey and Trichur Stations. The scheme was later extended to the Kozhikode station of the AIR. To begin with farm news bulletins were broadcast from this Station between 7.20 p.m. to 7.25 p.m. in the evening on all days in the week except on Tuesdays and Fridays. Now farm news is broadcast on all days in the week from this Station.

4.47 The Farm Book Corners, a unique programme initiated by the Farm Information Bureau in collaboration with the Kerala Grandhasala Sangham and State Language Institute in 1975, was expanded further during this year. Altogether 445 Farm Book Corners were opened during the year.

Plantations

4.48 The plantation crops of Kerala account for about one-sixth of the total net area sown and contribute to a considerable share of the regional income, employment as well as foreign exchange earnings of the State from the agricultural sector. The overall progress evinced by the sector during 1976-77 was commendable.

The output of rubber, tea and coffee moved up remarkably to the order of 8%, 11% and 4% respectively. The only exception to this trend in output was in respect of cardamom which suffered a drastic decline in production to the extent of 40 percent. However the average auction prices realised by cardamom and tea were very much higher in 1977 than in the previous year. In respect of coffee the prices remained more or less steady. Rubber on the other hand experienced a sharp fall in prices in 1976-77 compared to the earlier years. Despite the assistance rendered by Government of India in fixing a floor price for rubber, the producers were experiencing considerable difficulties in disposing their stock at an economic price. The plantation crops together provide employment for about 2.5 lakh workers.

Rubber

4.49 The rubber plantation industry in the country recorded a commendable progress during 1976-77 both in area and production. But due to the low off-take of rubber by the manufacturing sector, there had been a very heavy accumulation of stock with the rubber growers which in turn led to a steep fall in rubber price. The number of rubber growing units in the country recorded an increase from 132,047 to 137,127 and the area from 2.24 lakh hectares to 2.31 lakh hectares in between the years 1975-76 and 1976-77. Out of the 1.37 lakh units, only 595 are large estates of 20 hectares and above in size. The remaining are small holdings (less than 20 hectares) which constitute 71 percent of the total area under rubber in India. The area covered by high yielding varieties in 1976-77 stood at 1.74 lakh hectares, (75 percent of the aggregate area) as against 1.64 lakh hectares (73 percent) in 1975-76.

4.50 Kerala accounts for almost the entire area under rubber in India, her share being 91% in 1976-77. The size and distribution of rubber holdings and estates is shown in Table 4.21. The actual

TABLE 4.21
State-wise Distribution of Area Under Rubber
(1976-77)

State	Total area (Hectares)	Holdings		Estates	
		No. of Units	Area (Hectares)	No. of Units	Area (Hectares)
Kerala	209723	133031	157546	521	52177
Tamil Nadu	11570	3242	4944	45	6626
Karnataka	7763	242	525	23	7238
Andaman & Nicobar Islands	938	..	..	4	938
Other Regions	569	17	69	2	500
Total	230653	136532	163084	595	67479

4/853/MC.

area under rubber in the State during 1976-77 stood at 209,723 hectares compared to 205,383 hectares in 1975-76, the increase in area over the year being 4,340 hectares (2.1%). 75 per cent of the area comprised small holdings with an average size of 1.18 hectares and the estates sector covered the rest of the area. While the number of estates showed decreasing trend, that of the small holdings showed an upward trend. The number of rubber estates in Kerala decreased from 585 in 1970-71 to 521 in 1976-77. The number of small holdings, on the other hand, moved up from 108,332 in 1970-71 to 133,031 in 1976-77. The trend in the number and area of estates and holdings is shown in Table 4.22

TABLE 4.22

Trend in the Number and area of Estates and Holdings in Kerala

Year	Number of Units		Area (Hectares)	
	Holdings	Rubber estates	Holdings	Estates
1970-71	108332	585	131949	55813
1973-74	121239	560	146371	58233
1974-75	124540	543	150132	52186
1975-76	128050	528	153380	52003
1976-77	133031	521	157546	52177

Between the years 1970-71 and 1976-77 the area under holdings increased from 131,949 hectares to 157,546 ha. registering an increase of 25,597 ha. (19.4%). In respect of the estate sector, the area declined from 55,813 ha. to 52,177 ha. during the years, making a decrease of 3,636 ha. (6.5%).

4.51 The production of natural rubber in India which was 137,750 tonnes in 1975-76 increased to 149,632 tonnes in 1976-77 recording a growth rate of 8.6 percent. The share of Kerala was estimated at 139,349 tonnes (93.1%) in 1976-77 compared to 128,769 tonnes (92.7%) in 1975-76. The increase recorded over the year was 8.2%. The average yield has increased from 653 kg/ha. in 1970-71 to 772 kg/ha. in 1975-76 and 806 kg/ha. in 1976-77 at the national level. The Rubber Board has launched a number of development oriented schemes with a view to promoting production and productivity of rubber in the country. As a result of these development programmes the production and productivity of rubber were increasing steadily during the past few years.

4.52 The consumption of rubber in India during 1976-77 was estimated at 192,281 tonnes, the share of natural rubber being 137,623 tonnes (72%), synthetic rubber 33,701 tonnes (18%) and reclaimed rubber 20,957 (10%). Compared to the previous year, the level of consumption of all rubber in 1976-77 increased by 14,795 tonnes (8.3%). The consumption of rubber in Kerala was estimated at 11,166 tonnes (5.8% of the all

India level) and of this the share of the natural rubber was 8,735 tonnes. While at the all India level the total consumption of rubber went up in 1976-77 Kerala had an altogether different experience with a marginal fall in consumption to the extent of 233 tonnes (2%). The data on consumption of rubber are shown in Table 4.23.

TABLE 4.23
Consumption of Rubber

(Tonnes)					
Year	Country State	Natural Rubber	Synthetic Rubber	Reclaimed Rubber	Total Consumption
(1)	(2)	(3)	(4)	(5)	(6)
1974-75	India	132,604	24,376	18,096	175,076
1975-76	India	125,692	32,452	19,342	177,486
	Kerala	9,268	1,062	1,069	11,399
1976-77	India	137,623	33,701	20,957	192,281
	Kerala	8,735	1,036	1,395	11,166

4.53 Eventhough the level of consumption has increased by 9.5% during 1976-77 it was very much less than the production of rubber during the year. Due to the low off-take by the manufacturers, there was a glut in the market for rubber which subsequently led to a sharp fall in price. The average price which prevailed at Rs.744 per quintal in 1975-76 declined to Rs. 596 per quintal in 1976-77. With effect from 6th August, 1977, Government of India notified minimum prices for various grades of natural rubber for a period upto 31st March 1978. The notified prices for smoked sheet rubber of RMA I to V vary between Rs. 655.00 and Rs. 625.84 per quintal. The notified minimum prices which were in force prior to this revision varied from Rs. 520.00 to Rs. 496.86 per quintal for RMA I to V grades. Despite the increases in the minimum prices the rubber plantation industry has been pressing for a scientific revision of the floor price of rubber by taking into account all the cost factors and allowing a reasonable return to the growers.

4.54 A total quantity of 12,296 tonnes of Rubber worth Rs. 8.31 crores was exported from India during 1976-77 as against 2,700 tonnes in 1973-74 and 350 tonnes in 1974-75. No rubber was exported during the year 1975-76.

Tea

4.55 Tea is one of the important plantation crops of India and the area under tea at the national level has been steadily increasing in the past. Between the years 1974 and 1976 the area under tea plantations has gone up from 3.62 lakh hectares to 3.64 lakh hectares registering a marginal increase of 20,000 hectares (0.6 percent) over the years.

4.56 Kerala accounts for about 10 per cent of the area under the crop. Contrary to the upward trend of increasing area at the national level, the extent of the crop in Kerala has been revealing a declining trend. Between 1974 and 1976 the area under the crop has declined from 36,907 hectares to 36,327 hectares in Kerala. The decrease over the years was of the order of 1.6 percent. The State-wise distribution of tea estates by size in 1975 is given in Appendix 4.10. The fall in the area under tea in Kerala could be attributed to the inertia shown by the planters, particularly the foreign owned plantation companies, in replanting the old sick and uneconomic tea gardens. This lapse on the part of the management will hamper the future of tea industry both from the point of view of output and employment.

4.57 Despite the fall in the area, production of tea in Kerala has been going up steadily in the past, akin to the trend reflected at the national level. From 42 thousand tonnes in 1974, the production of tea increased to 43 thousand tonnes in 1975 and 48 thousand tonnes in 1976. The State could achieve this up trend in output on account of a number of factors like improved agricultural practices and scientific management which resulted in a rise in productivity.

4.58 The yield per hectare of tea was 1319 kilogram in 1976 compared to 1189 kilogram per hectare in 1975 and 1142 kilogram per hectare in 1974. Despite the increases in the yield per hectare of tea in Kerala, it was the lowest in south India. Tamil Nadu had a productivity of 1658 kg/ha. and Karnataka 1950 kg/ha. At the all India level the yield per hectare was 1405 kg/ha. The data on area, production and yield per hectare of tea in different States are shown in Appendix 4.11.

4.59 Indications are that the output of tea in India and at the global level would touch a new record of production in 1977 mainly as a result of the favourable weather conditions and higher level of productivity. Countries like Sri Lanka and Kenya have also achieved larger production, yielding to an increased world output of tea.

4.60 At the Cochin tea auctions the average sale price prevailed at Rs. 15.83 per kilogram during January to November 1977 as against Rs. 10.80 per kilogram in 1976. In 1976-77 about 243,200 tonnes valued at Rs. 292.87 crores were exported from India. The tea export in the previous year stood at 212,400 tonnes valued at Rs. 236.92 crores.

Coffee

4.61 Coffee cultivation in the country is mainly confined to the three South Indian States of Karnataka, Kerala and Tamil Nadu. Karnataka accounts for 59%, Kerala 24% and Tamil Nadu 16%. Andhra

Pradesh, Assam and other States account for the remainder. The total area under coffee in India according to the Coffee Board in 1975-76 was 171,535 hectares as against 156,138 hectares in 1974-75, registering an increase of 15,387 hectares (9.9%) over the year.

4.62 The estimate of area under coffee plantations in the State went up from 38,814 hectares in 1974-75 to 40,502 hectares in 1975-76, the increase over the year being 4.3%. The total holdings numbered 37,604 out of which 37,311 holdings (99.2%) belonged to the category of small holdings of 10 hectares and below. Robusta is the major variety of coffee cultivated in Kerala (90% of the area) followed by Arabica.

4.63 The production of coffee at the national level which stood at 84,000 in 1975-76, (less than 9.2% compared to 1974-75) picked up remarkably during 1976-77 and reached an all time record of 102,500 tonnes in 1976-77. The increase in 1975-76 was estimated at 18,500 tonnes (22%). The State accounts for about 15% of the national coffee production. The estimated production of coffee in Kerala has recorded a steady increase. From 11,045 tonnes in 1974-75, the production increased to 14,395 tonnes in 1975-76 and to 15,030 tonnes in 1976-77. While the increase between 1975-76 and 1976-77 was only 2 percent at the State level, the progress achieved between 1974-75 and 1976-77 was 35 percent in respect of Kerala as against 11 percent for the country as a whole. The coffee produced in Kerala during 1976-77 includes 13,615 tonnes of Robusta and 1415 tonnes of Arabica.

4.64 Sale price of coffee realised from the pool auctions both for internal and export markets during 1976 and January-October 1977 are shown in Table 4.24.

TABLE 4.24
Auction Prices of Coffee

Grades	Price in Rs. per 50 Kg. exclusive of central Excise duty and Taxes			
	Internal Sales		Export Sales	
	1976	1977 Jan.—Oct.	1976	1977 Jan.—Oct.
Plantation A	517.50	517.50	1058.25	1527.50
Arabica Cherry	486.00	489.25	955.50	1984.00
Robusta Cherry	474.00	485.75	940.50	1275.75

4.65 The export of coffee from India was 47,572 tonnes valued at Rs. 114.04 crores in 1976-77 as against 59,386 tonnes valued at Rs. 66.65 crores in 1975-76 registering 20 percent decrease in quantity and 71% increase in value.

Cardamom

4.66 Cardamom, the aromatic and fragrant 'Queen of Spices' is the second largest foreign exchange earner among the spice crops of our country. Cardamom cultivation in India is concentrated in the southern States of Kerala, Karnataka and Tamil Nadu. Among these, Kerala accounts for the major share of the area and production of Cardamom.

4.67 The estimated area under cardamom in India is 91,476 hectares out of which 55,188 hectares (60%) are in Kerala, 28,223 hectares (31%) in Karnataka and 8065 hectares (9%) in Tamil Nadu. Of the total area under cardamom in the State, about 52,000 hectares (94%) have been registered under the Cardamom Registration Act. The distribution of registered cardamom plantation in the State during 1975-76 was as shown in Table 4.25.

TABLE 4.25
Distribution of Registered Cardamom area in Kerala

District	Registered Estates	
	Number	Area (Hect.)
Trivandrum	4	164
Quilon	2	149
Idukki	14,729	40,969
Trichur	1	8
Palghat	83	3549
Malappuram	6	182
Kozhikode	195	3204
Cannanore	61	1213
Total	15,081	49,438

4.68 The registering authorities under the Act are the Government of the States in which cardamom is grown i.e. the State Governments of Kerala, Karnataka and Tamil Nadu. The pace of registration has attained long strides as a result of various measures taken by the Cardamom Board and the State Governments. The distribution of plantations according to size of holdings registered with the Cardamom Board in 1976-77 is shown in Table 4.26.

TABLE 4.26
Distribution of Registered Cardamom Estates according to size of holdings (1976-77)

Size of holdings (Hectares)	Kerala		India	
	No. of estates	Area ('000 Ha.)	No. of Estates	Area ('000 ha.)
(1)	(2)	(3)	(4)	(5)
0-2	10407	10570	17282	16182
2-4	3075	8603	4740	19098
4-8	1878	10299	2615	19761
8-20	759	8749	1113	19020
20-40	148	9772	249	6390
40 and above	107	9837	194	20665
Total	16374	51830	26193	82476

The number and area of cardamom estates in the State were steadily increasing in the past. The number of estates increased from 15,643 in 1975-76 to 16,374 in 1976-77 and the area from 50,320 hectares to 52,000 hectares during the years. The increase over the year was 4.6 percent in number of estates and 3 percent in area. Of the 16,374 cardamom plantations in the State 15,360 plantations (94%) comprised small holding of less than 8 hectares size, covering 57 percent of the area. At the national level the small holdings constituted 94% of the plantations and covered 92 percent of the area. Large estates of 40 hectares and above constituting 1 percent of the cardamom plantation accounted for 69% of the area in Kerala.

4.69 The production of cardamom during the last 6 year period ranged between 2200 tonnes and 3800 tonnes at the national level. The record production of 3800 tonnes in 1971-72 could be attributed mainly to favourable weather condition. The production during 1976-77 was estimated at 2200 tonnes as against 3000 tonnes during 1975-76. The shortfall in production was mainly due to severe drought conditions. The export of cardamom suffered a decrease from 1941 tonnes in 1975-76 to 893 tonnes in 1976-77. Consequently the foreign exchange earnings through the export of cardamom too declined from Rs. 19.38 crores to Rs. 14.06 crores over the year.

Land Reforms

4.70 A number of agrarian reforms have been under way in Kerala, the foremost of these being the Kerala Land Reforms Act (1963). These reforms aiming at the abolition of feudal landlordism as well as intermediary interests on land and the evolution of a strong basis for peasant proprietary are expected to ensure the maximum utilisation of both land and manpower resources. The results would tend to widen dispersion of ownership of land among the actual cultivators leading to accelerated growth of rural economy, increased employment opportunities and assured social justice to all.

4.71 The K.L.R. Act (1963) as amended subsequently from time to time adumbrates all tenants to become owners of tenancy lands. It also provides for giving option to the hutment dwellers to purchase their homesteads with the lands appurtenant thereto. Above all it stipulates taking over and distributing lands in excess of ceiling area. The Act came into full force from the beginning of 1970.

4.72 The progress of the implementation of the K.L.R. Act has been commendable. The provisions relating to the tenancy reforms and purchase of Kudikidappu rights have almost been implemented in full. What remains to be done about the Act mostly pertains to the ceiling provision and payment of compensation to the landlords. However, the beneficiaries

of surplus lands, who belong to the lot of rural poor, need considerable supporting programmes for the integrated development of their land including housing.

4.73 The right, title and interest of land owners and intermediaries in respect of tenanted lands stand vested in government with effect from 1-1-1970. Government have taken upon themselves the liability to pay compensation to the landlords and intermediaries for the vesting of their rights in government. The tenants get the full benefit of ownership even from the very day of the vesting. The tenants are bound to accept the assignment and pay to government the purchase price. The tenanted holdings in the State were estimated as 25 lakhs. In this context, 34.37 lakh cases were filed or initiated upto the end of December 1977 for assignment of the rights of landlords and intermediaries to cultivating tenants as against 31.49 lakhs in December 1976. The applications additionally filed and initiated during 1977 numbered 2.88 lakhs, 33.02 lakh cases (96%) have already been disposed of. The number of cases allowed stood at 22.64 lakhs and the number of certificates of purchase issued 20.75 lakhs at the end of December 1977. The pending applications for disposal numbered 135,000 (4%) and among the allowed cases 189,000 persons more were to be issued certificates of purchase. The data are given in Appendix 4.13.

4.74 According to the ceiling provisions of the Act persons holding land in excess of the ceiling area should submit a return of lands held by them to the State Land Board. With effect from 1-1-1970, no person is entitled to own or hold or to possess under a mortgage, lands in the aggregate in excess of the ceiling area. The estimated extent of surplus land in the State is 1.5 lakh ordinary acres. 58,842 ceiling returns were filed upto 31-12-1977. Out of this 50,426 (86%) cases were disposed of, ordering surrender of 1.22 lakh acres of land. The extent taken over constitutes 64,784 acres (53%). Of these, 41,063 acres have been distributed to 1,862 persons. The beneficiaries include 22,949 scheduled castes and 4,313 scheduled tribes and they are issued 17,247 acres, comprising 42% of the land distributed. 11,955 acres are reserved for public purposes, while 10,273 acres are retained undistributed on account of problems relating to gift, dispute, vested forest and stay against assignment. Stay orders of the High Court as well as problems relating to gift, etc., account for the delay in the take over and distribution of surplus land. An area of 37,061 acres of land is involved by stay against taking possession.

Compensation for the lands taken over is paid in bonds. Till the end of December 1977 bonds worth Rs. 78 lakhs have been issued. There is a provision for payment of interim and final annuity to religious and charitable institutions of a public nature and so far the Land Board has declared 2431 institutions of this category. The Land Tribunals have settled 223

annuity cases involving Rs. 12.95 lakhs and final annuity has been sanctioned by the Government in 154 cases. The total amount of compensation payable for take over of surplus lands is estimated at Rs. 3.15 crores and the receipt by way of purchase price due from assignees of surplus lands is about Rs. 3.50 crores compensation to the order of Rs. 74 lakhs in bonds has been paid till December 1977.

4.75 A scheme for giving financial assistance to the assignees of surplus lands for development of plots has already been taken up for implementation. This scheme envisages an outright grant of Rs. 100 per acre for seeds, manure etc., and investment support for long-term development at Rs. 200 per acre for land levelling, shaping etc., to the assignees. 80% of the investment support to outright grant and the balance is loan repayable in 5 equal instalments during a period of 7 years. Financial assistance is also admissible to Joint Farming Co-operative Societies. The Joint Farming Co-operative Societies were formed in Alleppey District for the cultivation of 1,600 acres of surplus lands in Kuttanad area. These Societies were given assistance as detailed below:

	Rs.
Short term grant	1,65,000
Long term grant	38,500
Long term loan	38,500
Total	2,32,000

4.76 The details of the achievement of the ceiling provision till the end of December 1977 are furnished in Appendix 4.14.

4.77 Till December 1977, 4.13 lakh Kudikidappukar filed applications for the purchase of their hutments and the land appurtenant thereto. Decisions on 4.11 lakh (99.5%) cases have already been taken. The number of Kudikiadappu cases pending disposal is only 2061 cases.

4.78 The allowed cases comprised 2.55 lakh (62%) Kudikidappukar, out of whom 2.34 lakhs have been issued certificates of purchase till December 1977. The data on the applications filed by Kudikidappukar are given in Appendix 4.13.

4.79 In addition to the KLR Act, some other legislative measures were also undertaken during the past to solve the agrarian problems prevalent in certain regions of the State. The Thiruppuvaram Payment Abolition Act (1969), and Sree Pandaravaka lands (Vesting and Enfranchisement) Act (1971) were enacted for the abolition of the tenant feudal traces in the agrarian sector in erstwhile Travancore area. The Cochin Kanam Tenancy (Abolition) Act was passed in 1976 for the abolition of the Kanam Tenancy prevalent in the old Cochin area. The other relevant legislations included the Jenmikaram Payment (Abolition) Act (1960), the Sreepadom Lands Enfranchisement Act (1969), Edavagai Right Acquisition Act

(1956) and Pattazhi Devaswom Lands (W&E) Act (1961). These Acts together cover 1.85 lakh cases involving 6.18 lakh tenanted holdings. Out of these, 1.09 lakh cases (59%) have been settled by the end of December 1977.

4.80 Under the Kerala Land Assignment Act, an extent of 4.75 lakh acres has been identified suitable for assignment. Out of this 3.66 lakh acres have been assigned till the end of November 1977. The beneficiaries of this Scheme cover 3.89 lakh families. 76255 families belong to the Scheduled Castes and Tribes and they have been issued 51678 acres (14% of the total puramboke land distributed).

4.81 The puramboke land available for further distribution is estimated at 47213 acres in November 1977. Cannanore accounts for 22390 acres (47%), Idukki 14858 acres (31%), Quilon 4606 acres (10%), Trichur 2602 acres (6%), Trivandrum 1233 acres (3%) and Ernakulam 882 acres (2%).

The various agrarian reforms implemented in Kerala since 1964 cover over 30 lakhs beneficiaries. Those benefited by the KLR Act include 22 lakhs title holders of tenanted holdings, 2.5 lakh Kudikidappukar (hutment dwellers) and 62 thousand assignees of surplus lands who mainly belong to the category of landless labourers. The rest of the beneficiaries comprised assignees of Government puramboke lands, arable forest lands, etc.

4.83 The programme of land reforms in Kerala has led to a phenomenal increase in the number of operational units in the farming sector. Between 1960-61 and 1970-71, the operational units below one hectare, according to the National Sample Surveys increased by 46% while that above 4 hectares decreased by nearly 50%. Similarly the area in the former category increased by 15% and that under the latter category declined by 25%.

4.84 A further impact of the land reform measure has been the welcome trend in the reduction of landless agricultural households in the rural sector of the State. The findings of the National Sample Surveys show that there has been a reduction in the number of landless agricultural households from 31.9% in 1960-61 to 10.2% in 1970-71. The number of absolutely landless agricultural households must be much less now as more land has since been distributed to the rural poor.

4.85 Since January 1970 all tenancy holders including oral tenants have been made owners of their tenancy land. Absentee landlordism has been abolished in toto. Consequently, the tendency to amass land by the rich peasantry is comparatively less today. Land is now directly cultivated by the owner class adopting better land development and modernisation techniques. The agricultural labourers are almost liberated from

their age old serfdom and bondage. They have now their own homesteads and enjoy freedom of work and better bargaining power for security of job and higher wages.

Livestock Development

4.86 Livestock development particularly dairy farming, has come to stay in the economy of Kerala, as an important subsidiary occupation of the farmer, ensuring him additional employment opportunities and income besides improvement in his dietary habits. A long drawn up programme of artificial insemination, which assumed a massive turn since 1973-74 has been in the process of implementation with a view to upgrading the local low yielding non-descript breed by crossing with exotic breeds viz. Brown Swiss and Jersey. The Official estimate of cross-bred stock in April 1977 stood at 5.66 lakhs. More data can be expected on this when the 1977 Livestock Census figures are available. The efforts in upgrading the stock are continued by the Department of Animal Husbandry and Kerala Livestock Development and Milk Marketing Board. During 1976-77, the Animal Husbandry Department carried out 4.77 lakh artificial inseminations as against 4.00 lakhs in the previous year. The K.L.D. & M.M. Board conducted more than 43,000 artificial inseminations in Idukki District during 1976-77. The calves born thereof in Idukki numbered 9270 (21.4% of the number of artificial inseminations).

4.87 Along with the progress of upgrading the stock, other supporting measures like fodder development, provision of cattle feed, improved animal health services are also made available to the cattle breeders. The Dairy Development Department with an organisation of Dairy Farm Instructors, 2 per Block, has taken up extension-cum-demonstration work in the development of fodder. Cultivation of hybrid fodder as an inter crop in coconut gardens has unravelled to the farmers the potentiality of even conceiving a fodder economy vis-a-vis other marginal crops.

4.88 The Indo-Swiss Project (presently merged with the K.L.D.&M.M. Board) has taken up development of high yielding fodder varieties in Idukki district. In 1976-77 fodder cultivation was taken up in the district in 371 hectares. besides organising fodder demonstration plots in 14 hectares Grass slips produced in the Project farms are issued to the farmers free of cost.

4.89 Cross-bred cattle stock requires improved veterinary facilities. The infrastructure for this in 1976-77 comprised 408 Veterinary Hospitals/Dispensaries, 12 Mobile Veterinary Dispensaries, 101 Veterinary Sub Centres/First aid centres and 8 clinical laboratories. In 1976-77 nearly 23 lakh cases of diseases of animals and 3 lakh cases of diseases of poultry were treated in various veterinary institutions in the State. In addition to this, about 14 lakhs of vaccinations and

innoculations were conducted to livestock to check and control diseases. The Anti-Rabic treatment conducted to animals numbered about 16000 during 1976-77.

4.90 There is no reliable estimate available on the level of milk production in Kerala. A milk production survey is being conducted by the Department of Animal Husbandry. The results are yet to be published. However, the official estimate is that the level of milk production in the State has reached 5.10 lakh tonnes in 1976-77 from 4.10 lakh tonnes in 1973-74. The per capita daily availability of milk went up to 58 grams in 1976-77 from 51 grams in 1973-74. The structural change in the stock of milch cows by rearing more and more cross-bred stock accounts for the increase in the supply of milk.

4.91 In some of the I.C.D.P. areas and S.F.D.A. districts marketing of the surplus milk, especially during the flush season, has posed certain problems. These problems are being tackled by settling up chilling plants in important production centres. Dairy Co-operative are organised to channel the surplus milk from the production centres to the chilling plants and from these to the urban and semi-urban markets for final distribution. However, the supplies of milk reaching our markets from the neighbouring States further vitiate the problem of lifting the surplus milk in the rural areas on a regular basis. The cost of production of milk in Tamil Nadu is comparatively cheaper than that in Kerala. A large portion of the cattle feed and the raw materials used in the manufacture of cattle feed have to come from outside Kerala.

4.92 With the formation of the KLD and MM Board the Milk Marketing activities in Trivandrum, Quilon, Alleppey, Ernakulam and Idukki districts were brought under the responsibility of the Board. The quantity of milk procured and distributed by various dairies of the KLD and MM Board during 1975-76 and 1976-77 are given in Table 4.27

TABLE 4.27

Procurement and Distribution of Milk by KLD and MM Board

Dairies	Procurement ('000 Lts)		Distribution ('000 Lts)	
	1975-76	1976-77	1975-76	1976-77
Trivandrum	3817	4603	3646	4661
Ernakulam	2919	4050	2721	3890
Alleppey	907	1208	906	1199

4.93 The KLD and MM Board has set up a regional station at Kulathupuzha during 1976-77. The Centre is provided with a new bull station and semen bank. Planting materials of fodder crops are supplied to the farmers from this station. At the Mattuppatti Training Centre, Veterinary and Agricultural personnel as

well as selected dairy farmers are given training in cattle breeding and fodder production. During 1976-77 164 technicians and officers and 150 farmers were trained from here.

4.94 With a view to developing poultry, 4.19 lakh chicks were distributed during 1976-77 compared to 1.11 lakhs to 1975-76. About 24.64 lakh eggs were produced in the departmental farms during the year in contrast to 17.08 lakhs in the previous year. The estimate of total egg production in the State stood at 1040 millions in 1976-77. Despite the growing competitions from States like Punjab and Hariyana in poultry keeping and marketing of eggs, a part of our production was sent to the regions outside Kerala.

Fisheries

4.95 The fishing industry in Kerala witnessed tardy progress in 1976-77. The total fish production declined heavily from 4.44 lakh tonnes in 1975 to 3.55 lakh tonnes in 1976, registering a decrease of about 20%. This has happened despite an increase in the catches of bulk species like all oil sardines over the previous year. The low catches of cat fish, perches and prawns suggest that the landings of mechanised boats have been comparatively poor during the year. The steep fall in production has led to a drastic reduction in the per capita consumption of fish in Kerala in 1976. From 14.5 Kg. in 1975 it has come down to 10.7 Kg. in 1976. In a bid to streamline the fishermen co-operatives in the State, many of the existing societies have been liquidated. Despite the bleak picture the industry presented in 1976-77, there was the glowing record about the sea food export earnings. From Rs. 67.62 crores in 1975-76 the sea food export earnings from Kerala went up to Rs. 90.12 crores in 1976-77, the increase in export earnings over the year was 33%. The contribution of fisheries to the State income in 1975-76 stood at Rs. 73.69 crores as against Rs. 56.60 crores in 1974-75.

Marine fish production

4.96 The sea fish production in Kerala in 1976 suffered a marked fall. From 4.21 lakh tonnes in 1975, the marine fish production declined to 3.31 lakh tonnes in 1976, the decrease over the year being

22 per cent. The corresponding position at the all India level too countenanced a similar fall during the year, but of a less intense nature. The sea fish production for the country as a whole declined from 14.23 lakh tonnes in 1975 to 13.53 lakh tonnes in 1976 recording 5 per cent decrease over the year. The importance of sea fish catches in Kerala vis-a-vis the All India marine fish production has been more or less steadily falling. From 41% in 1965, the share of Kerala in the marine fish catches shrank to 25 per cent in 1976. The trend is visible from the data furnished in Table 4.28.

TABLE 4.28
Marine Fish Landings
(‘000 tonnes)

Year	Kerala	India	Percentage of Kerala to India
(1)	(2)	(3)	(4)
1965	339	833	41
1970	393	1077	37
1971	445	1161	38
1972	296	980	30
1973	448	1220	37
1974	420	1218	35
1975	421	1423	30
1976	331	1353	25

4.97 The seasonality of fish catches during 1976 was as indicated in Table 4.29.

TABLE 4.29
Seasonality in Fish Catches

Season	Kerala %	India %
(1)	(2)	(3)
January - March	22.1	28.0
April - June	20.1	19.7
July - September	22.2	19.2
October - December	35.6	33.1
Total	100.0	100.0

4.98 The peak landing season extends from October to December. Bulk of the oil sardine catches occur during this quarter of the year.

4.99 The principal marine species of Kerala are given in Appendix 4.15. The broad groupings are as shown in Table 4.30.

TABLE 4.30
Principal Marine Species

Species	Average for 1969-73 ('000 tonnes)	%	1974 ('000 tonnes)	%	1975 ('000 tonnes)	%	1976 ('000 tonnes)	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Oil Sardine	150.8	40.3	102.1	24.3	97.2	23.1	129.9	37.4
2. Mackerel	46.8	12.4	10.3	2.4	14.9	3.5	20.0	6.0
3. Other fishes	132.5	35.3	247.1	58.8	230.7	54.8	152.6	46.2
4. Prawns	45.3	12.0	60.8	14.5	78.0	18.6	34.5	10.4
Total	375.4	100.0	420.3	100.0	420.8	100.0	331.0	100.0

4.100 The landings of oil sardine and mackerel during 1974 to 1976 have been much below the average landings for 1969-73. The phenomenon could be interpreted as a reflection of the cyclic fluctuation of the two fisheries. But compared to 1975, their landings were higher in 1976. The reason for the drastic fall in the total catches in 1976 could be attributed to lower catches of 'other fishes' as well as prawn. The prawn landings are estimated to have declined from 78,000 tonnes in 1975 to 34,500 tonnes in 1976, (about 56% fall in one year). However, the marine exports in 1976-77 comprising mostly prawns (over 90%), remained more or less the same as in the previous year.

Inland Fish Production

4.101 The estimate of inland fish production, according to the Department of Fisheries, has gone up from 23,200 tonnes in 1975-76 to 23,970 tonnes in 1976-77 registering an increase of 3.3% over the year. Of the total inland fish production, the principal species comprised prawns 4,929 tonnes (21%) etroplus 2,880 tonnes (12%) murrels 2,755 tonnes (11%) tilapia 3,430 tonnes (14%), cat fish 2,236 tonnes (9%) Jew fish 2,000 tonnes (8%) and miscellaneous species the rest.

4.102 The share of culture fisheries in the inland fish production has been negligible, less than 1 per cent. The reservoir fisheries covering an area of 6,776 hectares yielded 27 tonnes in 1975-76, registering an average production rate of 4 kg./ha. The State fish farms yielded on an average 230 kg./ha. in 1975-76.

4.103 The State has recorded considerable progress in different fish culture activities, viz., pearl culture, mussel culture, lobster culture, prawn culture and fish culture. The Pearl culture project at Vizhinjam has already made a good beginning in the production of cultured pearls, using indigenous technology. The success achieved by the centre could in the long run lead to setting up pearl culture industry in the State.

4.104 Mussel is an edible shell fish growing in the shallow coastal sea waters with rocky out crops. The edible meat portion forms 30 to 40 per cent of the weight of the animal. The shell is used for conversion into lime. The mussel meat contains about 13% protein, 8% glucogen and 2.4% fat. The shallow seas of Vizhinjam, Tellicherry and Cannanore provide natural facilities for mussel culture in Kerala. Based on the experiments conducted by the CMFRI, the State Fisheries Department has set up a pilot mussel culture project at Vizhinjam in 1975 to evolve standardised pattern for the profitable culture of mussels. In advanced countries like Spain, Netherlands and France mussel culture has yielded as high as 300 tonnes/ha.

The Vizhinjam mussel culture project is showing promising results. Under local conditions, the yield is expected to be of the order of 150 tonnes/ha.

4.105 A Lobster Research Station has been set up in the State at Vizhinjam towards the end of 1974. The main objectives of the Station are extensive breeding experiments of lobster stock and replenishment of lobster stock with laboratory reared larvae.

4.106 Another major break through in the culture fisheries has been the spawning of commercial prawns under controlled conditions and the development of the techniques of their culture from egg to marketable size in the Narakkal Prawn Isre Farm by the CMFRI. The techniques can easily be adapted for large scale culture of prawns in the vast stretches of brackish waters of Kerala by the farmers and fishermen with an annual yield of 1000 kg./ha. The culture of milk fish 'Chanos Chanos' in the brackish waters has yielded 450-800 kg./ha./annum. Composite fish culture techniques in fresh water ponds has recorded production rate of 6 tonnes per hectare/annum.

Exports

4.107 The sea food export earnings touched an all time record in 1976-77. At the national level, the exports of fish products in terms of value went up from Rs. 124.53 crores in 1975-76 to Rs. 189.12 cores in 1976-77, registering an increase of 51.87 per cent over the year. In terms of quantity, the increase was from 54,463 tonnes to 66,750 tonnes (22.56 per cent). For Kerala, while the exports in terms of quantity registered a marginal decrease from 31,683 tonnes to 31,595 tonnes, the value of exports shot up from Rs. 67.62 crores to R. 90.12 crores, registering a marked increase of 33.27 per cent. The average unit price realised in the State stood at Rs. 28.52 per kg. in 1976-77 compared, to Rs. 21.34 per kg. in 1975-76.

4.108 In 1976-77, at the all-India level there were 595 sea food exporting firms registered with the MPEDA. The data compiled by the MPEDA show that 62% of the firms had together accounted for only a little over 5% of the total exports. They exported on an average about 10 tonnes/firm in 1976-77. The large firms (having exports of 300 tonnes and above/annum) formed 11% of the total, controlling as much as 61% of the cargo. The data are shown in Table 4.31. The predominance of the tiny firms on the export front necessitate measures to safeguard their interests in the industry. Individually they have little control in the marketing of their products abroad, nor do they have the economic power to hold back the products in times of crisis.

TABLE 4.31

Distribution of Exporters based on volume of exports India (1976-77)

Size of exports	Number of firms actual %	%	Volume of exports %	Value of exports %	Average FOB price/kg. (Rs.)
(1)	(2)	(3)	(4)	(5)	(5)
1. Less than 50 tonnes	368	61.85	5.35	5.46	28.92
2. 50-100 tonnes	56	9.41	6.07	6.26	29.92
3. 100-150 tonnes	35	5.88	6.35	7.95	35.47
4. 150-200 tonnes	34	5.71	7.93	8.55	30.55
5. 200-250 tonnes	26	4.37	8.52	7.22	24.01
6. 250-300 tonnes	13	2.19	4.99	6.24	35.43
7. 300 and above tonnes	63	10.59	60.79	58.32	27.18
Total	595	100.00	100.00	100.00	28.92

4.109 The low average prices of exports of classes 5 and 7 are presumably due to the predominance of fish products handled by them. For frozen shrimp products alone, the export price realised by the big exporters must have been high. The Kerala Fisheries Corporation, which exported 471 lakh tonnes of frozen products in 1976-77 fetched an average FOB price of Rs. 43.60/kg.

Kerala Fisheries Corporation

4.110 The Kerala Fisheries Corporation operated two 72 ft. trawlers during 1976-77. Since February 1977, the trawlers had their operations from Vizag. The landings comprised 62 tonnes of prawns and 72 tonnes of fish valued at Rs. 6.92 lakhs. The Corporation importing 2 more trawlers of 76 ft. size from Mexico. The vessels were taken delivery of at Mexico in December 1977. The Corporation's exports comprised 471 tonnes frozen products valued at Rs. 205.35 lakhs during 1976-77 as against 348 tonnes valued at Rs. 71.75 lakhs in the previous year.

Fishermen Co-operatives

4.111 The fishermen co-operatives in the State have been faring badly in the past despite all the capital and technical assistance rendered by Government. In June 1975 there were 1057 fishermen co-operatives in Kerala which comprised 189 credit societies, 849 MUCS, 18 marketing societies and 1 federation. These societies were provided with a total working capital loan of Rs. 38.18 lakhs and share capital loan of Rs. 1.10 lakhs. The managerial subsidy amounted to Rs. 15.69 lakhs. 487 of the societies were supplied with 805 boats. But the position as on 30-6-1975 showed that 353 societies have been working on heavy losses. A majority of the fishermen co-operatives, according to the Report of the Resuscitative Committee for Fishery Co-operatives (1996), are not a economically viable and

have not succeeded in improving the living conditions of the traditional fishermen.

4.112 With a view to streamlining fishermen co-operatives, an attempt is being made to identify the societies which could be rejuvenated; those beyond resurrection are to be liquidated. During 1976-77, 133 fishermen societies were liquidated in the State, out of which 21 were credit societies and 112 MUCS. Two new MUCS were registered during the year. At the end of 1976-77 there were 768 Fishermen cooperatives in the State as against 899 in 1975-76. The credit societies declined from 153 in 1975-76 to 132 in 1976-77 and the MUCS from 728 to 618. The membership of the MUCS in 1976-77 was 55,000 indicating that nearly half of the active fishermen remained outside the co-operative sector. The net increase in the share capital of the regional fish marketing societies was the result of the additional share capital participation made for the Parappanangadi Project. The number, membership and paid up share capital of the fishermen cooperatives are shown in Appendix 4.16. The loans and grants issued to the societies during 1976-77 amounted to Rs. 17.27 lakhs. Almost the entire amount (Rs. 17.20 lakhs) was allocated for the working of the fish marketing societies at Parappanangadi and Vypeen.

4.113 The ARDC sponsored fisheries project at Pudiappa operated 50 mechanised boats during 1976-77 and landed catches worth Rs. 33.15 lakhs. On an average the boats fished for 132 days and registered a gross revenue of Rs. 66300. The catch values of 2 boats exceeded Rs. 1 lakh per boat. The Vypeen Fishery Project after a long spell of inaction got the repair works of their boats completed and fishing commenced on an experimental basis from the second week of March 1977. Unless close supervision is enforced in the grading of principal species as well as auctioning of

them in the right manner, the marketing societies will not be able to achieve their desired objectives of eliminating exploitation of fishermen by the middlemen.

4.114 The experience of the Marianad Malsya Ulpadaka Cooperative Society, Puthen Curichy near Trivandrum is an eye opener to the fishermen co-operatives in Kerala. The society with 137 members and a share capital of Rs. 3820 transacted fish worth Rs. 6.65 lakh and fishing requisites valued at Rs. 59000 in 1975-76. The society has helped several of its members to get loans from nationalised banks on a group guarantee basis. It patronises a nylon net fabrication centre promotes saving habits among members and distributes essential consumer articles to members and others. Cooperative education class and seminars are organised periodically with a view to building up leadership from within the fishermen rank and file. Dedicated leadership, and the felt-in-need of the fishermen for united action against the exploitation by the middlemen could be reckoned as the contributing factors for the dynamic outlook of Marianad.

4.115 According to the Population Census Records, the number of fishermen in Kerala increased from 17.72 thousand in 1961 to 123.73 thousand in 1971, registering an over all growth of 26.62 per cent during the decade. The compound growth rate per annum is worked out at 2.4 per cent. The fishermen engaged in inland fishing including collection of shells, etc. comprised 36000 (37%) in 1961. But by 1971, their number declined to 24000 (19%), indicating a possible migration of workers from the inland sector to the marine sector.

4.116 Based on the past trend, the number of active fishermen in Kerala in 1976 is estimated as 1,39,000. The fishing craft comprised 2640 mechanised boats and 30600 nonmechanised units. Nearly 90 per cent of the fishermen depend on the traditional fishing methods and their living conditions continue to be low as in the past. Reclamation of Kayal lands as well as indiscriminate fishing and bunding in the backwaters have affected adversely the socio-economic conditions of the fishermen dependent upon inland capture fisheries.

Forests

4.117 The forestry sector evinced appreciable improvement in 1976-77. The overall revenue went up from Rs. 21.92 crores to Rs. 26.18 crores, registering an increase of Rs. 4.26 crores (19 per cent) over the year. The increases in the out-turn of forest produce, barring to the exception of timber round logs, contributed to this uptrend. The employment opportunities offered by our forests also gained momentum.

Between 1971 and 1976, the number of forest based workers is estimated to have gone up from 21,000 to 53,000. The activities like raising of new plantations, improved logging operations better collection of minor forest produce, etc., have accelerated the pace of employment opportunities in the forestry sector. The regional income from the forestry and logging operations too has been rising. From Rs. 24.89 crores in 1974-75 it has gone upto Rs. 33.06 crores in 1975-76, registering an increase of 33 per cent over the year.

4.118 Despite the favourable trend in forest economy, there has been a steady run on the forest land in recent years, resulting in the denudation of some of our most productive forests. A number of factors like diversion of forest land for agriculture, river valley projects, industrial purposes and roads besides private encroachment lead to the depletion of the forest. Between 1951-52 and 1972-73, Kerala has lost (1150 sq. k.m.) 10% of her forests as against 41 per cent at the national level. By 1976, the loss estimated was 1640 sq. k.m. reducing the actual available area under forests to 9480 sq. km. (about 23% of the geographical area of the State). The distribution of this area by type of forests is given in Table 4.32.

TABLE 4.32

Distribution of Forest Area by Type of Forests

Forest Type	Area (Sq. km.)	Percentage
(1)	(2)	(3)
1. Tropical evergreen and semi evergreen	3648	38.5
2. Moist Deciduous forests	2207	23.3
3. Dry Deciduous forests	112	1.2
4. Pure Reeds	150	1.6
5. Montane Temperate Shola evergreen	14	0.1
6. Grass lands	98	1.0
7. Plantations	1311	13.8
8. Vested forests	1940	20.5
Total	9480	100.0

4.119 Of the vested forests, 540 sq. km. are earmarked as arable land available for further distribution. When this area too is assigned for agricultural purposes, the net area under forests will be restricted to about 8940 sq. k.m. The estimate of forest area in 1976-77 is placed at 9353 sq. km. The division-wise distribution is furnished in Appendix 4.17.

4.120 The area under plantations comprised a little over 1.30 lakh ha. in 1976-77 as against 1.27 ha. in 1975-76. The important forest plantations of Kerala are shown in Table 4.33.

TABLE 4.33
Principal Forest Plantations of Kerala

Species	(Area in Hectares)		
	1975-76	1976-77	Increase/ Decrease over the year
(1)	(2)	(3)	(4)
1. Teak	63824	65470	1646
2. Eucalyptus	32090	32049	(41)
3. Soft wood	20021	20414	393
4. Cashew	2995	3482	487
5. Rubber	1190	1824	634
6. Junglewood (Hardwood)	1533	1571	38
7. Mixed plantations	1094	1449	55
8. Fuelwood	555	715	160
9. Pine	404	429	25
10. Wattle	532	571	39
11. Rosewood	32	59	27
12. Mahagony	143	141	(2)
13. Bamboo	930	985	55
14. Others	1200	1285	85
Total	126543	130144	3601

(Figures in brackets are decreases)

4.121 The forest plantations constituted about 14 per cent of the total area under forests in the State in

TABLE 4.34
Out-turn of Forest Produce

Item	Unit	1975-76	1976-77	Increase/Decrease over the year	
				Actual	Percentage
(1)	(2)	(3)	(4)	(5)	(6)
1. Timber round logs	'000 cum.	645	541	104	(16)
2. Timber round poles	'000 Nos.	1159	1416	257	22
3. Fire wood	'000 tonnes	219	265	46	21
4. Reeds	'000 tonnes	16	60	44	275
5. Rattans	'000 Nos.	244	165	(79)	(32)
6. Bamboos	'000 Nos.	515	1349	832	456

Figures in brackets show decreases.

The production of timber round logs has been showing a fluctuating trend. During the last one decade the out turn of this item varied between 483000 m³ (1968-69) and 645000 m³ (1975-76). In recent years, the production of timber round poles has been shooting up, mainly as a result of the forest plantations raised in early years. The accounting of the produce of the vested forests also partly subscribes to the phenomenal growth in the out-turn of forest produces. The relevant data are given in Appendix 4.19.

4.124 The utilisation of timber from all sources (forests as well as private lands) for industrial purposes is estimated at 26 per cent in Kerala as against 9 per cent for the country as a whole. Developed Nations like USA, Canada, Japan, Sweden and West Germany

1976-77. The principal plantations are teak 65470 ha. (50.3%) eucalyptus 32049 ha. (24.6%) softwood 20414 ha. (15.7%). Plantations like cashew, rubber, junglewood, mixed plantations, fuelwood and bamboos are also gaining growing importance. Eucalyptus had a set back in area in 1976-77. The incidence of pest and fungus attack has been responsible for this. It has to a considerable extent, hampered the growth of eucalyptus plantations in Kerala.

4.122 According to an assessment by the Department of Forest in 1977, about 3000 sq. km. could be converted into forest plantations. Already over 1300 sq. km. have been planted with different species of trees. The balance area available for conversion is 1700 sq. km. Out of this, about 445 sq. km. of moist deciduous forests are being taken up by the Kerala Forest Development Corporation for conversion into eucalyptus plantations over a ten year period ending by 1985 at the rate of 4450 ha/annum.

4.123 The out-turn of forest produce in 1976-77 was comparatively higher than that in the previous year, excepting in some of the items like timber round logs and rattans. The data on the outturn of forest produce are presented to Table 4.34.

use more than 90 per cent of their timber for industrial purposes. The rest of our timber is consumed as firewood. Eventhough keroseneoil and cooking gas are becoming more and more popular among the upper classes, firewood continues to be the most important fuel in Kerala.

4.125 In order to supplement the timber resources of the forest for meeting the growing demand of the wood based industries as well as fuel wood requirements, social forestry is being taken up in a big way. It includes raising of trees on farm lands, government puramboke lands, waste lands and on lands along the sides of roads and canals. Between 1961 and 1974, 3180 ha. of farm forestry cum fuelwood plantations were raised in Kerala.

4.126 The forest produce in 1976-77 yielded a gross returns of Rs. 25.09 crores as against Rs. 20.44 crores in 1975-76, the increase in gross revenue over the year being Rs. 4.65 crores (23%). The details are as shown in Table 4.35.

TABLE 4.35

Sale Proceeds of Timber and other Produce

Item	1975-76	1976-77	Increase/Decrease over the year	
			(Rs. 000)	
			Actual	%
(1)	(2)	(3)	(4)	(5)
1. Timber	183933	219581	35648	19
2. Firewood and charcoal	3813	10264	6451	17
3. Livestock	483	417	(66)	(14)
4. Other items	16197	20624	4427	27
Total	204426	250886	46460	100.00

Figures in brackets show decreases

Along with other receipts and refunds, the aggregate net revenue from forests in 1976-77 reached Rs. 26.18 crores, registering an improvement of Rs. 4.26 crores over the previous year (19%).

4.127 The Kerala Forest Development Corporation sponsored for raising plantations of pulp wood and other raw material required for wood based

industries, could achieve only tardy progress in the past. During 1975-76 on account of certain organisational difficulties in getting area cleared the Corporation could raise only 534 ha. of pulp wood plantations. In 1976-77, an additional area comprising 2000 ha. of pulp wood plantations and 190 ha. of softwood plantations was raised by the Corporation.

4.128 The Kerala Forest Research Institute set up in 1975-76 has started functioning. The Institute has taken up a special study on a family of important timber trees found in South Asia. The study is aided by the Food and Agricultural Organisation. The Institute has also undertaken a survey for plywood industry in Kerala and Karnataka besides doing applied research in problems connected with forestry in Kerala. A sub centre at Thekkady for wild life research and another sub centre for work on teak plantations at Nilambur are functioning under the Institute.

4.129 With a view to identifying important forest based medicinal plants, and standardising techniques of cultivation as well as utilisation of these medicinal herbs the government in 1976 took over a private organisation and registered it as corporation known the Pharmaceutical Corporation (Indian Medicine) Kerala Ltd. The scheme also aims at organising tribal cooperatives for the collection of medicinal plants as well as elimination of middlemen and ensuring fair price for the produce collected by the tribal societies. Some of the medicinal plants can be grown as good cover crops in teak and eucalyptus plantations.

IRRIGATION AND POWER

Irrigation

In the year 1976-77 irrigation facilities were extended to 17,622 hectares of land through major, medium and minor irrigation projects as against 12,900 hectares during 1975-76. This has resulted in irrigating crops over a gross area of 36,567 hectares in 1976-77 as against 25,100 hectares, during 1975-76. Till the end of 1976-77, the net area brought under irrigation is 2,28,216 hectares corresponding to a gross area of 3,80,383 hectares. The total investment during the year on irrigation is Rs. 2405.55 lakhs.

Major and Medium Irrigation Projects

5.2 The physical achievement under major and medium irrigation projects in the year is 7,550 hectares (net) and 22,892 hectares (gross). The amount invested is Rs. 2165.27 lakhs.

5.3 Some extension works were carried out during the year on completed projects. In the Neyyar Irrigation Project an additional net area of 366 hectares (732 ha. gross area) was brought under irrigation by extension works. The total amount spent on extension of completed projects is Rs. 22.60 lakhs during the year.

5.4 Work on the ten continuing projects, including the four new projects taken up during the Fifth Five Year Plan, (Moovattupuzha, Chimoni, Attappadi and Karapuzha Projects), have recorded progress. More area was added to the ayacut of the four projects — Pamba, Periyar Valley, Chitturpuzha and Kuttiyad:— which were partially commissioned earlier. The progress of works in respect of Kanjirapuzha and Pazhassi projects will result in partial commissioning of the projects during 1978. Two new projects— Idamalayar and Meenachil were started during the year. Only preliminary works on these two projects could be initiated, and the detailed investigation is yet to be completed.

5.5 The total investment in this year on continuing projects taken up during the earlier plan periods is Rs. 2018.37 lakhs. For the six projects taken up during the Fifth Plan period an amount of Rs. 91.61 lakhs has been invested during 1976-77. The amount spent on investigation and research is only Rs. 32.69 lakhs, resulting in delayed start of construction of works. 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—Achievements during 1976-77

Sl.No.	Name of Project	Command area (in ha.)		Physical achievements during 1976-77 (in ha.)		Cumulative total at the end of 1976-77 (in ha)		Expenditure during 1976-77 in Rs. lakhs
		Net	Gross	Net	Gross	Net	Gross	
Completed Projects								
1.	Neyyar	..	..	366	732	8538	17076	22.60
2.	Other completed projects	..	..	..	..	70777	130065	
On-going Projects								
1.	Kallada	52610	105220	..	..	..	..	315.99
2.	Pamba	17806	41683	2355	6900	3334	9897	424.54
3.	Periyar valley	32800	85600	1771	7469	18794	45515	294.50
4.	Chitturpuzha	17287	32250	1212	2253	12430	23253	129.80
5.	Kanjirapuzha	9720	21868	..	..	..	..	148.44
6.	Kuttiady	14569	31161	1846	5538	4870	14610	308.83
7.	Pazhassi	16189	32374	..	..	..	..	316.24
8.	Muvattupuzha	17400	52200	..	..	..	..	44.48
9.	Chimoni	19000	26000	..	..	..	..	18.43
10.	Attappadi	4923	6200	..	..	..	..	22.68
11.	Karappzha	4650	9300	..	..	..	..	5.58
New Projects								
1.	Meenachil	4000	12000	..	..	..	..	0.0
2.	Idamalayar	20200	32400	..	..	..	..	0.4
	Research & investigation	..	..	..	..	..	..	32.69
	Total			7550	22892	118743	240956	2405.27

Minor Irrigation

5.6 During 1976-77 the additional net area irrigated under minor irrigation works is 10,072 ha. corresponding to a gross area of 13,675 hectares. This is 57 per cent of the net area and 37 per cent of the gross area brought under irrigation in 1976-77. As of the end of the year 1976-77, the net area brought under

minor irrigation is 1,09,473 hectares and the gross area is 1,40,027 hectares. The amount invested during the year in minor irrigation schemes is Rs. 240.28 lakhs. The details of the achievements under the various classes of Minor Irrigation schemes is given Table 5.2. The district-wise details of the physical achievements is given in Appendix 5.1.

TABLE 5.2

Physical Achievements in Minor Irrigation

Sl.No.	Type of Minor Irrigation Scheme	Achievements in ha.		Total at the end of 1976-77		Amount invested (Rs. in lakhs)
		Net	Gross	Net	Gross	
1.	Minor Irrigation Class I	1834	2666	14181	18322	53.89
2.	Minor Irrigation Class II	3693	5869	62261	73462	53.64
3.	Lift Irrigation	568	702	22442	36364	67.19
4.	Others (I. P. D., DRF etc.)	3977	4438	10584	11879	65.56
	Total	10072	13675	109468	138027	240.28

5.7 Apart from these schemes the Department of Agriculture, the Small Farmers Development Agency, etc., assisted in bringing additional area under irrigation through supply of pumpsets. Also work has been initiated to assess the ground water potential and utilise the same for irrigation.

Flood Control and Anti-sea Erosion

5.8 The physical target achieved till the end of 1975-76 in flood control is the construction of 33.408 km. of embankment and 4.180 km. of drainage

channel benefiting an area of 9829.29 hectares of land. During 1976-77, 10.59 km. of embankment and 1.67 of drainage channels were constructed to benefit an area of 780 hectares of land, with an investment of Rs. 42.04 lakhs.

5.9 Till the end of 1975-76 a coast line of 160.453 km. could be protected. In 1976-77 an additional length of 12.418 km. has been protected at a cost of Rs. 291.62 lakhs. The achievements in flood control, anti-sea erosion, etc., are given in Table 5.3.

TABLE 5.3

Flood Control and Anti-Sea Erosion

S.No.	Classification of the Scheme	Area benefited in km.	Amount invested Rs. in lakhs
1.	Anti-Sea Erosion	12.418	291.62
2.	Flood Control*		42.04
3.	I. W. T. (State)		9.53
4.	I. W. T. (Central)		58.92
5.	Thanneermukkom		15.62
6.	Others (Kattampally Project)		1.85
	Total		419.58

*Under Flood Control sector 10.59 km. of embankment, 1.67 km. of drainage channels and 1 village and 7 towns were protected to benefit an area of 780 hectares of land.

Power

5.10 The installed generation capacity of Kerala's power system increased from 28.5 MW in 1950-51 to 1011.5 MW in 1976-77. The major projects contributing to this generation capacity are Idukki Stage I (390 MW) and Sabarigiri (300 MW). The State's power system has an energy potential of 4730 MKWH at present. Power tapped from hydel resources in the

State has been found to be cheaper compared to many other States in India. The quantum of electrical energy generated in Kerala increased from 591 MKWH in 1960-61 to 3151 MKWH in 1976-77. This indicates substantial expansion in the generating capacity of Kerala's power system. The energy consumption within the State during 1976-77 was 2137 million units. The internal sales loss is 20.3 per cent.

A total quantity of 543 MKWH has been sold [outside the State and the loss has been roughly 3 per cent. The power generation capacities of the various power projects in the State and the actual generation of power in 1976-77 are indicated in Table 5.4

TABLE 5.4
Power Projects in Kerala

Sl. No.	Name of Project	Installed capacity (M.W.)	Units generated (M.K.W.H.) 1976-77
1.	Pallivasal	37.5	184.8
2.	Sengulam	48.0	116.5
3.	Neriamangalam	45.0	209.4
4.	Panniar	30.0	39.4
5.	Peringalkuthu	32.0	200.2
6.	Sholayar	54.0	161.0
7.	Sabarigiri	300.0	1066.8
8.	Kuttiadi	75.0	182.2
9.	Idukki (Stage I)	390.0	990.6
Total		1011.5	3150.9

5.11 The total quantity of power generated in the State rose from 2784 MKWH in 1975-76 to 3151 MKWH in 1976-77. The per capita consumption of electrical energy in 1976-77 was 88.4 KWH an increase of 2.6 KWH compared to 1975-76. Though per capita consumption of energy is increasing over the years the State's average is behind that of the all India average of 109.95 KWH. Supply of electricity could be extended to ten villages only in 1976-77 as against 20 in 1975-76. The total number of villages in the State where electricity has been made available at the end of 1976-77 was 1212. The remaining number of villages to be supplied with electricity is 56.

5.12 The revenue receipts of the State Electricity Board through sale of energy was Rs. 40.17 crores in 1976-77 as against Rs. 29.81 crores in the previous year. The net surplus available for payment of interest on loans received from the State Government and other financial institutions came to Rs. 11.64 crores after meeting depreciation and other expenses as compared to a net surplus of Rs. 1.88 crores in 1975-76 (See Appendix 5.2). But during 1976-77 a sum of Rs. 3.26 crores has been released by the State Government towards subsidy for loss incurred in the Boards rural electrification works. The financial working of the Board for the year 1976-77 resulted in a deficit of Rs. 3.24 crores.

5.13 The capital investment of the Electricity Board at the end of 1976-77 stood at Rs. 308.09 crores as against Rs. 281.85 crores at the end of 1975-76. The loans outstanding during the year increased to Rs. 272.77 crores from Rs. 253.73 crores in 1975-76 and the loans repaid during the year amounted to Rs. 3.85 crores as against Rs. 4.67 crores in the previous year. The total amount of interest payable during 1976-77 was Rs. 16.72 crores and the interest available for repayment during the year was Rs. 13.48 crores as against Rs. 5.68 crores in 1975-76.

5.14 Out of the total quantity of energy consumed in the State in 1976-77 about 73 percent has been for industrial purposes. Extra high tension energy required for industry alone accounted for 54 percent. Industry contributes to 47 percent of the revenue realised by the Electricity Board (See Appendix 5.3). Though domestic consumers who form 70 percent of the total consumers account for only 10 percent of the total power consumed, nearly 19 per cent of the revenue is collected from this class. (See Table 5.5).

TABLE 5.5
Electrical Energy Consumed and Revenue Realised (1976-77)

Sl. No.	Category	No. of consumers	% to total	Energy consumed		Revenue collected	
				MKWH.	% to total	Rs. crores	% to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Industrial high voltage and E.H.T. and low and medium voltage	29,507	3	1549	73	13.58	47
2.	Domestic lights and fans, heat and small power	6,93,335	70	223	10	5.37	19
3.	Commercial lights and fans, heat and small power	2,12,717	21	120	6	4.74	17
4.	Others (excluding export)	54,988	6	788	11	11.63	17
Total		9,90,547	100	2137	100	28.53	100

Note: The revenue realised through export of 543 M.K.W.H. was Rs. 6.79 crores. These figures are not included in the Table

5.15 The major projects under implementation in 1976-77 were Idukki Stage I, Idukki Stage III, Idamalayar, Sabarigiri Augmentation and Silent Valley. As for Idukki Stage I, most of the works are over except some completion works. In 1976-77 an outlay of Rs. 3.5 crores was provided for Idamalayar scheme and with this a major start on the scheme could be achieved. Regarding Idukki Stage III, major works could be started only from 1976-77. Possession of land for most of the work-sites could be obtained only by the end of the year. Preliminary works on Sabarigiri Augmentation scheme were commenced. During 1976-77 a sum of Rs. 14.71 crores was expended for generation schemes. The works relating to Idukki Stage III, Sabarigiri Augmentation and Idamalayar are progressing well. The Silent Valley Project, however, is lagging behind owing to paucity of funds and objections raised on ecological grounds. It may be mentioned that the State Committee on Ecological Problems has given the green signal to the project provided it would cause only the minimum damage to the forest area.

5.16 A total of 80,167 service connections were provided during 1976-77 as against a target of 40,000. The number of pumpsets energised in the State at the end of March 1977 was 53,148. The district-wise distribution of pumpsets energised in Kerala is given in Table 5.6.

TABLE 5.6

District	No. of Pumpsets energised as on	
	31-3-1976	31-3-1977
Trivandrum	280	424
Quilon	335	409
Kottayam	920	1100
Idukki	450	553
Alleppey	2519	2582
Ernakulam	14822	15898
Trichur	19623	22141
Malappuram	2357	2639
Palghat	4759	5490
Kozhikode	339	428
Cannanore	1121	1484
Total	47525	53148

5.17 Though the targets for service connections have been overrun during 1976-77 the number of applications for connections pending is also increasing rapidly. This calls for stepping up the financial allocations for distribution and rural electrification schemes. Even at the end of the first six months of 1977-78 the expenditure for distribution and rural electrification stood at Rs. 5.43 crores against a plan outlay of Rs. 5.15 crores for the whole year. While fixing the plan outlay for distribution for 1977-78 it was anticipated that an amount of Rs. 5 crores will be collected by rural debentures. An amount of Rs. 62 lakhs has been collected through rural debentures.

CHAPTER 6 INDUSTRY

An Overview.

The overall economic performance of the Indian economy during 1976-77 was modest and showed mixed trends in various sectors. Industrial production however recorded an impressive growth rate of 10.1 per cent, the highest annual growth rate in the last decade, as compared with an increase of 6.1 per cent in the preceding year. The index of industrial production (1970=100) stood at 151.2 in March 1977 as against 139.5 in March 1976. Within the manufacturing sector all groups recorded increase in their outputs except for cotton textiles, jute goods and leather products. Cotton textiles which account for more than one fifth of the manufacturing sector have been adversely affected by consumer resistance against their continued high prices. Among the industries that recorded high growth rate during the year were phosphatic fertilizers, beverages, auto-rickshaws, cars, scooters, transport equipment, chemical products, basic metal industries and cement. Some sub sectors such as salt, tanned hides, synthetic rubber, viscose tyre cord, CI. spun pipes, electrical steel sheets, stationery, paper machinery, power tillers and diesel engines recorded output declines during 1976-77. The small scale sector is reported to have fared even better. The production in this sector is estimated to have gone up by 18 per cent in 1976-77 compared to 15 per cent in 1975-76. If the output of the small scale sector is also included, the overall rate of growth of industrial production during 1976-77 would be higher than 10 percent noted for the organised sector. But this outstanding performance of the industries sector also revealed some of the weaknesses in the industrial structure of the country. Domestic demand was slack and inventories of finished goods increased though the problem was partially mitigated in respect of some industries like iron, steel etc., which managed to export this output.

6.2 For the last twenty years, the Government policy in the sphere of industry has been governed by the Industrial Policy Resolution of 1956. Some of the elements of this Resolution in regard to pattern of industrial development still hold valid, but the results of actual policies in the industrial field have not been up to expectations. The incidence of industrial sickness has become widespread, the pattern of industrial costs and prices has tended to be distorted, and the dispersal of industrial activity away from urban areas has been slow. The newly propounded industrial policy of the Central Government (December 1977) is mainly directed towards removing these distortions of the past.

6.3 The five major items of this new policy are the maximisation of production of consumer goods, optimum utilisation of human and material resources, restriction of monopolies and curbing of concentration of economic power, speedy development of employment-oriented industries and making industry responsive to social needs. In the new industrial policy, small industries have been accorded a significant place as a means of achieving decentralised growth. In order to secure for the small industry sector, a fair share of manufacturing capacity and marketing, the list of industries reserved exclusively for this sector has been enlarged from 180 to 504. Another important aspect of the new policy is the demarcation of tiny industries in rural areas, and the promotion of such industries by the setting up of industrial centres.

6.4 The fairly good performance of the industrial sector at the all India level had its favourable impact in Kerala also. The situation in the industrial front is devoid of any serious bottlenecks. Power shortage has not cramped industrial production. Availability of raw materials, though not adequate to meet the requirements of certain industries, was comparatively satisfactory. Situation in the labour front has been quite normal during 1976-77. These factors contributed better utilisation of industrial capacity and higher production in the State's industries. A significant increase has been registered in the working factories of the State.

6.5 The number of registered working factories in the State increased from 6317 to 6921 during 1976. The rate of increase of working factories has been considerably high compared to the previous year. The average daily employment in all the working factories together was 2.81 lakhs as against 2.64 lakhs at the end of 1975. There were 1505 joint stock companies in the State on 31-3-1977 compared to 1430 companies as on 31-3-1976. Of these 448 were public limited companies.

6.6 The public sector continued to play an important role in the development of industries in the State. The Kerala State Industrial Enterprises, the Holding Company for six Government-owned companies, is engaged in the programmes relating to revitalisation of its subsidiaries. However, all except the Kerala State Drugs and Pharmaceuticals sustained losses during 1976-77. The Holding Company on its own initiative has formed a new company, the Kerala State Detergent and Chemicals at Malappuram. It has also been entrusted with the management of Super Clays and Minerals Mining Company (Private) Ltd.

Among the other Government-owned industries the Kerala Premo Pipe Factory and the Kerala Minerals and Metals Ltd. had a much better showing in 1976-77 compared to the previous year. While the Premo Pipe Factory managed to make a profit of Rs. 5.83 lakhs, Kerala Minerals and Metals Limited ended up with a record profit of Rs. 30.77 lakhs. Of the eight Government majority concerns, the companies which have increased their paid up capital were Travancore Titanium Products, Travancore Cochin Chemicals, Transformers and Electricals, United Electrical Industries and Chalakudy Potteries. Among the concerns in this group the Travancore Titanium Products, Traco Cable Company and Transformers and Electricals, Kerala are running at a profit. These companies among themselves earned a net profit of nearly Rs. 2 crores of which the share of Travancore Titanium product is Rs. 1 crore. However, the performance of other companies under the group leaves much to be desired. The Travancore Cochin Chemicals incurred a loss of Rs. 2.67 crores (as against Rs. 1.34 crores in the previous year) due mainly to slump in caustic soda consuming industries, severe competition and emergence of cheap substitutes. Pallathara Bricks and Chalakudy Potteries being not viable units are incurring losses for the last several years.

6.7 The Kerala State Industrial Development Corporation is a premier organisation engaged in the promotion of large and medium industries in Kerala. Apart from financial assistance the Corporation provides various other forms of assistance to industrial units. It has rendered share capital assistance to 36 companies and loan assistance to 27 companies at the close of 1976-77. The Central Government has notified this Corporation as a financial institution eligible for re-finance under the Industrial Development Bank of India Act.

6.8 The Kerala State Electronics Development Corporation, during its short span of working of four years, was able to establish 12 companies in different parts of the State. The main items produced by this Corporation in 1976-77 included television receivers, electronic calculators and industrial electronic equipments. Of the 12 subsidiaries, 6 have already started production. The other 6 companies, viz., Keltron Component Complex, Keltron Magnetics, Keltron Resistors, Dielecto Magnetics, Keltron Power Devices and Keltron Rectifiers are at various stages of implementation. These companies are expected to commence production during the close of 1978.

6.9 Of the Government of India Companies in the State, Hindustan Insecticides, Modern Bakeries, Hindustan Machine Tools, Indian Rare Earths, Hindustan Latex and Instrumentation Limited are running on

a profit while Cochin Refineries and FACT continue to incur losses. The Cochin Refineries was functioning at far below its capacity owing to non availability of crude in adequate quantities. The low utilisation of the production capacity of the Cochin Phase-I Project, the imbalance in the debt equity ratio of the company and the sale of ammonium sulphate at the uneconomic statutory price are reported to be the major reasons for losses by the FACT. The ship building activities of the Cochin Shipyard are progressing satisfactorily and the major portion of the work relating to the first bulk carrier has been completed. The construction activities relating to the Velloor Newsprint Factory are progressing and it is expected that the unit will start production by the middle of 1979.

6.10 The State continues to make concerted attempts at the reorganisation of traditional industries like Coir, Cashew, Handloom, Beedi and Bricks and Tiles which account for a large volume of employment. The Coir Development Scheme is being implemented with the assistance of Government of India. The present programme under the Coir Development Scheme aims at restructuring Coir Cooperative Societies into production-cum-sale societies. The Co-operatives have helped not only to minimise fluctuations in the market but also to provide higher wages to coir workers. Non-availability of raw nuts continues to be the major problem facing cashew industry. The import of raw nuts is steadily declining and in 1976-77 reached its lowest level. The State, is therefore, fully alive to the necessity of increasing indigenous production of raw nuts. Under handloom development the State has been sanctioned two intensive development projects costing Rs. 185 lakhs each and an export production project costing Rs. 40 lakhs.

6.11 The number of newly registered small scale units increased by 1515 during 1976-77, thus bringing the total number of small scale units registered with the Industries Development Commissionerate to 10,946. The Industries Development Commissionerate while implementing its massive mini industrial development programme has encountered certain draw backs and from the experience gained has prepared fresh guidelines for the smooth and speedy working of this programme. The newly formed Small Industries Development and Employment Corporation is rendering a package of integrated services to small scale entrepreneurs through its twelve functional divisions.

Joint Stock Companies.

6.12 The total number of joint stock companies in Kerala was 1430 as on 31-3-1976. Of these 445 were public limited companies and 985 private limited companies. Ten public companies and eighty eight private companies were newly registered during 1976-77.

while nine public companies, and fourteen private companies were wound up. Thus at the close of the year 1976-77 (31-3-1977) the total number of joint stock companies in the State stood at 1505, of which 448 were public limited companies and 1057 private limited companies. The number of Government Companies registered with the Registrar of Companies increased from 61 on 31-3-1976 to 65 on 31-3-1977. The four Government companies newly registered during the year were the Rehabilitation Plantations Ltd., Kerala State Detergents and Chemicals Ltd., Kerala State Industrial Products Trading Corporation Ltd., and Scooters Kerala Ltd. Of the total number of 65 Government companies, 32 were public limited companies, and 33 private limited companies.

Working Factories

6.13 The total number of registered working factories in the State increased by 604, from 6317 in 1975 to 6921 in 1976. A district wise distribution of registered working factories at the end of the years 1975 and 1976 are given in Table 6.1.

TABLE 6.1

Registered Working Factories in Kerala

Sl. No.	District	No. of registered working factories at the end of		Variation in numbers in 1976 as compared to 1975
		1975	1976	
(1)	(2)	(3)	(4)	(5)
1.	Trivandrum	252	274	+22
2.	Quilon	659	724	+65
3.	Alleppey	462	513	+51
4.	Kottayam	507	538	+31
5.	Idukki	122	128	+6
6.	Ernakulam	1012	1081	+69
7.	Trichur	827	812	-15
8.	Palghat	631	630	-1
9.	Malappuram	112	131	+19
10.	Kozhikode	966	1041	+75
11.	Cannanore	767	1049	+282
State total		6317	6921	+604

6.14 The increase in the number of factories has been significant in Cannanore district (282). There has been notable increase in Kozhikode (75), Ernakulam (69), Quilon (65) and Alleppey (51) districts also. In Trichur and Palghat districts there was a decline in the number of factories as compared to the previous year, the decline being 15 in the case of Trichur, and one in the case of Palghat.

6.15 The average daily employment in all the registered working factories has increased from 2,64,194 at the end of 1975 to 2,81,201 at the end of 1976. All industries except tiles, matches, saw mills and printing presses have contributed to this increase in employment.

Assuming that employment in the existing factories is unchanged, it can be seen that every new factory opened in 1976 could employ on an average about 28 persons (as against 18 persons in 1975). An industry-wise and district-wise distribution of registered working factories as at the end of 1976 is provided in Appendix 6.1 There is no discernible change in the employment pattern. Cashew industry still accounts for nearly half the total number of factory workers in the State.

Large and Medium Industries

6.16 At the beginning of this century there were only a limited number of factories employing a few hundred workers in Kerala. Provision of overhead facilities such as modern roads, cheap prices as also other concessions to industrialists contributed to the setting up more and more factories in the State. As the industries sector could not attract sufficient number of private entrepreneurs it became imperative for the State to assume the role of an industrial entrepreneur. Many of the major industries in the State had thus been formed as a result of the State initiative. These units cover a wide and diversified field of production. Generally these industrial concerns are classified into two: (i) Government owned companies in which all the complete shares are held by the Government, and (ii) Government majority concerns in which more than 50 per cent of the shares are held by Government.

Government-owned Companies

6.17 The major Government owned industrial concerns of the State are:—

- (1) Trivandrum Rubber Works
- (2) Kerala Ceramics
- (3) Travancore Plywood Industries
- (4) Kerala Electrical and Allied Engineering Company
- (5) Kerala Soaps and Oils
- (6) Kerala State Drugs and Pharmaceuticals
- (7) Kerala Premo Pipe Factory
- (8) Kerala Minerals and Metals Ltd
- (9) Trivandrum Spinning Mills Ltd

6.18 The paid-up capital of these nine companies together is Rs. 726 lakhs and they provide employment to 3,800 persons. The total paid-up capital stood at Rs. 632 lakhs at the close of 1975-76. The State's contribution towards the share capital of these companies was about Rs. 94 lakhs. The total value of production of these companies during 1976-77 amounted to Rs. 910.80 lakhs and total sale proceeds Rs. 981.75 lakhs. Though the problem of adverse operating results still exist in most of the companies, it was possible to reduce the overall loss margin from Rs. 148.29 lakhs in 1975-76 to Rs. 75.39 lakhs in 1976-77 (See Appendix 6.2).

6.19 The State has invested fairly large sums in these concerns during the successive five year plans for their expansion/diversification/modernisation and also brought about organisational and structural changes in their constitution and management. All these measures were aimed at reducing their continued losses and placing them on a sound footing. But most of the concerns continue to be in the red.

6.20 In January 1973, six Government owned companies were brought under the management of the holding company, the Kerala State Industrial Enterprises. This holding company is making efforts to revitalise the operations of its subsidiaries, by

maintaining an effective system of monitoring the performance of subsidiary companies and by arranging institutional finance required for working capital. The Holding Company has also invested an amount of Rs. 40 lakhs in the subsidiary companies as promoter's contribution to the various projects.

6.21 The six subsidiary companies have a paid up capital of Rs. 490.02 lakhs and provide employment to 2488 persons as on 31-3-1977. The total sale of finished products of these companies rose to Rs. 849.09 lakhs in 1976-77 from Rs. 625.74 lakhs in the previous year. Certain salient features of the Holding Company are presented in Table 6.2

TABLE 6.2

Statistics relating to the operation of the Subsidiary Companies of the Kerala State Industrial Enterprises

Name of Company	Paid up capital (Rs. lakhs)	No. of employees as on 31-3-1977	1975-76		1976-77		Management fees received in 1976-77 (in Rs.)
			Sales (Rs. lakhs)	Profit/loss (Rs. lakhs)	Sales (Rs. lakhs)	Profit/loss (Rs. lakhs)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum Rubber Works	57.70	374	116.15	-34.11	156.69	-18.40	36575
Kerala Ceramics	107.95	627	59.32	-42.99	83.62	-41.55	52025
Travancore Plywood Industries	48.58	466	94.59	+2.11	164.71	-10.94	51225
Kerala Electrical & Allied Engineering Company	95.82	436	143.65	-44.64	126.40	-23.38	45650
Kerala Soaps and Oils Ltd.	149.97	307	57.53	-4.96	138.45	-6.01	53036
Kerala State Drugs and Pharmaceuticals	30.00	278	154.50	+3.06	179.22	+4.47	56300
Total	490.02	2488	625.74	-121.53	849.09	-95.81	294825

6.22 Of the six companies originally entrusted to the Holding Company, all except the Kerala State Drugs and Pharmaceuticals sustained losses during 1976-77. These losses range from Rs. 6.01 lakhs in the case of Kerala Soaps and Oils Ltd., to Rs. 41.55 lakhs in the case of Kerala Ceramics. The total loss incurred by these group of companies registered a fall in 1976-77 compared to the previous year. Shortage of financial resources, under-utilisation of capacity, inadequacy of working capital and marketing arrangements, severe competition from private sector, failure to modernise production machinery in time, high labour cost and high interest charges are the reasons attributed to the losses incurred by these companies.

6.23 The Holding Company on its own initiative has formed a new company, the Kerala State Detergents and Chemicals, for the manufacture of 10,000 tonnes of detergents per annum, at Malappuram. The construction work of this factory is in progress. The Government took over the management of the Super Clays and Minerals Mining Company (Private) Limited as a 'relief' undertaking and also entrusted its management to the Holding Company. The working of this company which employs about 700 workers is now satisfactory.

6.24 The Trivandrum Spinning Mills, Kerala Minerals and Metals, Kerala Premo Pipe Factory and Sitaram Spinning and Weaving Mills are the other major Government owned concerns. The Trivandrum Spinning Mills which was closed for nearly two years due to paucity of working capital was under lay-off from [13-11-1975. Production started only from 8-8-1977 under the management of the Kerala State Textile Corporation. The Government purchased the Sitaram Spinning and Weaving Mills (in liquidation) in court auction and have taken up the modernisation and rehabilitation of this unit through Sitaram Textiles Ltd., a separate company formed by the Government for this purpose. This company also incurred a loss of Rs. 3.56 lakhs in 1976-77 mainly due to the general crisis prevailing in the Indian textile industry. The Kerala Premo Pipe Factory, contrary to previous year's performance, managed to make a profit of Rs. 5.83 lakhs in 1976-77. The Kerala Minerals and Metals Ltd., showed substantial improvement in both production and sales and ultimately ended up with a record profit of Rs. 30.77 lakhs in 1976-77.

6.25 Data relating to paid up capital, workers employed, production, sales, financial results, production

capacity, and capacity utilisation of the Government owned companies for the years 1975-76 and 1976-77 are given in Appendix 6.2 and 6.3.

Government Majority Concerns

6.26 The following companies come under the group:

- (i) Travancore Titanium Products
- (ii) Traco Cable Company
- (iii) Travancore Cochin Chemicals
- (iv) Transformers and Electricals Kerala, Ltd.
- (v) Pallathra Bricks and Tiles
- (vi) Chalakudy Potteries
- (vii) United Electrical Industries
- (viii) Forest Industries Travancore Ltd.

6.27 The total paid-up capital of the group of companies having Government majority shares increased from Rs. 1172.59 lakhs to Rs. 1417.21 lakhs during the year 1976-77. The companies which have increased the paid up capital are Travancore Titanium Products, Travancore Cochin Chemicals, Transformers and Electricals, United Electrical Industries and Chalakudy Potteries. The additional employment generated falling under the group, Government majority concerns, was only 325. The total number of persons employed increased from 4246 in 1975-76 to 4571 in 1976-77. The total value of goods produced, as well as the total sales during 1976-77 increased significantly to Rs. 3275.07 lakhs and Rs. 2855.44 lakhs respectively from the corresponding figures of Rs. 2147.59 lakhs and Rs. 2158.44 lakhs in 1975-76. On the export front the effort of this group of companies was not significant. Of the total sales of Rs. 2855.44 lakhs in 1976-77 only goods worth Rs. 41.96 lakhs were exported. Of this Rs. 39.06 lakhs was accounted for by Travancore Titanium Products.

6.28 Among the Industrial concerns in which the Government has majority shares, the Travancore Titanium Products, Traco Cable Company and Transformers and Electricals Kerala, are running at a profit. These companies among themselves earned a net profit of Rs. 199.87 lakhs during 1976-77, the individual share of each company being Rs. 98.83 lakhs in the case of Travancore Titanium Products, Rs. 33.64 lakhs for Traco Cable Company and Rs. 67.40 lakhs for Transformers and Electricals Kerala Ltd. But this creditable achievement was marred by the sister companies in this group which sustained losses. Among them the Travancore Cochin Chemicals tops the list with a loss of Rs. 267.08 lakhs in 1976-77 as against Rs. 134.18 lakhs in the previous year. The losses sustained by other companies were Pallathra Bricks and Tiles Rs. 1.42 lakhs, Chalakudy Potteries Rs. 3.17 lakhs, United Electrical Industries Rs. 20.84 lakhs and

4/853/MC.

Forest Industries 3.08 lakhs. All these companies of this group together incurred a net loss of Rs. 60.86 lakhs in 1975-76. In 1976-77 the loss sustained increased by Rs. 35.06 lakhs to Rs. 95.72 lakhs (See Appendix 6.4).

6.29 The Travancore Cochin Chemicals attribute its heavy loss to the slump in caustic soda consuming industries, emergence of cheap substitutes to its products, severe competition and high cost of production, while in the case of United Electrical Industries, it was due to the recession in the electrical engineering and entertainment electronics industries. Pallathra Bricks and Chalakudy Potteries are not at present viable units and they are incurring losses for the last several years. Attempts are being made to make them viable by expansion/diversification/modernisation. Forest Industries (Travancore) Ltd., was running at a profit in 1975-76. In 1976-77, the Government stopped the permission accorded to it for extraction of timber at concessional rate from the forest areas. This is reported to have adversely affected the company's operations.

6.30 Data regarding capacity production and capacity utilisation of Government majority concerns for the years 1975-76 and 1976-77 are furnished in Appendix 6.5.

Kerala State Industrial Development Corporation

6.31 This is the premier organisation in the State engaged in the promotion of large and medium industries. The Corporation continued to assist industries spread all over Kerala during 1976-77. A comparative statement showing the financial assistance rendered by the Corporation during the last three years is given in Table 6.3.

TABLE 6.3

Details	(Rs. in lakhs)		
	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)
Applications received	271.27	250.83	186.60
Applications sanctioned	271.27	223.73	171.60
Amount disbursed	197.87	148.36	84.61

6.32 Applications for financial assistance to the tune of Rs. 186.60 lakhs were received by the Corporation during 1976-77. Applications worth Rs. 171.60 lakhs were sanctioned during the year. The actual disbursement however was only Rs. 84.61 lakhs. As can be seen from Table 6.3 there was a slight set back in the performance of the Corporation in 1976-77 compared to the previous year.

6.33 The Corporation's assistance in financial terms fall into three categories viz., contribution to share

capital, provision of short term and long term loans, and guarantee given to third parties on behalf of aided companies. The Corporation sanctioned subscription to share capital aggregating Rs. 30.60 lakhs to seven companies as against Rs. 67.13 lakhs to five companies in the previous year. The actual amount disbursed was only Rs. 18.06 lakhs, whereas it was Rs. 28.86 lakhs in the previous year. During 1976-77, a sum of Rs. 86 lakhs was sanctioned as loan to four units as against Rs. 139.25 lakhs to twelve units in the previous year. The total loan disbursement made during the year amounted to Rs. 63.95 lakhs. The comparative figure for the previous year was Rs. 110.23 lakhs. An application for guarantee assistance amounting to Rs. 55 lakhs was also sanctioned during the year.

6.34 Apart from this financial assistance, the Corporation also provides various types of assistance to promoting companies. Such assistance covers a wide range of pre-investment entrepreneurial activities such as identifying projects, submission of applications for letters of intent and obtaining licence, arranging technical collaboration, negotiating with financial institutions for securing assistance, participation in project reports etc. The Corporation also enters into joint promotional agreements with private parties in order to carry through the above range of activities on a joint basis.

6.35 The Corporation has share capital investments as at the close of the financial year 1976-77 in thirty-six companies, of which eight are in the public sector and the rest in the joint or private sector. Loans had been advanced by the Corporation to 27 companies at the close of the year 1976-77. The adverse conditions which have affected the textile units (particularly spinning mill) and mini steel plants for the last three years have affected the repayment of loans from these units. Some other aided industries also continue to face recession and have the problem of repayment of loans in time. The Corporation is providing support to such of them as are capable of becoming viable units in course of time.

6.36 The Central Government has notified this Corporation as a financial institution eligible for refinance under the Industrial Development Bank of India Act. The Corporation has come into a working arrangement with the Kerala Financial Corporation in respect of the types and limits of assistance for which refinance has to be availed of by each agency in the State. The Corporation has also agreed to act as an agent of the Industrial Development Bank of India in respect of matters relating to disbursement of seed capital assistance to professionally qualified entrepreneurs.

6.37 Of the Several letter of intent received by the Corporation, about six relating to nylon, soda ash, cigarettes, printing paper, spinning mills and H. D.

P. E. bags have been abandoned for various reasons. All the other eleven letters of intent are either under implementation or are being pursued actively.

6.38 The gross income of the Corporation in 1976-77 was Rs. 78.80 lakhs as against Rs. 67.75 lakhs in the previous year. Though the gross income increased by about Rs. 11 lakhs, the net profit remained almost the same as that of the previous year. The net profit during 1976-77 was Rs. 12.74 lakhs. The net profit position was maintained more or less at the same level as in the previous years, notwithstanding the increase in other expenses, largely because of the increase of earnings from dividends due to share capital investments in assisted companies.

6.39 The paid-up capital of the Corporation as on 31-3-1977 stood at Rs. 464 lakhs. Since the close of the financial year 1973-74 the State Government has not increased its investment in the share capital of the Corporation, nor has the Corporation any outstanding borrowings from the Government. Therefore in order to augment its resources, the Corporation has been raising funds by issue of bonds every year, to the extent permitted annually through agreements between the State and Central Governments. The outstanding market borrowing at the close of 1976-77 stood at Rs. 681 lakhs. The tempo of industrial development is rising in the State and commensurate with it the resources of the Corporation have to be augmented. The Corporation has approached the State Government for increasing its investment in the share capital in line with the Corporation's current investments in the share capital of assisted companies and with the demand for similar investment in new companies.

Kerala State Electronics Development Corporation.

6.40 The Kerala State Electronics Development Corporation, during a short span of four years, was able to establish twelve small/medium/large scale companies in different parts of Kerala, undertake the manufacture of electronic systems and equipments under its own control, establish a result oriented Electronic Research and Development Centre for electronic industry as a whole, a testing and development centre, a material development centre and a central marketing organisation. The Corporation has set up directly under its control in Trivandrum production units for the manufacture of television receivers, digital electronics, industrial electronics, electronic printers and other peripheral equipments, and a wide range of items designed by the Electronic Research and Development Centre. The companies which manufacture passive components such as electrolytic capacitors, piezo electric crystals, electro magnetic components, and carbon film resistors are located in the northern region of Kerala, while companies which manufacture ceramic capacitors, and active com-

ponents such as power transistors, silicon rectifiers and diodes are located in the central region.

6.41 The main items produced by the Corporation during 1976-77 were television receivers, electronic calculators, and industrial electronic equipments and systems. The Corporation produced 4059 television sets in 1976-77 against the installed capacity of 5000 sets, and an actual production of 3368 sets during the previous year. Considering the increase in the demand of T. V. receivers, the Corporation has already applied for expansion of the present capacity from 5,000 to 20,000 sets per annum. The Corporation also produced a range of electronic calculators, under-frequency relays, control unit for weigh-bridges, line frequency monitors, master clock systems etc. It is at present exporting calculators to the Middle East, and has obtained an export order from U. S. S. R. for 700 scientific calculators. The Industrial Electronics Division of the Corporation manufactured static inverter system, variable speed devices and other custom built electronic equipment to the value of approximately Rs. 52 lakhs.

6.42 Among the twelve subsidiary companies of the Corporation, six companies viz., Keltron Component Complex Ltd., Keltron Magnetics, Keltron Resistors, Dielecto Magnetics Ltd., Keltron Power Devices and Keltron Rectifiers are at various stages of implementation. Construction of buildings, and the installation of machines are almost complete in some of these companies, and they are expected to commence production during the course of 1978. The remaining six companies have started production. Among them Keltron Crystals produced in 1976-77 about 12,000 pieces of crystals valued at Rs. 6 lakhs, Keltron projectors manufactured 212 numbers of 16 mm Sound cine projectors, Keltron Entertainment Systems Ltd. produced 5360 Kirti transistors, Keltron Ferrites Ltd. manufactured industrial ferrites valued at Rs. 20 lakhs and Keltron Varistors Ltd. produced thermistors at the rate of 50,000 pieces per month. In Keltron Counters Ltd., there was a set-back in production due to lack of orders from Indian Telephone Industries. The Company is therefore taking steps to diversify production and manufacture traffic control systems in co-operation with its subsidiary, the National Traffic Planning and Automation Centre.

6.43 The Corporation has provided direct employment to more than 1500 persons and three times that number indirectly. The Corporation is also indirectly responsible for providing employment to a large number of workers in the ancillary and small scale sector. At present about sixty units supply components, sub assemblies cabinets and other items to the major units of the Corporation.

6.44 The paid up share capital of the Corporation stood at Rs. 325 lakhs as on 31-3-1977. The total

investment of the Corporation in its associate/subsidiary companies either as equity or loan or both was Rs. 341 lakhs at the end of 1976-77. The Corporation has so far issued three series of bonds for an aggregate amount of Rs. 275 lakhs on the guarantee of Kerala Government for repayment of principal and interest. It has also collected deposits from the public amounting to Rs. 40.26 lakhs as on 31-3-1977.

6.45 The total turnover of the Corporation including that of its associates/subsidiary companies in 1976-77 was of the order of Rs. 311 lakhs as against Rs. 205 lakhs in the previous year. The operations of the Corporation during 1976-77 resulted in a profit of Rs. 2.23 lakhs. As the main objective of the Corporation is to set up an electronic industry in the State by giving technical, financial and marketing support, the criterion for judging its progress is the fulfilment of its objective, and not the profit data. By its working the Corporation has contributed substantially to the integrated growth of electronic industry in Kerala.

Government of India Companies.

6.46 Among the Government of India Companies in Kerala, the Hindustan Insecticides, Modern Bakeries, Hindustan Machine Tools, Indian Rare Earths, Hindustan Latex, and the recently started Instrumentation Ltd., are running on a profit, while Cochin Refineries and Fertilizers and Chemicals (Travancore) Ltd., continue to incur losses. The loss sustained by FACT during 1976-77 increased from Rs. 1284 lakhs in 1975-76 to 1396 lakhs in 1976-77, while that of Cochin Refineries decreased from Rs. 196.80 lakhs to Rs. 52 lakhs during the corresponding period. The year 1976-77 could be described as the most successful year for Indian Rare Earths which earned a record net profit of Rs. 151.3 lakhs and for Hindustan Machine Tools which turned the corner by converting its continued losses into profit. In spite of such commendable achievement by some of the Central sector companies, FACT continues to incur heavy losses. The overall financial position of the Government of India Companies in Kerala taken together indicates a loss. The total loss in 1976-77 was Rs. 1125.96 lakhs which was less than the previous year's figure by Rs. 209 lakhs. (See Appendix 6.6).

6.47 The major reasons for losses by FACT despite improving trends in production are the low utilisation of production capacity of the Cochin Phase I Project, the imbalance in the debt equity ratio of the company, and the sale of ammonium sulphate at the statutorily fixed price which is uneconomic to the unit. The Cochin Refineries was functioning at far below its expanded capacity of 3.3 million tonnes owing to non-availability of crude in adequate quantities. The pricing policy regarding petroleum products introduced by the Government of India also affected the working results of Cochin Refineries adversely.

6.48 As most of the Central Sector Companies functioning in Kerala are only units of parent companies functioning outside the State, precise information regarding paid up capital is not available. The paid up capital of FACT increased from Rs. 7386.19 lakhs to Rs. 7401.98 lakhs in 1976-77, while that of Cochin Refineries, Cochin Shipyard and Hindustan Latex remained stationary at the previous year's level. Central sector companies functioning in Kerala provided

employment to 13,042 persons in 1976-77. The production and sale of these units increased substantially compared to the previous year. The sale of finished products of this group of companies in 1976-77 was Rs. 30367.53 lakhs. Of this goods worth Rs. 669 lakhs were exported to foreign countries by Indian Rare Earths and Hindustan Machine Tools (See Table 6.4).

TABLE 6.4

Government of India Companies—Production, Sale, Profit, Employment and Export in 1976-77

Sl.No.	Name of Company	Persons employed	Value of production	Total sales	Net Profit/loss	Export
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Hindustan Insecticides (Alwaye)	508	533.53	413.44	+51.65	..
2.	Modern Bakeries Ltd. (Cochin)	149	140.58	164.15	+23.39	..
3.	Instrumentation Ltd. (Palghat)	173	163.00	214.90	+ 3.64	..
4.	Hindustan Machine Tools (Kalamassery)	2498	816.57	841.14	+72.81	71.60
5.	Fertilizers and Chemicals Travancore Ltd.	6756	5300.27	6321.35	-1396.00	..
6.	Cochin Refineries	434	14063.82	21273.31	-52.00	..
7.	Indian Rare Earths	470	924.60	928.00	+151.30	597.40
8.	Cochin Shipyard	1340	..	..	..	..
9.	Hindustan Latex	714	224.69	211.24	+19.25	..
Total		13042	22167.06	30367.53	-1125.96	669.00

(+) = Profit (—) = loss.

6.49 Ship building activities at the Cochin Shipyard which commenced in February 1976 are progressing satisfactorily in the building dock. By the end of 1977, most of the units of the first 75,000 D.W.T. bulk carrier had been fabricated. The construction activities for the Newsprint Factory at Velloor are progressing inspite of some labour troubles. This factory is expected to commence production in 1978 as per schedule.

6.50 Data regarding the capacity, production and capacity utilisation of Government of India concerns functioning in Kerala for the years 1975-76 and 1976-77 are given in Appendix 6.7

Traditional Industries

(a) Coir Industry

6.51 The Coir Development Scheme initiated as early as in the First Five Year Plan aims at reorganisation of coir workers into cooperatives so as to ensure reasonable wages to workers and organise production and marketing including export. The coir societies set up earlier were service type of organisations helping members to procure raw materials and acting as commission agents for marketing their products. But

since 1974-75 a programme for restructuring coir co-operative societies into production cum sales societies has been undertaken where by the societies can organise production on their own, and pay wages to members. At the end of 1976-77, there were 243 primary societies, 13 mats and matting societies, 4 central coir marketing societies, and 3 husk procurement and distribution societies in the State.

6.52 The primary societies in the spinning sector cover 1,24,835 members. During 1976-77 these societies purchased 1541.98 lakhs husks and produced 14,743 tonnes of yarn. The manufacturing societies which have a membership of 1620 produced coir good worth Rs. 141.63 lakhs. The Central marketing societies having a membership of 456 persons purchased coir goods worth Rs. 514.23 lakhs in 1976-77 of which goods worth Rs. 497.04 lakhs were sold inside the country and that worth Rs. 29.41 lakhs were exported.

6.53 The co-operativisation programme has to be stepped up considerably in order to have an effective control of the market. Even at the present stage we find that co-operatives have helped to minimise violent fluctuations in the market, and provide higher wages to coir workers.

6.54 The coir industry at present is subjected to various control orders. A system of licencing for retting and manufacture of fibre has been enforced under the Coconut Husk Control Order. The movement of fibre is controlled under the provisions of the Kerala Coconut Husk and Fibre Regulation of Movement Order. The export of fibre to areas outside the State is regulated under the provisions of the Kerala Coconut Husk and Coir Fibre (Export Control) order. Deco-fibering of husks with machinery is banned in four districts, as also installation of additional machinery in other districts. The Kerala Coir Products (Price Fixation) Order has been introduced with a view to enforce reasonable price to small scale producers. The cumulative effect of these regulations, and their implementation by strengthening the enforcement staff facilitated the reorganisation of cooperative societies to a considerable extent. But some peculiar problems have also emerged. Unlike cashew industry where the raw material is not available to the industry due to its scarcity within the country in coir industry the material is locally available in plenty, but is not reaching the production units in sufficient quantities. The estimated production of coir fibre in Kerala during 1976-77 is 1,60,000 tonnes. On the assumption that 1000 husks could yield 95 kgs. of fibre on an average, the number of husks required for producing 1,60,000 tonnes of coir fibre works out to 1685 million husks. The production of coconuts in Kerala in 1967 was over 3700 million nuts. This indicates that only about 40 per cent of the husks produced is available for the industry. Thus paradoxically the major problem confronting the industry is the non-availability of husks. This calls for urgent attention and in the light of experience already gained the various control measures may have to be subjected to further scrutiny and, if found necessary, amended suitably, so that the industry may not suffer from the non-availability of raw husks.

6.55 The production of coir has been more or less stagnant during the few years prior to 1976-77. But there has been a significant improvement in production during the year 1976-77. The production during the year as compared to the previous year is given in Table 6.5

TABLE 6.5

Sl.No.	Item	Production in tonnes during	
		1975-76	1976-77
1.	Coir fibre	1,55,000	1,60,000
2.	Coir yarn	1,20,000	1,28,000
3.	Coir Products	23,800	29,000
4.	Coir rope	11,400	17,000
5.	Curled coir	2,500	3,000
6.	Rubberised coir	1,000	1,000

6.56 The export of coir and coir products has been steadily declining during the past decade in terms of quantity, though in terms of money value it has been on the increase on account of the higher unit value. This declining trend has been reversed during 1976-77 as can be seen from Table 6.6.

TABLE 6.6

Sl. No.	Item	Export in 1975-76		Export in 1976-77	
		Quantity (tonnes)	Value (Rs. lakh)	Quantity (tonnes)	Value (Rs. lakh)
1.	Coir fibre	266	6.94	134	2.88
2.	Coir yarn	22,970	1,002.19	26,567	1,052.32
3.	Coir mats	7,488	562.48	9,582	735.18
4.	Coir mattings, Carpets, rugs etc.	5,276	337.12	7,020	462.00
5.	Coir rope	269	6.70	185	5.42
6.	Curled coir	1014	19.52	868	19.48
7.	Rubberised coir goods	1	0.25	1	0.27
Total		37,284	1,935.20	44,357	2,277.55

6.57 The total export of coir and coir goods from India in 1976-77 was 44,357 tonnes valued at Rs. 22.78 crores, compared to 37,284 tonnes valued at Rs. 19.35 crores in 1975-76. The export during 1976-77 recorded an increase of 7,033 tonnes in quantity and Rs. 3.43 crores in value. Coir yarn, mats, mattings, rugs were the major items which showed substantial increase in the export front.

Kerala State Coir Corporation.

The Kerala State Coir Corporation, a fully owned Government company, continued its efforts in stabilising the coir industry and also functioned as an export house for coir. It gave business support to a large number of workers in the manufacturing sector who are outside the co-operative fold. There are about 1996 small scale units registered with the Corporation. The total purchase of coir products from these units during 1976-77 amounted to Rs. 87.75 lakhs. The total sales turnover of the Corporation for the year 1976-77 was Rs. 133 lakhs, of which the export sales accounted for Rs. 114 lakhs.

6.59 For increasing internal sales the Corporation has drawn up a massive programme for opening show rooms in different State capitals and other major cities. The Corporation has also decided to open show room-cum-warehouses at New York, Hamburg and Kuwait for promoting export sales.

6.60 The Coir Corporation initiated the setting up of husk retting centres in different parts of the State to create an awareness among the workers about their right to receive the enhanced wages. This resulted in an all round improvement in the earning capacity of the workers. At present the Corporation

has 17 husk retting centres. It is running the Model Coir Factory at Beypore on Commercial lines. A defibering unit has been installed in this factory for extracting fibre from husks and proposals to expand this unit by installing decorticated and curled fibre units are under consideration.

6.61 As part of the programme for improvement in the quality of products and diversification of products to meet the competition in the world market, the Corporation has initiated steps to instal a modern dye-house. When commissioned it will be able to process two tonnes of coir yarn per shift and will substantially contribute to the improvement of colouring coir products which has long remained a problem with the handloom sector. The Corporation has also taken up a project for the manufacture of latex foam backed mattings for which there is a projected annual demand of about Rs. 10 crores. This unit with an annual capacity of 3.6 million sq. metres will cost around Rs. 178 lakhs and will give direct employment to 1029 persons. The machinery for the new plant worth Rs. 70 lakhs has been imported from Denmark and the construction of the factory building is in progress. The plant is expected to be commissioned in August 1978.

(b) Cashew Industry

6.62 The growth of cashew factories in Kerala during the last two decades had been remarkable. 1958 there were only 173 cashew factories in the State. By 1970 the number of factories had increased to 264. Since then the number remained around 270. Cashew dominates the factory sector in the matter of provision of employment. Nearly half the total number of the factory workers is engaged in this industry. The average daily employment in cashew factories which was only around 0.67 lakhs in 1958 increased gradually and by 1972 crossed the one lakh mark. The total number of workers in the registered cashew factories as on 31-12-1976 was 1,35,264. Though the number of workers in this industry has been increasing steadily, they are not getting full employment throughout the year. In fact it is on the decline during the recent years. The Kerala Cashew Development Corporation (Quilon) which manages 34 cashew factories was able to provide on an average only 85 days of work during 1976 and 76 days of work during 1977, due to non-availability of raw nuts in sufficient quantities for processing.

6.63 Nearly two thirds of the total quantity of raw nuts required for this industry were being imported from East African countries. Recent trends in raw cashew imports are not encouraging and the inadequacy of raw nuts is the greatest problem facing the industry. The industry today is facing the twin problems of competition in the kernel trade and dwindling supply of raw nuts from East African countries.

These difficulties pretend a major set back to our cashew processing industry. India once the monopoly produce of cashew kernels is facing competition in the international nut market from cashew producing countries like Tanzania, Mosambique and Brazil which have started their own processing units. It is reported that China has also entered the cashew processing industry. Figures relating to raw nut imports into India for the last few years are given in Table 6.7.

TABLE 6.7
Raw nut imports

Year	Raw nut imported in Tonnes	Value of import (Rs. lakhs)
1973-74	1,50,249	2879.86
1974-75	1,60,385	3660.43
1975-76	1,37,196	3355.78
1976-77	71,858	1739.85

6.64 As can be seen from the above figures, the import of raw nuts is steadily declining and in 1976-77 reached its lowest level (71, 858 tonnes) which is less than half the import in 1974-75. Added to the dwindling volume of exports, the unit value of imported nuts has also increased considerably during the recent years.

6.65 In order to distribute raw nuts to the processing units in an equitable manner and to eliminate the intermediaries who are exploiting the growers, the State Government authorised the Kerala State Co-operative Marketing Federation for monopoly procurement of indigenously produced raw nuts. To provide for the smooth procurement of raw nuts the Government made necessary amendments in the Kerala Raw nut (Marketing and Distribution) Order 1976, whereby the sale and procurement of raw nuts by private agencies was discontinued. The Federation motivated one thousand village level co-operative societies to collect raw nuts at prices announced by the State Government which ranged from Rs. 370 to Rs. 400 per quintal. These purchase prices underwent an upward revision later. It was expected that this new arrangement would ensure the maximum procurement of indigenous raw nuts and thereby enable the processing factories of the State to operate for more days in a year than before. The central agency collected about 65,000 tonnes of raw nuts and the nuts so collected were sold to the eligible users on the basis of norms relating to labour strength fixed by the Cashew Corporation of India (Cochin).

6.66 The major problem of inadequate supply of raw nuts to the processing factories has attracted the attention of both the Central and State Governments. This awareness has brought on its wake sincere attempts at the solution of the problem by increasing the indigenous production of raw nut through short term

measures like increasing production in the existing plantations by scientific manuring and pest control and through long term measures like bringing more area under cultivation.

6.67 India exported 51,538 tonnes of cashew kernels valued at Rs. 10614.64 lakhs in 1976-77. The export of cashew shell liquid during the year was 4838 tonnes, valued at Rs. 107.69 lakhs. Thus altogether India exported cashew products worth Rs. 10722.33 lakhs. The export of kernels as well as cashew shell liquid was low in terms of quantity compared to previous year. But owing to higher unit value of the products in value terms the realisation was higher. India imported 71,858 tonnes of raw nuts valued at Rs. 1739.85 lakhs during 1976-77. Thus the net foreign exchange earnings from the industry increased from Rs. 6502.85 lakhs in 1975-76 to Rs. 8982.48 lakhs in 1976-77.

The Kerala State Cashew Development Corporation

6.68 The Kerala State Cashew Development Corporation continued to manage thirty-four cashew factories. These units provide employment to 33,081 workers and 1,770 staff members. Owing to non availability of raw nuts in adequate quantities, the Corporation was able to work only for 76 days during 1976-77. The Corporation processed 21,176 tonnes of raw nuts (13,654 tonnes of East African and 7,522 tonnes of local raw nuts) during 1976-77 as against 41,926 tonnes (2,822 tonnes East African and 13,704 tonnes local) processed during the previous year. The total sales turnover of the Corporation was Rs. 1491.32 lakhs. The Corporation exported kernels worth Rs. 1440.28 lakhs and cashew shell liquid worth Rs. 18.22 lakhs in 1976-77. The Corporation has won the certificate of merit instituted by the Government of India for best export performance in cashew for the years 1974-75 and 1975-76. On the basis of past export performance it has been declared as an export house.

6.69 The total amount of wages paid by the Corporation, including leave with wages and holiday wages was Rs. 204.02 lakhs. The net profit of the Corporation, subject to audit is expected to be Rs. 17.59 lakhs. There has been a growing awareness of the acute under employment and unemployment among the cashew workers and therefore welfare measures like payment of interim relief etc., are being resorted to.

(c) *Handloom Industry*

6.70 Handloom is a major traditional industry in the State which provides sustenance to about 2.7 lakh people. The direct employment in the industry is about 1.2 lakhs. (See Appendix 6.10 for details). According to the Census of handlooms conducted in 1976, there are 21,681 weaving households and 2,057 other weaving establishments in the State. Out of the

total number of 90,030 looms in the State, 17,874 are pit looms and 72,156 frame looms (See Appendix 6.11 and 6.12). The Industry is heavily concentrated in Cannanore district. The number of handloom households and establishments is fairly high in Trivandrum and Kozhikode districts also.

6.71 Production in the handloom sector declined considerably in 1976-77 compared to the previous year. In the co-operative sector the production declined from 236 lakhs metres in 1975-76 to 219 lakhs metres in 1976-77. In value terms the decline was from Rs. 902 lakhs to Rs. 678 lakhs. The production in the private sector also decreased and is estimated to be of the order of 650 lakh metres of cloth worth Rs. 25 crores. The increase in yarn price, difficulties in marketing due to stiff competition from mill sector, decline in foreign demand and failure on the part of the industry to adjust itself to changing patterns, designs and tastes of the consumers are the main reasons for the shortfall in the production front.

6.72 There are at present 42 firms in Kerala registered with the Handloom Export Promotion Council, Madras. Handloom cloth and garments worth Rs. 268 lakhs were exported during 1976-77 by these firms. The export of handloom fabrics of Kerala by exporters in other States is expected to be much more.

6.73 The main source of crisis in handloom industry which leads to under production and under employment of handloom workers is the accumulation of unsold stocks and special efforts have been taken to tide over this difficulty in 1976-77 also. As a short term measure an amount of Rs. 40 lakhs was sanctioned to the Kerala Handloom Apex Society and Rs. 85 lakhs to the Kerala Handloom Finance and Trading Corporation for the procurement of accumulated stocks. In addition to the usual 10 per cent rebate scheme for 45 days every year, a special rebate of 20 per cent was in operation during the months of March/April 1977. Fifty per cent of the expenditure towards the special rebate scheme was met by the Government of India. As a long term measure an amount of Rs. 20 lakhs was sanctioned to the Kerala Handloom Apex Society by way of share participation in order to undertake various sales promotion schemes like the establishment of show-rooms outside the State, renovation of existing depots/emporiums, purchase of delivery vans etc.

6.74 Apart from the above measures, various other steps were being taken or initiated during 1976-77 for the development of handloom industry. The amount of cash credit sanctioned to primary weavers' co-operative societies under R.B.I. scheme of handloom finance was increased to Rs. 111 lakhs in 1976-77, as against Rs. 104 lakhs in 1975-76. A Working Group constituted to go into the details of requirement etc. of

funds to be made available from R.B.I. recommended the liberalisation of norms fixed for cash credit, and raising of credit amount to Rs. 405 lakhs for the year 1977-78. The Government sanctioned Rs. 10 lakhs to 67 weavers' co-operative societies towards share participation so as to enable them to avail of more cash credit from the Reserve Bank of India towards working capital. Commercial banks were also giving aid to individual weavers for modernisation of looms etc. under differential rate of interest scheme.

Kerala Handloom Finance and Trading Corporation

6.75 In 1976-77 the Kerala Handloom Finance and Trading Corporation disbursed loans to 87 members for an aggregate amount of Rs. 2.60 lakhs. Besides the Corporation also provided credit loan of Rs. 1.32 lakhs to 131 members. The Corporation has since its inception disbursed loans totalling Rs. 46.17 lakhs to 1294 members. Out of this, an amount of Rs. 13.01 lakhs was outstanding from 701 members. Similarly a balance of Rs. 9.42 lakhs being the amount advanced on the supply of yarn/fabrics and other raw materials was outstanding from 300 persons. This hampered the smooth working of the Corporation, and expansion of its activities/facilities. The general slump in textile industry which continued during the year 1976-77 also adversely affected the working of the Corporation. The sales turnover for the year amounted to Rs. 31.64 lakhs only, and the Corporation incurred a net loss of Rs. 1.67 lakhs in 1976-77 as against a loss of Rs. 0.98 lakhs in the previous year.

6.76 The Government has appointed the Corporation as the agency for the implementation of three projects for the development of handloom in the State i.e. the two intensive development projects and the export production project. Each of the intensive development projects will cost Rs. 185 lakhs, and the export project Rs. 40 lakhs. The major share of the cost of the projects will be met by the Central Government. The Corporation has drawn up several schemes for implementing these projects and expects to implement the projects fully within a period of four years. The intensive development project located at Trivandrum will cover six southern districts, while the Cannanore Project will cover the remaining five districts in the northern region. The export production project will be located at Cannanore District.

6.77 The Corporation has formulated a novel scheme for assisting individual weavers in the State. According to this scheme the Corporation will make available to 6,000 individual weavers, loan assistance of Rs. 1500 each from the State Bank of India as working capital, at a low rate of interest of four per cent, for which the Corporation will stand guarantee. The loan assistance will be deposited by the weavers in the Corporation, which will supply inputs to them and procure their products. The loan instalment will be recovered

and remitted to the Bank by the Corporation. The response to this scheme from the weaving community is quite encouraging.

Kerala State Textile Corporation.

6.78. The activities of the Kerala State Textile Corporation were considerably curtailed since 1-4-1975, when the four mills managed by it viz., Alagappa Textiles, Cochin, Parvathi Mills, Quilon, Vijaya Mohini Mills, Trivandrum and Kerala Lakshmi Mills, Trichur, were taken over by the National Textile Corporation. But in January 1976, the Government of Kerala, faced with the problem of sick textile industries in the State, felt the need for an agency like the Kerala State Textile Corporation, to not only take over the management of sick textile mills, but also function as planning, co-ordinating and directing body for a healthy and rapid growth of this industry. Consequently steps that were being taken for bringing to an end the operation of the Corporation were discontinued, and its activities were revived from June 1977. The Corporation has since then initiated action to revive the closed textile mills in the State and the Trivandrum Spinning Mills which was closed for nearly two years was restarted early in August 1977. The Unit has started producing over 90,000 Kgs. of yarn per month. It is being modernised at a cost of Rs. one crore. The Corporation will shortly take over three sick mills viz., the Malabar Spinning and Weaving Co., Calicut, the Kottayam Textiles Ltd. Ettumanoor and the Prabhuram Mills Ltd., Chengannur. These mills which will provide an employment to over 15,000 persons will be modernised at a cost of Rs. 2.25 crores. In addition to the revival of closed textile mills, the Corporation has also plans to develop and diversify its activities in the fields of knitting garments, sewing thread, processing and marketing of cloth and yarn. The Corporation has developed a process which could convert the handloom clothes into superior varieties comparable to mill made goods.

Small Scale Industries.

6.79 Data relating to registration of small scale industries reveal that considerable progress has been achieved in the registration of units based on agriculture, forestry, mineral and marine resources. Though Units coming under engineering and chemical groups recorded significant increases in terms of number they are yet to strike their roots in Kerala. At present the important products manufactured in the small scale engineering industries in Kerala are agricultural implements, industrial machinery required for tile, wood, rubber and food processing industries, steel wires, cutlery, hardwares, tin containers, electrical appliances electronic instruments etc. Important products manufactured under chemical industries in the small industries sector are rubber products, drugs and pharmaceuticals, plastic conversion products, paints, varnishes matches etc.

6.80 (With a view to determining the requirements of small scale sector, and framing policies appropriate to further development of this sector, the Government of India, for the first time, conducted a national census of small scale units in 1973-74. The State Industries Department issued a call to unregistered units to register themselves so that all units could be covered by the census of small scale industries. The growth of small scale units in the State is presented in Table 6.8.)

TABLE 6.8
District-wise Registration of Small Scale Units

Sl. No.	District State	Registered upto 31-3-1975	Registered during 1975-76	Registered during 1976-77	Total registered as on 31-3-1977
(1)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum	1,073	219	164	1,456
2.	Quilon	981	123	176	1,280
3.	Alleppey	673	139	168	990
4.	Kottayara	578	112	129	819
5.	Idukki	57	44	39	140
6.	Ernakulam	1,304	257	271	1,832
7.	Trichur	979	118	171	1,268
8.	Palghat	249	70	40	359
9.	Malappuram	382	39	48	514
10.	Kozhikode	696	126	166	988
11.	Cannanore	1,062	140	148	1,350
Total		7,984	1,447	1,515	10,946

6.81 Eventhough in 1976-77 the number of newly registered units increased to 1,515 from 1,447 in the previous year, the growth rate of units during the period has been less. At present there are about 11,000 small scale industrial units in the State registered with the Small Industries Development Commissionerate.

6.82 (Inadequacy of capital resources, raw material shortage, marketing difficulties, adverse land-man ratio and poor technology are the major constraints in development of small scale industries in the State.) Industrial Development during the last two decades has not helped to bring about the desired change in the structure of the economy, thus resulting in increasing unemployment over the years. It is in this context that greater emphasis has been laid on promotion of small scale industries, which not only make less demand on scarce capital resources, but also create much needed employment opportunities. (A massive programme of industrialisation popularly known as 'Mini Industrial Estate Programme' was launched by the State on 1-4-1975 based on a strategy evolved by the Industries Development Commissionerate. The objectives of this programme were the setting up of 10,000 new small scale industrial units in the rural areas of the State, and revitalisation of 2500 existing sick units within four years.) As on 31-3-1977, 106 estates (36 under the first three series, and 70 under co-opera-

tive series) were set up. Each of these estates consists of ten small scale industrial units. (A Table showing the district wise number of mini-industrial estates set up and units commissioned as on 31-3-1977 is presented in Appendix 6.13). However in the implementation of this time-bound programme certain problems in respect of the quality of the projects and inadequacy of working capital cropped up. The Industries Development Commissionerate is taking steps to set them right. The Commissionerate is also studying the drawbacks and impediments in the implementation of this programme. Fresh guidelines have been prepared in consultation with all agencies connected with the programme and it is expected that the programme can now go ahead with full vigour.

6.83 (Arrangements for the revival of sick units have already been made by the Small Industries Commissionerate.) So far 120 cases have been referred to the technical consultants approved by the Industrial Reconstruction Corporation of India (IRCI) for the preparation of project reports. Rehabilitation reports have been received in respect of 90 units. The Small Industries Development and Employment Corporation along with the I.R.C.I. will share the finance required for obtaining institutional finance in equal proportion. Eventhough this has been agreed in principle I.R.C.I. has not made my commitment so far.

6.84 (At present there are four Rural Industries project functioning in the State. These projects continue to provide financial assistance to small scale units for the construction of factory buildings and for procuring machinery. These projects also render assistance to bigger units in obtaining bank finance by providing margin money to enable them to get assistance. The Rural Industries Programme is a centrally sponsored scheme, the expenditure on which is fully reimbursed by the Government of India.)

6.85 (Five districts of the State (Trivandrum, Alleppey, Trichur, Malappuram and Cannanore) have been declared as industrially backward. Certain concessions are offered by financial institutions like the Industrial Development Bank of India, Kerala Financial Corporation etc. to units set up in these districts.) Three among these back ward districts (Alleppey, Malappuram and Cannanore), have been declared as industrially most backward. Industries set up in these most backward districts are eligible for subsidy of 15 percent of their capital investment under a Government of India scheme. This scheme was in operation from 1972-73 and most of the units set up in these districts have availed themselves of this facility.)

6.86 The Government of India is making a concerted effort at rejuvenation of small scale industries. Under the revised Industrial Policy Statement the list of industries exclusively reserved for small scale

sector has been significantly expanded and will now include 504 items as against 180 items. The Industrial Policy Statement (December 1977) has also announced various other measures for the development of small scale sector. These measures, among other things, will include the regulation and monitoring of financial requirements of the small scale sector by the Industrial Development Bank of India and the setting up of an agency in each district to deal with all the requirements of small units in matters of service and support.)

Kerala State Small Industries Development and Employment Corporation Ltd.

6.87 (The Kerala State Small Industries Corporation and the Kerala Employment Promotion Corporation were amalgamated into the Kerala State Small Industries Development and Employment Corporation (SIDECO) with effect from 18-3-1977. This newly formed Corporation has twelve functional divisions for rendering a package of integrated services to small entrepreneurs. Procurement and distribution of raw materials to small scale industrial units continued to be the most significant activity of the Corporation.) In 1976-77, the sale of raw materials amounted to Rs. 195.25 lakhs as against Rs. 136.63 lakhs in 1975-76. The cost of machinery supplied under 'margin money scheme' to small entrepreneurs in the new industrial estates amounted to Rs. 55.17 lakhs and about 200 entrepreneurs were benefited by the scheme. Under this scheme the Corporation gives only 10 per cent of the margin money towards the cost of the machine and the balance amount is met by various banks. The scheme for the supply of machines under the hire purchase scheme has been dispensed with by the Corporation.

6.88 As on 31-3-1977 the Corporation had invested about Rs. 159 lakhs for the construction of various mini industrial estates. Thirty-four estates were constructed in eleven districts, apart from the seventy mini estates under the co-operative series.

6.89 Among the eight production and service units managed by SIDECO three of them viz., die casting unit, straw board factory and tile factory registered a loss. The other five units viz., Kerala Water Proof Products, Government Instrument Workshop, Service Workshop and Wood Workshop at Kollakadavu and Calicut together earned a profit of Rs. 6.12 lakhs. The ownership of 18 industrial estates of the conventional type was transferred to the Corporation during 1976-77. The Corporation collected Rs. 9.91 lakhs towards rent from these estates and spent Rs. 7.13 lakhs on administration of these estates in 1976-77. The Government Ceramic Centre, Mangattuparamba, continued to be managed by the Corporation on agency basis.

6.90 SIDECO's role in small industry development is in the nature of a catalyst. Emphasis is laid on the development of small industries which can create more employment opportunities in the rural areas. The mini industrial programme has helped to create an awareness about the need for industrialisation among the masses in rural areas. The Corporation as a promotion agency is taking considerable initiative in the implementation of the mini-industrial estates programme.

Kerala Financial Corporation

6.91 The Kerala Financial Corporation received 969 loan applications in 1976-77 for an aggregate amount of Rs. 1021.14 lakhs as against 611 applications for Rs. 1208.71 lakhs in 1975-76. The spurt in the number of loan applications is mainly the result of power loom units numbering over 300 sponsored by the Cochin Textile Complex. These units submitted separate applications to the Corporation. The total amount sanctioned by the Corporation decreased from Rs. 966.88 lakhs (in respect of 494 units) to Rs. 652.88 lakhs (in respect of 394 units) during 1976-77. Actual disbursement however increased to Rs. 537.30 lakhs as against Rs. 504.13 lakhs in 1975-76. A comparative statement showing the loan transactions of the corporation for the last three years is given in Table 6.9

TABLE 6.9
Loan Transactions of the Kerala Financial Corporation

Item	(Rs. in lakhs)					
	1974-75		1975-76		1976-77	
	No.	Amount	No.	Amount	No.	Amount
Applications received	506	1182.75	611	1208.71	969	1021.14
Applications sanctioned	357	697.78	494	966.88	394	652.11
Amount disbursed	250	265.54	405	504.13	302	537.30

6.92 (The Corporation, since its inception, has received 3740 applications worth Rs. 7511.73 lakhs, out of which 2448 applications for Rs. 4937.48 lakhs were sanctioned. The amount disbursed so far comes to Rs. 2787.75 lakhs to 1760 units. The Corporation is devoting special attention to the promotion of small scale industrial units in the State. About 65 per cent of the assistance has been utilised by the small scale sector. For the 1589 units in the small scale sector so far assisted by the Corporation an amount of Rs. 1754.10 lakhs (out of the total disbursement of Rs. 2,787.75 lakhs) was provided. A statement showing the cumulative figures of loan transactions of the Corporation till 31-3-1977 is furnished in Table 6.10.)

TABLE 6.10

Loan Transactions (Cumulative Figures) of the Kerala Financial Corporation

(Rs. lakhs)

Item	Small scale		Others		Total	
	No.	Amount	No.	Amount	No.	Amount
Applications received	3479	5492.09	261	2019.64	3740	7511.73
Applications sanctioned	2226	3370.92	222	1566.56	2448	4937.48
Amount disbursed	1589	1754.10	171	1033.65	1760	2787.75

6.93 Loans for acquiring buses and lorries were not sanctioned during the year, except in those cases where national permits were obtained by the applicants. The Corporation continued its policy of not rendering assistance to sea food industries, soft wood-based industries and steel re-rolling mills because of problems like lack of ready market and shortage of raw materials prevailing in these industries.

6.94 The State Government continues to provide interest subsidy to the Corporation for loans up to Rs. three lakhs disbursed to small scale units. But the reimbursement of subsidy by the Government is in arrears to the extent of Rs. 63.99 lakhs. The Corporation is also co-operating in the implementation of the massive industrialisation programme of the Government. A total of 118 units have been assisted under the Mini-Industrial Estate programme (with ten per cent margin on fixed assets) to the extent of Rs. 81.81 lakhs.

6.95 The total cumulative amount that fell due for repayment to the Corporation on 31-3-1977 according to normal repayment schedule was Rs. 1814.75 lakhs. The total cumulative amount received against this was Rs. 1154.59 lakhs. Thus the total default stood at Rs. 660.16 lakhs at the end of 1976-77. The percentage of arrears to total dues thus works out to 36.37 per cent compared to 29.78 per cent in the previous year. The default is spread among almost every type of industry. In the case of transport loans the default is comparatively less while in the case of small scale sector, which enjoys the liberalised scheme of assistance at the concessional interest rate of 5½% the default has become a major problem. Shortage of essential materials (eg. cement), hike in the purchase of machinery, shortage of raw materials, difficulties in obtaining adequate working capital from banks etc. have all contributed their share to many of the units falling sick or not forgoing ahead as originally planned. The Corporation is envisaging a scheme of more effective monitoring of units assisted by it and to decentralise the recovery functions by establishing district offices

6.96 The paid up capital of the Corporation as on 31-3-1977 is Rs. 219 lakhs comprising of ordinary share capital of Rs. 194 lakhs and special share capital of Rs. 25 lakhs. The pattern of share holding of the Corporation for the last two years is as follows:

	1975-76	1976-77
Government of Kerala (Rs. lakhs)	95.41	119.91
Industrial Development Bank of India	50.70	74.50
Banks, Insurance Companies etc.	21.84	22.54
Other parties	2.05	2.05
Total	170.00	219.00

6.97 During the year 1976-77, the Corporation earned a profit of Rs. 57.81 lakhs after meeting all expenses, as against Rs. 55.85 lakhs recorded during the previous year. After providing a sum of Rs. 20.90 lakhs for taxation the net profit was Rs. 36.91 lakhs an increase of Rs. 5.06 lakhs over that of the previous year.

Khadi and Village Industries.

6.98 The Kerala Khadi and Village Industries Board, disbursed Rs. 30.99 lakhs to societies/institutions engaged in Khadi industry and Rs. 51.29 lakhs for the development of other seventeen village industries 1976-77. Since its inception in 1957, till the end of March 1977 the Board extended financial assistance to 1315 co-operative societies and registered institutions for the development of Khadi and Village industries in the State.

6.99 There was an increase in the production of khadi cloth worth Rs. 7.47 lakhs in 1976-77 compared to 1975-76. Khadi worth Rs. 59.53 lakhs was produced by the units aided by the State Khadi & Village Industries Board. The sale value of Khadi realised during the year was Rs. 72.38 lakhs. The production and sale of other village industries products during 1976-77 amounted to Rs. 776.14 lakhs and Rs. 831.89 lakhs respectively (See Appendix 6.18). While the value of production of Khadi rose by 13.5 per cent during the year, the increase in the case of village industries was only 7.5 per cent. All village industries except non edible oil, soap, blacksmithy and carpentry hand made paper and village oil industries showed improvement during the year.

6.100 The total number of full time workers engaged in Khadi and Village Industries in the State in 1976-77 was 63,257. Of this the share of Khadi industry was only about 10 per cent. In addition to the full time workers 29,309 part-time workers and 3,041 casual labourers depend on Khadi & Village industries. All the workers together earned Rs. 433.70 lakhs as wages thus recording an increase of 4.8 per cent compared to 1975-76 (Rs. 413.20 lakhs).

6.101 Four major institutions, viz., Kerala Sarvodaya Sangh, Kerala Gandhi Smaraka Nidhi, Kerala Khadi and Village Industries Association, Trichur and Valluvanadu Development Society are functioning in the State for the development of Khadi industry. These institutions are receiving financial assistance directly from the Khadi and Village Industries Commission.

Minerals

6.102 The Department of Mining and Geology continued to carry out detailed investigations for graphite, limeshell, limestone, magnesite, clays, and brick and tile clays. Mineral surveys to locate possible occurrences were undertaken in Kulathupuzha reserve forest in Nedumangad Taluk of Trivandrum district and in north and south Wynad Taluks of Cannanore and Kozhikode districts. Investigations were also carried out to assess the reserves of limeshell in Taliparamba, Hosdurg and Cranganore Taluks and in Vembanad lake area, for graphite in Chirakadavu area of Kottayam district, for magnesite in Palghat district and for clays in Kundara and Mulavana of Quilon district and Amaravila, Maruthur and Kandanmkuzhi in Trivandrum district.

6.103 Among the various minerals available in the State, the beach sands like ilmenite, monozite, rutile,

zircon and sillimanite are being worked intensively. The Kerala Metals and Minerals Ltd. and the Indian Rare Earths are the two companies engaged in the exploitation of mineral sands in the State. The quantity of minerals exploited and sold during the year 1975-76 and 1976-77 in Kerala are presented in Table 6.11.

TABLE 6.11

Production and Sale of Mineral Sands

Item	1975-76		1976-77	
	Production (tonnes)	Sale (tonnes)	Production (tonnes)	Sale (tonnes)
(1)	(2)	(3)	(4)	(5)
Ilmenite	1,85,043	56,352	1,01,904	96,313
Brown ilmenite	404	150	265	189
Rutile	7,869	5,130	5,141	5,188
Monozite	238	82	117	205
Zircon	5,831	4,478	4,124	4,861
Sillimanite	1,316	504	1,723	1,179

6.104 China clay, fire clay, ball clay, limeshell and glass and white quartz sands are the other major minerals exploited in the State. Figures relating to the production and sale of these minerals for the last two years are provided in Table 6.12.

TABLE 6.12

Production and Sale of Major Minerals

Item	1975-76		1976-77		(Tonnes)			
	Production		Sale		Production		Sale	
	Raw	Processed	Raw	Processed	Raw	Processed	Raw	Processed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Glass and white quartz sand	58,818	--	42,030	..	65,750	..	62,984	..
China clay	61,743	20,126	59,073	16,111	97,892	24,701	98,594	25,331
Fire clay	7,409	20	5,545	..	759	..	423	..
Ball clay	2,764	--	1,780	..	160	--	237	..
Limeshell	1,21,034	--	88,209	..	92,046	..	90,336	..

6.105 The Kerala Mineral Exploration and Development project established with the assistance of the U.N.D.P. in the State started functioning from 1-4-1977. The Project envisages exploitation and evaluation of known and partially developed deposits of iron-ore, graphite, mica and gold and conduct of a general exploratory survey for other possible deposits over an area of 14,500 sq. Kms. in north and south Kerala. The objectives of the project include also the setting

up of a fully equipped modern geochemical laboratory and to train project counterpart personnel in modern techniques of mineral exploration and deposit evaluation. The duration of the project will be three years and nine months commencing from 1-4-1977. The project budget covers an assistance of 1.54 million dollars and a counterpart expenditure of Rs. 40 lakhs by the State Government.

CHAPTER VII

TRANSPORT AND COMMUNICATIONS

An Overview

Kerala has achieved significant progress in the matter of transport and communication facilities over the years. The most important recent development has been the introduction of the weekly direct flight from Trivandrum to Dubai on January 31st 1978. With the starting of the direct flight to Dubai, Trivandrum has achieved the rare distinction of being the fifth Indian city to operate international flights.

7.2. The road transport system in Kerala is fairly well developed. The total road length has increased from 74,820 kms. to nearly 81,600 kms. by the end of March, 1977. Of the total length of roads in the State, more than 15,200 kms. of roads are maintained by the Public Works Department of which 12,560 kms. are surfaced roads. The motor vehicle density in Kerala is high compared to many other States in India. It has 331 vehicles per hundred square kilometres of area and 533 vehicles per lakh of population during 1976-77. The passenger transport operations of in the State are mainly carried by private operators. The Kerala State Road Transport Corporation caters to about a third of the total passenger traffic in the State.

7.3 Railways play a significant role in Kerala transport system. Following the conversion of Ernakulam Trivandrum section from metregauge to broad-gauge, the passenger traffic earnings has gone up by 78 per cent and the goods traffic earnings by 68 per cent. The decision to set up a new Railway Division with Trivandrum as the headquarters is a welcome development. Among the new lines to be constructed, Ernakulam-Alleppey coastal link deserves top priority.

7.4 The Cochin Port continues to occupy a dominant position in the sphere of coastal as well as foreign trade. Both imports and exports increased during the year. The volume of traffic handled at this Port was 4.77 million tonnes in 1976-77 as against 4.26 million tonnes in 1975-76, an increase of 11.95 per cent over the previous year.

7.5 Kerala is fairly well placed in the sphere of communication facilities like posts and telegraphs and telephones. The average area served by a Post Office is 10.2 sq.kms. against the all India figure of 27.4 sq.kms. The population served by a Post Office on an average is 5,210. A record number of 7,893 net telephone connections were added in 1976-77 and for achieving

this 9,865 new telephone connections were provided in the State. The State had only 29 STD routes at the commencement of the year, but during the year 46 new routes were added to the STD network.

7.6 Kerala has an extensive system of inland canals. The total length of navigable waterways in the State is about 1905 kms. which is nearly one-seventh of the navigable length of inland waterways system of the country. But these waterways need considerable improvement if they are to constitute a major mode of transportation.

Roads

7.7 Kerala has a fairly well developed road network. Though road mileage is comparatively higher in Kerala, the settlement pattern and shortage of railway lines in the State would indicate the necessity for a wider and better network of roads.

7.8 The total road length in Kerala as on 1-4-1977 is estimated at 81,584 kms. (See Table 7.1) This road length includes National Highways, roads held by the Public Works Department, Panchayats, Irrigation and other agencies in the State.

TABLE 7.1

Roads in Kerala under different Departments as on 1-4-1977

Sl. No.	Category	Length of Roads as on 1-4-1977 (Kms.)
(1)	(2)	(3)
1.	National Highways	837
2.	Public Works Department Roads	15,239
3.	Panchayats	58,849
4.	Kerala State Electricity Board	522
5.	Military	78
6.	Community Development and National Extension Service Blocks	2,905
7.	Railways	66
8.	Irrigation Department	404
9.	Municipalities and Corporations	1,547
10.	Other Departments	1,137
Total		81,584

Note: Data on roads under P.W.D. Irrigation, National Highway and Panchayats relate to the year 1977. Other data relate to 1976.

Out of the estimated total length of roads in the State more than 15,200 kms. of roads are maintained

by the Public Works Department and of this 12,560 kms. are surfaced roads. The length of Public Works Department roads increased from 14,870 kms. in 1975 to 15,239 kms. in 1977. The length of Panchayat roads increased from 52,561 kms. in 1972 to 58,849 kms in 1977. The Public Works Department roads are classified under four categories viz., State highways, major district roads, other district roads and village roads. The category-wise length of these roads as on 30-6-1977 is provided in Table 7.2.

TABLE 7.2

Category-wise Distribution of Public Works Department Roads

Sl. No.	Classification of roads	Total length (Kms.)
(1)	(2)	(3)
1.	State highways	2,028
2.	Major district roads	5,324
3.	Other district roads	6,666
4.	Village roads	1,237
Total		15,255

7.9 The district-wise breakup of the Public Works Department roads as on 30-6-1977 is indicated in Table 7.3. The detailed district-wise breakup of Public Works Department roads into State highways, major district roads, other district roads and village roads is provided in Appendix 7.1. The increase in the length of roads under P.W.D. over the last few years has only been marginal because the main programme of the P.W.D. has been the construction of bridges and improvement of roads under its control so as to bring them to proper standards.

TABLE 7.3

District-wise Distribution of Public Works Department Roads

Sl. No.	Districts	Length in Kms.
(1)	(2)	(3)
1.	Trivandrum	1,360
2.	Quilon	2,284
3.	Kottayam	1,597
4.	Idukki	1,183
5.	Alleppey	1,092
6.	Ernakulam	1,754
7.	Trichur	1,296
8.	Palghat	1,106
9.	Malappuram	988
10.	Calicut	1,016
11.	Cannanore	1,879
Total		15,255

7.10 An outlay of Rs. 22.82 crores was provided for roads and bridges in the Fifth Five Year Plan (1974-79.) An expenditure of Rs. 13.96 crores (61 percent

of the outlay) was incurred during the first three years of the Fifth Plan period. The anticipated expenditure on roads and bridges for 1977-78 is Rs. 5.95 crores.

7.11 Kerala is likely to get enhanced Central assistance for the construction of the rural roads and improvement to the National Highway system. An all out effort will be made to bring all the villages into the national mainstream by roads as early as possible. A sum of Rs. 5 crores was earmarked for rural roads in the State during the four years of the Fifth Plan ending 31-3-1978. The development of the National Highway-17 along the coast between Cochin and Pudukonnam which created a bottleneck in the region would help to improve the road transport facilities in the region.

Road Transport*Motor Vehicles Registration*

7.12 The motor vehicle density in Kerala is high compared to many other States in India. It has 331 vehicles per 100 sq. kms. of area and 532 vehicles per lakh of population in 1976-77. The corresponding all-India figures in 1973-74 are 64 and 362 respectively. The total number of motor vehicles registered in the State as on 31-3-1977 was over 1.29 lakhs. Trivandrum District has the largest number of vehicles (26,631), and it is followed by Ernakulam (21,090) and Kozhikode (15,981). While Quilon, Trichur and Palghat Districts have more than 10,000 vehicles on the roads, the other districts have only less than 10,000 vehicles. Motor vehicles in Kerala consist of 41,875 cars, 32,031 motor-cycles, 17,165 goods vehicles, 12,257 taxi cars and 25,865 other vehicles. As regards cars, Trivandrum leads the districts with 9,486 cars followed by Ernakulam with 7,355, Kozhikode with 4,614 and Quilon with 4,448. Details regarding the number of motor vehicles are furnished in Appendix 7.2.

7.13 The total revenue from motor vehicle taxes and fees collected under the Motor Vehicles Tax and Taxation of Passengers and Goods Act increased from Rs. 1081 lakhs in 1975-76 to Rs. 1,765 lakhs in 1976-77. The revenue from this source works out to 9.8 per cent of the total estimated revenue receipts for 1976-77. The cumulative total of arrears under various Motor Vehicle Taxes on 31-3-1977 stood at Rs. 1071.80 lakhs as against Rs. 56.74 lakhs at the end of 1975-76. The receipts under non-motor vehicles was Rs. 7.03 lakhs as against Rs. 7.12 lakhs during 1975-76.

Passenger Transport

7.14 The passenger transport operations in Kerala are mainly carried out by the private operators, especially in the northern districts of Kerala. The State owned Kerala State Road Transport Corporation possesses only about 30 per cent of the total number of vehicles in the State.

7.15 The number of stage carriages in the State increased from 8,268 in 1975-76 to 8,651 in 1976-77 and the stage carriages per lakh of population in 1976-77 was 36 as against 35 in 1975-76. The number of vehicles in the nationalised sector was only 2,587 out of a total of 8,651 passenger vehicles in the State. The percentage of nationalised vehicles therefore works out to only about 30 per cent of the total number of vehicles on road. This ratio is low compared to the all India ratio which is around 42.

7.16 The Kerala State Road Transport Corporation is the only public sector undertaking engaged in road transport services. It caters to about a third of the total passenger traffic in the State. The fleet strength of the Corporation increased from 1892 buses at the end of the Fourth Five Year Plan (1973-74) to 2,480 buses at the end of 1976-77. The number of bus schedules increased from 1846 at the end of March 1976 to 2,078 at the end of March 1977 and the number of routes increased from 2,568 to 3,024 during this period. Consequently the route length increased by 28,154 kms., and the distance operated by 241.09 lakhs kms., during the year. More than 5111 lakhs of passengers were carried by the State Transport services during 1976-77 (See Appendix 7.3). The number of passengers show a decrease of nearly 72 lakhs during the year. This is attributed partly to the enhancement of fares from 4 ps/km. to 5 ps/km. It may also be partly due to the increasing competition from Railways. This aspect, however, needs further investigation. The average distance travelled by a passenger was 14.9 km. in 1976-77 as against 14.2 kms in the previous year. The average earnings per passenger increased from 75 ps. in 1975-76 to 76 ps. in 1976-77.

7.17 Twenty one routes were nationalised during the year under review. The number of buses commissioned for service in 1976-77 was 256 as against 164 in the previous year. The fleet strength is expected to increase to 2616 at the end of 1977-78. During 1978-79 the Corporation has programmed to purchase 535 buses at a cost of Rs. 8 crores, 200 buses for augmentation and 335 for replacement. The programme for 1978-79 is mainly intended to meet the increased traffic in existing routes. It is also proposed in 1978-79 to provide the necessary infrastructure facilities to cope with the increase in traffic.

7.18 The capital contribution to the Corporation by the State Government was Rs. 13.88 crores and by Railways Rs. 5.30 crores on 31-3-1977. Thus the total capital investment of the Corporation works out to Rs. 19.18 crores. The gross revenue of the Corporation in 1976-77 was Rs. 4068.45 lakhs as against Rs. 3107.80 lakhs in 1975-76. The corresponding figures relating to gross revenue expenditure were Rs. 4181.68 lakhs and Rs. 3529.39 lakhs. Thus the

net deficit of the Corporation in 1976-77 was Rs. 113.23 lakhs as against Rs. 421.59 lakhs in the previous year.

7.19 The Corporation was operating 2299 schedules per day as on 30-11-1977 over a distance of 6,55,425 scheduled kms. It is operating various types of services such as city services, mofussil services, Fast Passenger Services, Delux Services, Express and Terra Plane Services. About 14 lakhs of passengers make use of the services run by the Corporation every day. The growth of the Corporation during the past twelve years has been substantial. The magnitude of expansion of the Kerala State Road Transport Corporation operations over this period is evident from Table 7.4.

TABLE 7.4
Operation of the Kerala State Road Transport Corporation
(1964-65 to 1976-77)

Sl. No.	Items	1964-65	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)
1.	No. of routes under operation	553 (100)	2,322 (420)	25,68 (464)	3,024 (547)
2.	Route distance (Km)	17,832 (100)	93,770 (526)	109,570 (614)	137,724 (772)
3.	No. of schedules operated	661 (100)	1726 (261)	1 846 (279)	2,078 (314)
4.	Gross Kilometres operated	608.61 (100)	1563.30 (257)	1798.90 (296)	2039.99 (335)
5.	Passengers carried (lakhs)	1399.06 (110)	4216.80 (301)	5183.37 (370)	5111.43 (365)

Note: Figures in brackets represent indices.

Goods Transport

7.20 In the absence of adequate data regarding goods transport by road, the number of lorries registered in the State can serve as an important index of growth of goods transport in the State. The lorry registration figures do not however reflect the increase either in the average capacity of the lorries or in the average run per year per lorry. But the number of lorries registered every year is indicative of the total volume of goods traffic by road. The number of public carrier vehicles registered in the state during the seven year period 1971 to 1977 is furnished in Table 7.5

TABLE 7.5
Registered Public Carrier Vehicles

Year	Number of vehicles	Index
(1)	(2)	(3)
1971	10 062	100.0
1972	10 935	108.7
1973	11 458	113.9
1974	12 007	116.3
1975	12 071	119.9
1976	12 867	127.8
1977	13 069	129.9

7.21 It can be seen from the Table that there had been an increase of over 3,000 public carrier vehicles between 1971 and 1977, i.e. an average increase of about 430 vehicles per annum.

7.22 A scheme for the grant of National Permits aimed at facilitating free flow of goods traffic through out the country was introduced in 1975-76. This was in addition to the existing inter-state and zonal permit system. A quota of 250 permits was originally sanctioned under National Permit scheme which was later raised to 400 for the State. A total of 176 National Permits have been issued till 31-3-1977 as detailed under:—

1. Existing inter state operators	56
2. Existing intra state operators	56
3. Ex-army personnel	6
4. Unemployed drivers	24
5. Other new entrepreneurs	34
	176

Railways

7.23 Railways play a significant role in Kerala's transport system. The State has at present 773.64 kms. of broadgauge railway lines and 112.71 kms. of metre-gauge railway lines. The new Kerala-Karnataka Express Service linking Trivandrum and Delhi directly is a welcome development as far as passenger traffic is concerned. This has accelerated the tempo of tourist traffic to the State. Following the conversion of the Ernakulam-Trivandrum section from metre-gauge to broadgauge the passenger traffic earnings has gone up by 78 per cent and the goods traffic earnings by 68 per cent. The Railway Ministry has also therefore decided to set up a new Railway Division with Trivandrum as headquarters.

7.24 The Rs. 22.7 crore Trivandrum-Tirunelveli broadgauge link via Nagercoil with a branch line to Kanyakumari (160 kms.) to provide a North-South direct rail connection from Kashmir to Kanyakumari is under implementation. A sum of Rs. 13.10 crores has been spent on this project till 31-3-1977. This is the only new broadgauge line whose work is in progress at present in the Southern Railway. The cost of construction of this project works out to Rs. 14.2 lakhs per km. For construction of the line from Trivandrum to Parassala (28 kms. falling within Kerala), an expenditure of Rs. 1.5 crores was incurred in 1976-77. An equal amount of expenditure is anticipated in 1977-78. The Trivandrum-Nagercoil Section, having a length of 71 kms. is expected to be commissioned by December 1978 and the Nagercoil-Kanyakumari line by December 1979. Under second line construction it may be mentioned that doubling of the Ernakulam-Alwaye route has already been completed. The second line construction from Alwaye to Shoranur is in progress.

7.25 Ernakulam-Alleppey and Guruvayur-Trichur rail links are among the new lines for which surveys have already been completed. The Railway Ministry has given top priority to the 56 km. Ernakulam-Alleppey rail line which is among the 25 new lines included in the priority list sent to the Planning Commission. This line is estimated to cost Rs. 4.8 crores and is expected to give a return of about 18 percent. The Kerala Government has offered to provide the necessary land and sleepers required for this line. The Planning Commission's approval is awaited. The economic viability of electrifying railway lines in the Olavakkot-Trivandrum section is also being studied by the Railway Ministry.

Air Transport

7.26 The State has at present two airports at Trivandrum and Ernakulam. The northern part of the State has no air transport facilities and hence the State Government is very keen to develop an airport at Calicut to cater to the needs of the people of Malabar.

7.27 The inauguration of the weekly direct flight from Trivandrum to Dubai from Trivandrum airport on January 31, 1978 is a major event in the sphere of air travel in Kerala. A second Boeing service between Trivandrum and Dubai has also been started recently. This new flight operates on Thursdays thus making the Trivandrum-Dubai air link a bi-weekly affair. A booking office at Calicut is among the expansion plans for Air India in Kerala. An estimated number of 3,000 people from the State travel from Trivandrum to the Gulf countries every month. Till now this traffic was routed through Bombay. The new service will not only reduce the flying time from Kerala but also cease the pressure on the Trivandrum-Bombay sector. With the starting of the direct flight to Dubai, Trivandrum has achieved the rare distinction of being the fifth Indian City to operate international flights. The other four are Bombay, Delhi, Calcutta and Madras.

7.28 The Civil Aviation Department has developed Trivandrum aerodrome for regular Boeing-737 operations and occasional Boeing 707 operations at a cost of Rs.80 lakhs. The airport runway which had a length of 6,000 ft. has been strengthened and also extended to 8,500 ft. Preliminary work has been taken up to further strengthen the runway for regular Boeing 707 operations. The terminal building at Trivandrum is being extended to cope with the increased traffic both in domestic and international sectors. Additional room is being provided for customs, health and immigration authorities. Further improvement of the Trivandrum airport to make it suitable for operations with large aircraft on a long term basis is on the anvil. This includes the introduction of Air-bus flights by Indian Airlines.

which would go a long way in providing the necessary capacity to meet the fast growing air traffic demand of this area. The Centre has decided to develop Trivandrum airport suitable for air-bus flights. To meet this requirement the runway will be strengthened and extended to 10,000 feet.

Inland Navigation

7.29 The total length of navigable waterways in the State is about 1905 kilometres which is nearly one-seventh of the navigable length of inland waterway system of the country. The backwaters form a specially attractive and economically valuable asset, the biggest of which is the Vembanad lake which opens out into the Arabian Sea at Cochin Port. The West Coast Canal System formed by linking a series of backwaters and lakes flows through every district in the State. The total length is approximately 560 kilometres including the length of nearly 48 kilometre between Azhikkal and Badagara Section. There is much navigation scope in the west flowing rivers (41 Nos.) of the State. In the summer season all these rivers are only partly navigable. Silting is the main problem in these rivers and canals. Rivers and canals need constant dredging to make them fit for regular navigation.

7.30 The State Water Transport Department was operating services on routes north of Quilon upto Ernakulam and in Kuttanad area. The Department was operating services in 60 routes covering a gross route distance of 6145 kms. It has in possession 81 passenger boats having a total seating capacity of 6547 persons. Fifty-six boats were in operation and 87.45 lakh passengers were carried during the year 1976-77. The total revenue collected was Rs. 57.27 lakhs compared to Rs. 56.21 lakhs in 1975-76. The total expenditure in 1975-76 increased from Rs. 64.02 lakhs to Rs. 69.28 lakhs in 1976-77.

7.31 The Kerala State Road Transport Corporation possesses 11 boats for operating their ferry services in the Cochin Harbour area. The seating capacity of these boats is 1,523. The Ernakulam-Mattancherry route and the Bolgatty-High Court routes are the major routes operated by the K. S. R. T. C. Nearly 89 lakhs passengers made use of the service during 1975-76 and the average earnings per passenger was 18.2 paise. In 1975-76 the expenditure incurred was Rs. 26.91 lakhs as against revenue yield of Rs. 16.60 lakhs. This wing of the Corporation has been sustaining losses over the past several years.

7.32 The States inland waterways need considerable improvement if they are to constitute a major mode of transportation. They need widening and deepening at several points. All the dredgers in the State are more than thirty years old. These have to be

replaced by suitable modern dredgers or other equipment capable of operating in shallow waters. About 21,000 country crafts having a registered tonnage of nearly 1.5 lakhs and over 200 motor boats ply on the inland waterways of the State. Nearly 1.20 crores of passengers (including passengers in private sector) were carried during the year 1974-75. The percentage of goods moved by waterways is rapidly declining. The most important section of the West Coast Canal is the Cochin-Quilon section which carries about 60 per cent of the total tonnage of cargo carried by the inland waterways of the State. All towns and industrial centres of the State are linked to this canal so that all places in midlands as well as the coast are connected with the minor ports and Cochin Harbour. Water transport which used to be practically the only means of transport till recent times, dwindled into insignificance with the development of Road Transport and Railways. A traffic survey to find out navigational potentialities of the State and to identify the quantity and quality of goods that could be diverted through the waterways is urgently necessary.

Ports and Harbours

7.33 The Kerala ports handled 13.55 lakh tonnes of export commodities and 36.58 lakh tonnes of import commodities during 1976-77. Both exports and imports showed increase during the year. Exports constituted 27.34 percent of the total volume of traffic during 1976-77 as against 23.72 percent in 1975-76. The principal commodities exported included petroleum, cashew kernels, tea, coir products etc. The main commodities imported were crude petroleum, fertilisers, coal and food-grains.

Cochin Port

7.34 Cochin port continued to occupy the dominant position in the handling of traffic during 1976-77. The operational efficiency of the port was satisfactory since there was no strike or industrial dispute of a serious nature during this period. The number of ships that called at the port increased considerably compared to the previous year. A total of 961 steamers entered the port against 892 in 1975-76. But there was a decrease in the number of sailing vessels that called at the port during 1976-77.

7.35 The volume of traffic handled at this port was 4.77 million tonnes in 1976-77 as against 4.26 million tonnes in 1975-76, an increase of 11.95 percent over the previous year. Both imports and exports increased during the year. Imports increased from 3.32 million tonnes to 3.57 million tonnes while exports increased from 0.94 million tonnes to 1.20 million tonnes. (See Appendices 7.4 & 7.5). The value of trade handled during 1976-77 increased by Rs. 140.90 crores or by 19.5 percent over that in the previous year.

7.36 Both the total income and total expenditure of the port increased considerably during 1976-77. Income during the year was Rs. 1279.49 lakhs as against Rs. 1051.31 lakhs in the preceding year. The total expenditure of the port was Rs. 945.99 lakhs as against Rs. 828.17 lakhs in 1975-76. The revenue account of the port thus closed with a net surplus of Rs. 149.61 lakhs as against a net surplus of Rs. 222.38 lakhs in the previous year. The main reason for decrease in the surplus was due to contribution to capital account from 1973 to 1977 and repayment of loans from 1973 to 1976. The total capital expenditure (Plan and Non-Plan) of the port was Rs. 205.44 lakhs as against an approved outlay of Rs. 252.52 lakhs during 1976-77.

7.37 The approved annual plan outlay for Cochin port for 1976-77 was Rs. 235 lakhs. As against this the expenditure was only Rs. 163.41 lakhs (69.5 per cent of the total outlay). The reasons for the short-fall in expenditure are the non-receipt of Government sanction as in the case of Super Tanker oil Terminal Project and the poor progress of works connected with grab dredger, water barge and the procurement of fire-float and high power tug.

7.38 The value of capital assets of the Port Trust including fisheries harbour at original cost increased from Rs. 2653.77 lakhs to Rs. 2908.86 lakhs as on 31-3-1977.

Intermediate and Minor Ports

7.39 Apart from the major port at Cochin the States coastline (580 Km.) is served by three intermediate ports at Calicut, Alleppey and Neendakara and nine minor ports which handle coastal and overseas traffic. While all the three intermediate ports were responsible for earning foreign exchange in 1975-76 only Alleppey and Calicut ports featured in export trade in 1976-77. Fifteen coastal steamers and 21 foreign steamers with an aggregate tonnage of about 1 lakh tonnes entered the intermediate and minor ports of Kerala in 1976-77 as against 27 coastal steamers and 38 foreign steamers having an aggregate tonnage of 2.12 lakh tonnes in 1975-76. Also, 905 coastal sailing vessels and 32 foreign vessels with a tonnage of 1.03 lakh tonnes called on the ports during 1976-77 compared to 741 coastal sailing vessels and 568 foreign vessels with tonnage of 0.91 lakh tonnes in 1975-76. (See Appendix 7.6)

7.40 The number of steamers which entered the ports declined from 65 in 1975-76 to 36 in 1976-77. Only one steamer called at Alleppey Port during 1976-77. The number of foreign sailing vessels which called on Kerala Ports decreased from 568 in 1975-76 to 32 in 1976-77. The total tonnage of cargo handled at the Ports in 1976-77 was 2.46 lakh tonnes consisting of 1.58 lakh tonnes of exports and 0.88 lakh tonnes of imports.

Nearly 55 percent of the cargo was handled by the port of Calicut. The revenue collections at intermediate and minor ports during 1976-77 were Rs. 13.61 lakhs as against Rs. 15.34 lakhs in 1975-76 (See Appendix 7.7.)

Kerala Shipping Corporation

7.41 Kerala Shipping Corporation set up in May 1974 has an authorised capital of Rs. 15 crores. Its paid up capital at the end of 1976-77 was Rs. 170.90 lakhs. The Government of Kerala holds shares worth Rs. 153 lakhs.

7.42 In February 1976 the Corporation acquired its first vessel 'M.V. Kairali' with a dead weight tonnage of 21,550. The price of the vessel was 62.10 lakhs dollars. A dollar loan of 56 lakhs was availed from Chase Manhattan Bank, New York, and the remaining amount was paid from Corporation's own funds collected through share capital.

7.43 During the year 1976-77 'Kairali' undertook three round voyages and the gross freight earned was Rs. 145.40 lakhs. A loan of Rs. 4.2 crores was granted by the Shipping Development Fund Committee to enable the Corporation repay the loans availed from Chase Manhattan Bank. Owing to the fluctuating and declining market conditions the Corporation deferred the acquisition of more ships during 1976-77. The operational results of 'Kairali' in 1976-77 was not quite satisfactory. Apart from the international market conditions, the heavy initial investment and consequent high interest commitment and depreciation are the reasons for this difficult state of affairs during 1976-77.

Communications.

7.44 Kerala has at present 16 Postal Divisions, 2 R.M.S. Divisions, 2 Postal Stores Depots Units and one Mail Motor Service Division Unit. As on 31-3-1977 there are 4,103 Post Offices functioning under the categories head post offices, sub post offices and branch post offices in the State. The expansion of postal network since 1961 is shown in Appendix 7.8. The average area served by a post office is 10.2 sq.kms against the all India figure of 27.4sq.kms. The population served by a post Office on an average is 5210. (See Appendix 7.9). Division-wise data relating to post offices in the State are presented in Appendix 7.10.

7.45 Kerala has 72 mobile post offices and with the installation of 1,392 more letter boxes no customer anywhere in the State will have to travel more than one and a half kilometres to post a letter and every village receiving at least one letter a day will have a letter box. Eighty-four new post offices were opened during 1976-77. Notable among

the achievements during 1976-77 was the construction of 12 low-cost post office buildings.

7.46 Kerala today is well served by telex and telecommunication facilities. The Kerala Telecommunication Circle is divided into the following nine Telegraph and Telephone Divisions.

<i>Telegraph Divisions</i>	<i>Telephone Divisions</i>
Trivandrum	Trivandrum
Alleppey	Calicut
Kottayam	
Ernakulam	
Trichur	
Calicut	
Cannanore	

These divisions have twenty-nine Telegraphs and Telephone Sub Divisions. Five of the sub divisions were formed during 1976-77. The Telegraph Engineering Division was also formed during 1976-77. Steps are being taken to upgrade Trivandrum Telephone Division as a Telephone District like Ernakulam.

7.47 A record number of 7893 net telephone connections were added in 1976-77 and for achieving this 9865 new telephone connections were provided in the State. The annual target fixed by the Department for the year was thus exceeded by a wide margin. An important event during the year was the opening of a new 25 lines Exchange in the village of Kelakom where even electricity has not reached till date. A 50-line Telex at Kottayam and four new Trunk Exchanges at Vaikom, Idukki, Nedumangad and Tamara-seri were opened and Trivandrum cross-bar exchange

was expanded by 2,000 lines during 1976-77. The increase of STD service in the State was also highly significant during 1976-77. The State had only 29 STD routes at the commencement of the year; but during the year 46 new routes were added to the S.T.D. net work.

7.48 The revenue collection efficiency of Kerala Circle was the highest in India during the year 1976-77. It registered an increase of 56 per cent over the previous year. The total operating revenue was Rs. 12.5 crores and the total expenditure including working expenses and capital outlay was Rs. 11.1 crores. A well organised Management information System (M. I. S.) is functioning in Kerala Circle which enables the Department to assess the performance of the various activities. Figures relating to the telephone exchanges and telephones in the State are provided in Table 7.6

TABLE 7.6

Item	As on 31st March				
	1961	1966	1974	1976	1977
(1)	(2)	(3)	(4)	(5)	(6)
No. of telephone exchanges	71	170	268	302	339
No. of telephones (in '000)	14.00	24.90	52.60	55.49	73.49

7.49 Kerala has a density of 2.31 telephones per Sq. km. as against the all-India average of 0.7 per sq. km. It has on an average 3.1 telephones per thousand inhabitants as against only 2.8 telephones at the all-India level.

EXPORT IMPORT TRADE

India's Foreign Trade

The year 1976-77 registered substantial growth in India's exports which rose by more than 30 per cent from Rs. 3942 crores in 1975-76 to Rs. 5142 crores in 1976-77. In the corresponding period imports declined by 2.1 per cent, and for the first time since 1973-74, a trade surplus of Rs. 91 crores has been recorded in the foreign trade of India. The commodity-wise data on export trade of India is given in Table 8.1

TABLE 8.1

Commodity-wise Export Trade of India—1975-76 and 1976-77

(Rs. Crores)

Principal Commodities	1975-76		1976-77		Per-centage to total increase
	Value	Per-centage to total	Value	Per-centage to total	
(1)	(2)	(3)	(4)	(5)	(6)
1. Engineering goods	409	10.4	554	10.8	+35.4
2. Iron ore	214	5.4	239	4.7	+11.7
3. Jute manufactures	248	6.3	201	3.9	-19.0
4. Cotton manufactures	304	7.7	511	9.9	+68.0
5. Tea	237	6.0	293	5.7	+23.7
6. Fish	127	3.2	180	3.5	+41.7
7. Sugar	472	12.0	148	2.9	-68.6
8. Leather and leather manufactures including foot-wear	223	5.7	292	5.7	+30.9
Total including others	3942	100.0	5142	100.0	+30.4

8.2 The growth in exports was due to several factors, such as improved supplies of inputs, better utilisation of capacity and increasing competitiveness of Indian products in international market. The growth was shared by a large number of commodities, traditional as well as non-traditional. Commodity-wise data indicate that the exports of cotton manufactures, engineering goods, leather and leather products, handicrafts, iron and steel, marine products, cashew kernels, coffee and rubber products recorded substantial increases, while sharp decline took place in the exports of sugar, jute manufactures and silver. Some of the commodities such as tea and coffee were substantially benefited by increases in their prices in world markets. Despite such an impressive pick up in exports in recent times, India's share in total world exports remained at a low level of 0.5 per cent in 1976-77.

8.3 The country-wise exports from India are furnished in Table 8.2. During 1976-77 also U. S. A. continued to be the best customer of India closely followed by Japan and U. K. The exports to Iran have substantially decreased during the year compared to the previous year.

TABLE 8.2

Country-wise Exports from India during 1975-76 & 1976-77

(Rs. Crores)

Countries	1975-76	1976-77
(1)	(2)	(3)
U.S.A.	508	560
Japan	427	540
U.S.S.R.	413	440
U. K.	404	510
Iran	271	145

8.4 During the year 1976-77, India's imports declined to Rs. 5051 crores from Rs. 5158 crores of the previous year. This was mainly due to the sharp decline in import of wheat and other foodgrains and iron and steel. Though fertilizers and chemicals together registered a 5.9 per cent increase during the year, the import of fertilizers alone declined to Rs. 190 crores from Rs. 435 crores of the previous year. The import of non-ferrous metals registered a 63.3 per cent increase, while the increase was moderate in the case of petroleum, machinery and transport equipments. The commodity-wise distribution of imports is given in Table 8.3.

TABLE 8.3

Commodity-wise Imports

(Rs. Crores)

Major import items	1975-76	1976-77	Percentage increase
(1)	(2)	(3)	(4)
1. Wheat	1207	807	(-) 33.1
2. Petroleum	1226	1412	(+) 15.2
3. Fertilisers including chemicals	612	648	(+) 5.9
4. Iron and steel	306	220	(-) 28.1
5. Non-ferrous metals	98	160	(+) 63.3
6. Machinery and transport	887	979	(+) 10.4
Total (including others)	5158	5051	(-) 2.1

Kerala's Exports

8.5 The major commodities produced by Kerala and the details of their export are discussed in the following paragraphs. The trends in export of some of the important commodities and their earnings are given in Table 8.4.

8.6 As will be seen from Table 8.4 the value of exports from Kerala during 1976-77 amounted to nearly Rs. 400 crores. Item-wise details are discussed below:

TABLE 8.4
Kerala's Export of Principal Commodities (Provisional)

Principal Commodities (1)	1975-76		1976-77		Percentage increase over 1975-76	
	Quantity in tonnes (2)	Value in Rs. crores (3)	Quantity in tonnes (4)	Value in Rs. Crores (5)	Quantity (6)	Value (7)
1. Marine Products	31588	67.62	31595	90.12	+0.02	+33
2. Spices of which	28091	39.38	22704	43.01	-19	+9
(i) Pepper	23197	32.50	19365	36.47	-16	+12
(ii) Cardamom	437	4.00	253	3.87	-42	-3
(iii) Ginger	2638	2.12	1683	2.02	-36	-5
(iv) Turmeric	1819	0.76	1403	0.65	-23	-14
3. Cashew Kernels*	53197	104.78	36725	135.76	-31	+29
4. Cashew Shell Liquid*	5250	1.06	2099	0.65	-60	-40
5. Coir Products	37284	19.35	43935	22.58	+18	+16
6. Tea**	42315	41.91	52360	61.05	+23	+44
7. Coffee**	21455	21.04	13449	33.56	-37	+59
8. Handloom	N.A.	N.A.	..	2.68	..	..
9. State Government concerns & other Government of India concerns	N.A.	N.A.	..	7.73	..	..
Total	2,19,180	295.14	2,02,867	397.14	-7	+34

* Data relates to January—December of 1976 & 1977.

** Exports through Cochin Port only.

Marine Products

8.7 The export of marine products during 1976-77 has recorded an all-time high both in quantity and value realised. As much as 66,750 tonnes of marine products worth Rs. 189.12 crores have been exported during the year. This is more than 22 per cent in quantity and 52 per cent in terms of value realised, higher when compared to the corresponding figures

of the previous year. In terms of quantity the share of Kerala decreased to 31,595 tonnes compared to the record of 31,683 tonnes of the previous year. Kerala's contribution to marine products export of India during 1976-77 comes to 47.3 per cent in respect of quantity and 47.7 per cent in respect of value. Table 8.5 shows the details of exports of marine products from Kerala and India from 1964-65 to 1976-77.

TABLE 8.5
Export Growth of Marine Products from India and Kerala from 1964-65 to 1976-77

Year	Export from Kerala		Export from India		Average Unit value realisation Rs./Kg.
	Quantity in (tonnes)	Value (Rs. crores)	Quantity in (tonnes)	Value (Rs. crores)	
1964-65	9,750	5.04	21,122	7.14	3.38
1965-66	9,561	6.01	15,295	7.06	4.62
1966-67	13,175	14.64	21,116	17.37	8.29
1967-68	15,245	16.75	21,907	19.72	9.00
1968-69	18,481	20.25	26,311	24.70	9.21
1969-70	22,172	27.23	31,695	33.46	10.56
1970-71	23,896	27.57	35,883	35.07	9.77
1971-72	21,892	33.70	35,523	44.55	12.54
1972-73	25,797	41.97	38,903	59.72	15.35
1973-74	31,561	57.76	52,279	39.51	17.12
1974-75	25,280	39.58	45,099	68.41	15.17
1975-76	31,683	67.62	54,463	124.53	22.86
1976-77	31,595	90.12	66,750	189.12	28.33

8.8 Table 8.6 gives the item-wise share in percentage of exports of marine products of India from 1972-73 to 1976-77.

8.9 As usual frozen items contributed for the major

share of exports. It showed a slight improvement also during 1976-77, when compared to the previous year. In terms of quantity the share of frozen items was 85.36 per cent and in terms of value it accounted for 96.94 per cent.

TABLE 8.6

Sectoral Share of Export of Marine Products from India 1972-73 to 1976-77

Sectors (1)		1972-73	1973-74	1974-75	1975-76	1976-77
		(2)	(3)	(4)	(5)	(6)
Frozen	Q	86.38	79.93	81.00	83.79	85.36
	V	91.75	90.56	89.90	96.93	96.94
Canned	Q	4.07	3.87	2.60	0.32	0.29
	V	5.43	6.03	5.20	0.37	0.38
Dried	Q	7.03	7.27	3.60	10.07	8.09
	V	2.44	1.52	1.10	1.29	1.16
Others	Q	2.50	8.93	12.80	5.82	6.26
	V	0.38	1.89	3.80	1.41	1.52
All	Q	100.00	100.00	100.00	100.00	100.00
	V	100.00	100.00	100.00	100.00	100.00

(Per cent)

Q—Quantity
V—Value

8.10 The average unit value realised during 1976-77 was the highest one being Rs. 28.33 per kg., compared to Rs. 22.86 of the previous year.

8.11 The item-wise exports of marine products from 1974-75 to 1976-77 is furnished in Table 8.7. The items "frozen" and "dried" continued to be the important ones among the various varieties of exports.

8.12 According to the Chairman of the Marine Products Export Development Authority, it is likely

that with proper marketing and development strategies our export earnings from marine products could be brought to the level of Rs. 1,000 crores per annum within the next five years.

8.13 The export of marine products from January to August 1977 had been the highest on record. During this period India's export of marine products reached 42,421 tonnes valued at Rs. 119.70 crores as against 41,211 tonnes worth Rs. 113.87 crores during the corresponding period of 1976.

TABLE 8.7

Item-wise Exports of Marine Products from India 1974-75 to 1976-77

Item (1)	1974-75		1975-76		1976-77	
	Quantity (Tonnes) (2)	Value (Rs. Crores) (3)	Quantity (Tonnes) (4)	Value (Rs. crores) (5)	Quantity (Tonnes) (6)	Value (Rs. crores) (7)
Frozen	36,703	61.69	50,549	121.51	56,977	183.94
Canned	1,162	3.59	191	0.43	194	0.78
Dried	1,630	0.75	2,491	1.08	5,401	2.17
Others	5,604	2.38	1,232	1.51	4,178	2.88
Total	45,099	68.41	54,463	124.53	66,750	189.12
Increase over 1974-75			+9364 (20.76)	+56.12 (82.03)	+21651 (48.00)	+120.71 (176.55)
Increase over 1975-76					+12287 (22.47)	+64.99 (51.88)

Spices

8.14 The export of spices from India attained a new peak of Rs. 74.42 crores, during 1976-77, but a decreasing tendency has been noticed in respect of quantity exported, during the current year. The quantity of spices exported declined to 53,595 tonnes from 57,591 tonnes in the previous year.

8.15 Exports of pepper, ginger, turmeric, curry powder, coriander seed etc., attained all-time records in earnings during 1976-77.

8.16 During this year, Eastern Europe and Middle East Zone ranked as the first and second important zones in import of spices from India followed by American Zone.

8.17 During 1976-77 the average f.o.b. price realisation from almost all spices except chillies, Fennel seed Garlic, Aniseed and Cassia have shown notable increase compared to the price obtained during the previous year. The price of pepper which was only Rs. 5.13 per kg. in 1968 went up to Rs. 13.99 per kg. in 1975-76 and again to Rs. 18.63 per kg. in 1976-77. The price of cardamom also attained the record level of Rs. 157.46 per kg. in 1976-77 compared to Rs. 51.27 per kg. in 1968-69. It is quite a happy feature that we are getting high prices for our spices at the same

time, this higher prices make Indian spices less preferred as other producing countries are selling their spices at lower prices. This situation demands immediate steps to increase the production and productivity of Indian spices.

8.18 Kerala accounts for about 46 per cent of the export of spices from India in terms of quantity and 62 per cent in terms of value during 1976-77. The item-wise exports of spices from Kerala and India for 1975-76 and 1976-77 are given in Table 8.8

Pepper

8.19 Exports of pepper from India during 1976-77 amounted to 20,076 tonnes valued at Rs. 37.70 crores registering an increase over 1975-76, in terms of value, but quantity declined from 24,169 tonnes of the previous year. As usual U. S. S. R. and other East European countries U. S. A. , Italy and Canada were the important buyers of Indian pepper. The sad feature about the situation is that the present production of pepper in India is not at all adequate to meet the demand from importing countries and the increasing internal demand. Exports of dehydrated green pepper and Canned/ Bottled green pepper also have shown appreciable increase during 1976-77. Of the pepper exported by India more than 96 per cent was through the ports of Kerala.

TABLE 8.8

Export of Spices from the Ports of Kerala and India (*)

Commodities	Kerala				India				Percentage of Kerala's Exports to India's Exports			
	1975-76		1976-77		1975-76		1976-77		1975-76		1976-77	
	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
Pepper	23,197	92.50	19,365	36.47	24,169	33.81	20,076	37.70	95.9	96.1	96.5	96.7
Cardamom	437	4.00	253	3.87	1,941	19.38	893	14.06	22.5	20.6	28.3	27.5
Ginger	2,638	2.12	1,683	2.02	4,774	4.06	4,929	5.93	55.2	52.2	39.9	34.1
Turmeric	1,819	0.76	1,403	0.65	12,011	4.25	9,670	4.62	15.1	17.9	14.5	14.1
Total including Other items	29,096	40.98	24,570	46.18	57,591	70.78	53,595	74.42	50.5	57.9	45.6	62.0

Q Quantity in tonnes
V Value in Rs. Crores.
* Figures are provisional.

Cardamom

8.20 Cardamom exports attained an all time record during 1975-76. But the export during 1976-77 declined to 893 tonnes worth Rs. 14.06 crores from 1941 tonnes worth Rs. 19.38 crores of the previous year. The main reason for the unprecedented decline in exports during the financial year 1976-77 was the result of the untimely introduction of export duty at the high rate of Rs. 50 per kg. during the period from 12-1-1977 to 24-2-1977. In this context it might be remembered that our exports are high during the months January to March. Kuwait, Saudi Arabia, U. S. S. R., Japan, the G. D. R., Dubai and Bahrain

continued to be the major buyers of Indian cardamom during 1976-77. As usual the Middle East accounted for the major share of cardamom exports from India during this year.

8.21 According to the Cardamom Board, India's exports during 1977-78 is expected to touch 2,300 tonnes worth Rs. 40 crores. During the period the production of cardamom is estimated to reach 3,500 tonnes of which 2,300 tonnes will be from Kerala, 900 tonnes from Karnataka, and 300 tonnes from Tamil Nadu. From April to October 1977, cardamom valued at Rs. 17.18 crores have been exported, the average price secured being Rs. 175 per kg.

Ginger

8.22 Exports of ginger from India have shown increase in terms of earnings during 1976-77 compared to 1975-76. During 1976-77, India exported 4,329 tonnes valued at Rs. 5.93 crores as against 4,774 tonnes valued at Rs. 4.06 crores in 1975-76. As usual ginger exports were mostly to Middle East Countries, U.S.A., Canada and other East European Countries, mainly U. S. S. R. As in the case of pepper, there is need for increasing the production of exportable varieties to fully cope with the increased demand for export.

Turmeric

8.23 The provisional figures of exports of turmeric during 1976-77 show that there is increase in terms of value of turmeric exported from Rs. 4.25 crores of the previous year to Rs. 4.62 crores. But quantity exported decreased to 9,670 tonnes compared to 12,011 tonnes of 1975-76. In respect of turmeric also, Middle East was the major importing zone followed by Japan, U. S. A., U. K., Singapore, Netherlands, Germany etc.

Cashew Kernels

8.24 As per reports published by the Cashew Export Promotion Council, Cochin, 38,738 tonnes of cashew kernels worth Rs. 143.22 crores have been exported from India during the year 1977, compared to 55,940 tonnes worth Rs. 110.91 crores during 1976. The quantity exported was lower, but the value realised has risen because of the sharp increase in unit value realised from Rs. 19.73 in 1976 to Rs. 36.97 in 1977. The major importers of this commodity were U. S. S. R., U. S. A., Japan and Australia. The export to U. S. A. suddenly declined to 8,815 tonnes from 20,550 tonnes in the previous year. The relevant figures are given in Table 8.9.

TABLE 8.9

Export of cashew Kernels from India (1976 and 1977)

Countries	January 1976		January 1977	
	Q	V	Q	V
U.S.S.R.	15 755	2966.71	19130	7356.72
U.S.A.	20 550	4095.64	8815	3063.80
Japan	5,440	1173.98	2937	1133.24
Canada	3,574	801.00	1284	470.48
Australia	2,377	497.94	1933	717.49
Hong Kong	532	125.04	651	244.34
Netherlands	1,792	359.67	1047	348.98
Federal Republic of Germany	1,304	257.46	481	151.91
G.D.R.	511	84.98	147	26.47
U.K.	1,015	197.50	382	117.69
Kuwait	535	126.53	410	153.19
Singapore	460	99.80	239	74.52
Total Exports from India	55,940	11090.98	38738	14321.51
Unit Value Rs./Kg.		19.73		36.97

Q—Quantity in tonnes.
V—Value in Rs. lakhs.

Cashew Shell Liquid

8.25 Cashew shell liquid export from India was valued at Rs. 97.46 lakhs in 1977, compared to Rs. 128.02 lakhs in 1976. The quantity exported during 1977 declined to 2,956 tonnes from 6,024 tonnes in the previous year. The unit value realised increased from Rs. 2,125 per metric tonne in 1976 to Rs. 3,297 per tonne in 1977. The export figures are provided in Table 8.10.

TABLE 8.10

Export of Cashew Shell Liquid from India

Countries	Export during January 1976		Export during January December 1977	
	Q	V	Q	V
	U. K.	2540	43.68	966	20.08
Japan	1653	39.26	539	14.41
U.S.A.	406	6.32	100	5.52
Rumania	330	7.92	350	10.15
Korean Republic	440	14.10	395	15.20
Total including other countries	6024	128.02	2956	97.46
Unit value (Rs. per tonne)			2125	3297

Q. Quantity in tonnes
V. Value Rs. lakhs.

8.26 U. K., Rumania and Korean Republic were the major importers of Indian cashew shell liquid during 1977.

Import of Raw Cashewnut

8.27 The decreasing trend in the import of raw cashewnuts into India was discernible in 1976-77 also. According to the Cashew Corporation, the import of rawnuts into India during 1976-77 was 71,858 tonnes worth Rs. 17.40 crores against 1,35,693 tonnes worth Rs. 33.29 crores in 1975-76. Table 8.11 gives the details of import of rawnuts into India from 1950-51 to 1976-77.

TABLE 8.11

Import of Raw Cashewnuts into India

Year	Quantity (tonnes)	Value (Rs. lakhs)
1950-51	54 819	84
1955-56	63 154	44
1960-61	1 18 321	961
1965-66	1 50 636	1 306
1966-67	1 41 021	2 124
1967-68	1 68 218	2 308
1968-69	1 95 528	3 188
1969-70	1,63,426	2,760
1970-71	1,69,359	2,941
1971-72	1,69,985	2,791
1972-73	1,97,930	3,181
1973-74	1,50,249	2,680
1974-75	1,60,558	3,680
1975-76	1,35,693	3,329
1976-77	71,858	1,740

8.28 Owing to the development of cashew processing industry in the cashew producing countries of East Africa particularly Tanzania and Mozambique and the emergence of China and Brazil as Cashew exporters, India is facing acute shortage of rawnuts to feed its factories. The State Government is taking special measures to increase internal production of raw nuts. The Kerala State Co-operative Marketing Federation has been entrusted with the procurement of raw nuts in the State this year also. Steps have been taken to prevent smuggling of raw cashewnuts from Kerala to the neighbouring States of Tamil Nadu and Karnataka.

8.29 The export of cashew products from India and Kerala and the import of raw nuts for 1976 and 1977 are given in Table 8.12. During January to December 1977, 64,379 tonnes of raw cashew worth Rs. 18.17 crores have been imported into India against 76,181 tonnes worth Rs. 18.03 crores during the corresponding period of the previous year. More than 95 percent of the rawnuts were imported through the ports of Kerala. The major portion of the imports was from Tanzania and Mozambique.

Coir and Coir Products

8.30 The year 1976-77 was an year of recovery for the export of coir and coir goods. Export earnings touched an all-time high of Rs. 22.78 crores. The export earnings during 1975-76 was Rs. 19.35 crores. The increase in value during 1976-77 over that during 1975-76 in percentage terms was 18. The quantity exported also was higher thus arresting the declining trend noticed during the past several years. In terms of quantity the increase in exports in 1976-77 over 1975-76 was 19 percent.

TABLE 8.12
Export and Import of Cashew Products

Products	January-December 1976		January-December 1977	
	Quantity (Tonnes)	Value (Rs. crores)	Quantity (Tonnes)	Value (Rs. crores)
(1)	(2)	(3)	(4)	(5)
<i>A. Export of cashew products</i>				
Cashew Kernels				
India	55,940	110.91	38,738	143.22
Kerala	53,197	104.78	36,725	135.76
Cashew shell liquid				
India	6,024	1.28	2,956	0.97
Kerala	5,250	1.06	20,99	0.65
<i>B. Import of Raw Cashewnuts</i>				
India	76,181	18.03	64,379	18.17
Kerala	71,867	17.02	61,441	17.35

8.31 If the item-wise exports are analysed we find that coir yarn has the highest earnings. This item accounts for about 60 per cent of the quantity and 46 per cent of the value of coir exports during 1976-77. The items coir rope and curled coir have in fact recorded a decline during 1976-77.

8.32 Tables 8.13A and 8.13B give the details of coir and coir goods exported from India and Kerala. About 99 per cent of the export of coir and coir goods from India is contributed by Kerala.

TABLE 8.13A
Item-wise Export of Coir and Coir Goods from 1972-73 to 1976-77

Item	1972-73		1973-74		1974-75		1975-76		1976-77	
	Q	V	Q	V	Q	V	Q	V	Q	V
1. Coir fibre	298	4.62	276	3.77	161	3.05	266	6.94	134	2.88
2. Coir yarn	31,908	818.18	29,373	822.01	24,401	826.71	22,970	1002.19	26,567	1052.32
3. Coir mats	12,749	526.26	12,302	573.28	11,322	646.53	7,488	562.48	9,582	733.18
4. Coir mattings rugs, carpets etc.	3,648	132.53	3,457	140.40	5,049	263.29	5,276	337.12	7,020	462.00
5. Coir rope	104	1.64	140	2.84	138	3.47	269	6.70	185	5.42
6. Curled coir	773	9.81	1,208	15.49	762	10.40	1,014	19.52	868	19.48
7. Rubberised coir goods	*	0.01	3	0.39	1	0.17	1	0.25	1	0.27
Total	49,480	1493.05	46,759	1558.18	41,834	1753.62	37,284	1935.20	44,357	2277.55

* Negligible

Q Quantity in tonnes.

V Value in Rs. lakhs.

TABLE 8.13B

Export of Coir and Coir Goods from Kerala and India during 1976-77

Item	Kerala		India	
	Quantity (Tonnes)	Value (Rs. lakhs)	Quantity (Tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)
Coir fibre	134	2.88	134	2.88
Coir yarn	26,452	1047.13	26,567	1052.32
Coir mats	9,473	726.82	9,582	735.18
Coir matting	6,014	388.65	6,039	390.11
Coir rugs and carpets	958	69.78	959	69.89
Coir-other sorts	28	1.86	28	2.00
Coir rope	178	5.16	185	5.42
Curled coir	697	15.58	868	19.48
Rubberised coir	1	0.16	1	0.27
Total	43,935	2,258.02	44,357	2,277.55

8.33 There was not any discernible change in the pattern of trade during 1976-77. West Europe continued to top the list during 1976-77 with a share of 62 per cent in terms of quantity and 63 percent in terms of value. East European countries together accounted for only about 8 percent of the total volume of coir exports from India during 1976-77, compared to 17 per cent during the previous year. Though the share of America has dropped slightly, that of West and East Asia showed a slight improvement, during 1976-77.

Coffee

8.34 Indian coffee industry has earned a record foreign exchange of Rs. 114.05 crores during the year 1976-77 through the export of 47,522 tonnes of coffee. Though the value realised increased by 71 per cent compared to that of 1975-76, the quantity exported fell by about 20 per cent. U. S. S. R. and U. S. A. are the major customers of Indian Coffee. The Central and State Governments are taking various measures to step up production and export of coffee and to maintain a steady internal price. The export data relating to coffee are given in Table 8.14.

TABLE 8.14

Exports of Coffee from India

Year	Quantity in tonnes	Value realised in Rs. Crores
(1)	(2)	(3)
1963-64	23,336	8.30
1964-65	30,691	13.35
1965-66	26,505	12.94
1966-67	25,833	14.44
1967-68	33,966	18.18
1968-69	28,741	17.96
1969-70	32,383	19.62
1970-71	32,189	25.11
1971-72	35,695	22.07
1972-73	50,855	32.93
1973-74	52,688	46.01
1974-75	49,500	51.36
1975-76	59,386	66.65
1976-77	47,522	114.05

Tea

8.35 During the year 1976-77 India's earnings from the export of 2,33,611 tonnes of tea came up to Rs. 273.14 crores. This happens to be the highest record in the history of tea exports from the country. There was a 10 percent increase in quantity exported and a 15 per cent increase in value realised, compared to the previous year. Table 8.15 below gives the details of the exports from 1968-69 to 1976-77.

8.36 The world production of tea has increased considerably, the rise being particularly noticeable in Africa and Ceylon and if India does not avail of this opportunity, through maximum exports, the entire benefit of the boom in the industry may pass on to other exporting countries. The rise in price of tea against increasing production was the result of increasing demand in the face of exorbitant rise in price of coffee.

TABLE 8.15

Quantity and value of tea exported from India during 1968-69 to 1976-77

Year	Quantity (in Tonnes)	Value (in 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	296.81
1976-77	233611	273.14

Imports

8.37 The imports at Cochin port increased from 33.2 lakh tonnes in 1975-76 to 35.70 lakh tonnes in 1976-77, i.e., a percentage increase of 7.5 per cent. Of this 33.35 lakh tonnes or 93.4 per cent were foreign imports as against 87.47 per cent in the preceding year.

8.38 Compared to the preceding year, there was a substantial increase in the import of P. O. L., coal, and fertilisers. The import of food grains declined. Owing to the difficult availability position of cashewnut in the producing countries and the ruling high prices, imports of cashewnuts also declined during 1976-77.

8.39 The total volume of imports during 1976-77 was 35.70 lakh tonnes valued at Rs. 384.46 crores. Of these 33.35 lakh tonnes valued at Rs. 379.4 crores were foreign imports. While imports from coastal ports, adjacent countries, Far Eastern Countries, Japan,

U. S. S. R., other European countries and Canada decreased, those from other regions increased during the year.

8.40 The details of principal imports at Cochin Port for the years 1975-76 and 1976-77 and the percentage to total imports are given in Table 8.16.

TABLE 8.16
Principal Imports at Cochin Port

(Quantity in tonnes)

Sl. no.	Commodities	1975-76		1976-77	
		Quantity	Percentage to total	Quantity	Percentage to total
(1)	(2)	(3)	(4)	(5)	(6)
1.	Rice and paddy	23318	0.70	2047	0.06
2.	Other grains	326174	9.82	157391	4.40
3.	Coal	105935	3.19	178715	5.00
4.	Cashewnuts	97677	2.95	51439	1.40
5.	Machinery	5969	0.18	5967	0.17
6.	Iron and steel	9953	0.30	8975	0.25
7.	Salt	19244	0.58	13436	0.40
8.	Chemicals and chemical preparations	1110	0.03	1503	0.05
9.	Oil seeds including copra and groundnuts	310	0.01	249	0.01
10.	Rock phosphate and fertilizers	194911	5.87	178894	5.00
11.	P. O. L. items	2306736	69.46	2695046	75.50
12.	Others	229474	6.91	276470	7.76
Total		3320811	100.00	3570132	100.00

CHAPTER IX
SOCIAL SERVICES

Education

The educational development of Kerala has been rapid and varied. Kerala has marched ahead of the rest of India in the field of educational development. No other State in India maintain such a high level of enrolment ratio and facilities for education ranging from the lowest to the highest stage. No other State spends such a large share of its resources on education and no other State can boast of such a high percentage of literacy as Kerala. The percentage of literacy in Kerala is 60 as against 29 percent for India as a whole. Nearly half the States in India are below the national average in literacy with the sole exception of Kerala all the remaining States show a percentage of literacy ranging up to 40 only. In the matter of enrolment ratio in the age group 6-11, Kerala has almost secured 100 per cent where as the other States in India are still far behind on the way to achieve it. About 38 percent of the State budget funds are set apart for the maintenance and development of education. The corresponding percentage for all India is 23. The proportion of public expenditure on education to the State income is 6.5 per cent as against 3 percent for India as a whole. It is significant to note that the present all India proportion of 3 per cent in this regard had already been achieved by Kerala one and a half decades back. The thumb-nail picture outlining in broad detail the educational progress made during the year 1977 reveals that there were remarkable changes in quality improvement and expansion of educational facilities.

School Education

9.2 There has been steady growth of educational institutions during the year under review. The total number of High Schools increased from 1666 to 1680, Upper Primary Schools from 2718 to 2725 and Lower Primary Schools from 6992 to 7013. Out of the total number of 11418 schools, 7057 (62 per cent) are run by the private agencies. In spite of starting of a large number of Government schools in the recent past, this proportion is the same as in 1961. It is therefore quite evident that educational institutions in the public and private sectors keep a more or less uniform trend of growth.

9.3 The total enrolments in schools during 1976-77 was 53.54 lakhs which has increased to 54.94 lakhs during 1977-78. This indicates an increase of 1.40 lakhs compared to the previous year. The increase in enrolments by stages is shown in Table 9.1.

TABLE 9.1

Enrolments in Schools Stage Wise

Educational stage	Number of students		
	1976-77	1977-78	
(1)	(2)	(3)	(4)
Lower Primary	2608089	2650091	42002
Upper Primary	1741927	1755501	13574
Secondary	1003665	1088166	84501
Total	5353681	5493758	140077

9.4 Table 9.1 indicates that the increase of enrolments was higher in the secondary stage followed by lower primary stage. The annual increase of enrolments in the current year was fairly high compared to the previous year. In the previous year the increase was only 0.68 lakh as against 1.4 lakhs this year. The annual intake in Std. I was on a trend of decline since 1972-73. The position has reversed during the last two years. Table 9.2 depicts the annual variation of enrolments in Standard I.

TABLE 9.2

Trend of Enrolments in Standard I
(1972-73 to 1977-78)

Year	Enrolment in std. I (in lakhs)	Variation (in lakhs)
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

Between 1956-57 and 1977-78, the total enrolment in primary stage (L.P. and U.P.) increased from 24.82 lakhs to 44.05 lakhs showing an increase of 77 per cent. In the secondary stage the increase of enrolments was from 2.16 lakhs to 10.88 lakhs during the same period, which represents an increase of 404 per cent. It is evident that the annual growth rate of enrolments in the secondary stage has exceeded the growth rate of enrolments in the primary stage. This is presumably an indication of the enrolments at the primary stage having reached the saturation point as early as in 1960-61.

while facilities and demand for secondary education are continuing to expand.

9.5 In the field of girls' education, the progress achieved by the State is phenomenal. The percentage of enrolment of girls in schools is almost equal to that of boys. Girls constitute 48 per cent of the total student population in schools, stage wise, the proportions are 48 per cent in lower primary stage, 47 per cent in upper primary stage and 47 per cent in secondary stage.

9.6 Teaching is perhaps the most important avenue of employment for the educated in the State. During 1976-77 there were as many as 1.64 lakhs of teachers in schools, consisting of 0.76 lakh in the lower primary stage, 0.52 lakh in the upper primary stage and 0.36 lakh in the secondary stage. There was an increase of 2308 teachers over the previous year. As much as 48 per cent of the teachers in schools are women.

Higher Education (General)

9.7 The development of higher education in Kerala far outstripped the development of secondary education as well as primary education. The number of Arts and Science colleges which provide general higher education remained at 130 during the year under review. As in the case of school education, private agencies play a dominant role in the field of University education in Kerala. Private sector controls 81 per cent of the colleges compared to 52 per cent in the case of schools. Out of the 130 colleges, 31 are Junior Colleges conducting Pre-Degree courses alone. The remaining 99 colleges are first grade colleges, conducting degree courses. Facility for Post Graduate education exist in 40 of these colleges. The University of Kerala has 79 Arts and Science Colleges. The remaining 51 Arts and Science Colleges are affiliated to the University of Calicut. There are no affiliated or constituents colleges under the University of Cochin except one Engineering College.

9.8 The enrolments in Arts and Science Colleges during 1976-77 was 1.76 lakhs as against 1.67 lakhs in the previous year which indicate an increase of 5 per cent. Out of the total number of enrolments in colleges, Pre-Degree course accounts for 60.2 per cent, First Degree 36.4 per cent and Post Graduate course 3.4 per cent. The increase in enrolments is so rapid that the number of students in colleges has increase from 0.36 lakh to 1.76 lakhs during 1960-1976 period. Rapid progress of girls' education at the University level is a remarkable feature of educational advancement in Kerala. Out of the total number of students in colleges, girls constitute 47 per cent. The total number of teachers in Arts and Science Colleges in the State has increased to 8042 during 1976-77 as against 7892 during 1975-76.

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Professional and Technical Education

9.9 The institutions for imparting technical education in the State consist of 6 Engineering Colleges, 18 Polytechnics, 41 Industrial Training Institutes and 21 Junior Technical Schools during 1976-77. The enrolments in Engineering Colleges increased to 4379 during 1976-77 as against 3823 in the previous year. This shows an increase of enrolments by 14 per cent.

9.10 The State is having 19 Teachers Training Colleges consisting of 4 colleges in the public sector and 15 colleges in the private sector. The total strength in these colleges rose from 1959 to 2005. The four Medical Colleges in the State had a student strength of 3543 during 1976-77 as against 3697 in the previous year. The fall in enrolment is the result of restricting admissions in view of grim employment prospects. There are 4 Ayurvedic Colleges in the State. The total strength in these colleges increased from 509 to 582. The four Law Colleges in the State had a student strength of 2172 as against 1992 in the previous year.

Expenditure on Education

9.11 Probably Kerala is the only State in India which incurs a very high proportions of its expenditure on education. This is because of the educational policy of the State which involves direct payment of the entire recurring expenditure of the aided schools and colleges by the State Government. Public expenditure on education which was Rs. 16.16 crores in 1960-61 has increased to Rs. 143.79 crores in 1976-77 indicating nearly a nine-fold increase during the period. The educational expenditure on School Education increased from Rs. 105.69 crores in 1975-76 to Rs. 118.21 crores in 1976-77. During the same period, expenditure on university education increased from Rs. 15.69 crores to Rs. 17.25 crores and expenditure on technical education from Rs. 4.5 crores to Rs. 5.15 crores. The per capita Government expenditure on education which was Rs. 55 in 1975-76, has increased to Rs. 60 in 1976-77. The cost per pupil in primary education increased from Rs. 170 to Rs. 186 and that in secondary education from Rs. 361 to 371 during the same period.

Welfare of Scheduled Tribes.

9.12 The tribal welfare department was formed to concentrate efforts on the overall improvement of tribal life. It has helped more effective and systematic implementation of Tribal Development programmes. The procedure for selecting the beneficiaries of the various grants was reviewed and it was decided that instead of selecting individual beneficiaries, entire hamlet would be selected so that all the households in that hamlet would be eligible for the grants. In the selection of hamlets, the most backward hamlets

where development efforts hitherto have been ineffective will get priority. The tribal Research Centre has conducted a study on the functioning of the Government Residential Basic Schools and recommended conversion of the GRBS in to hostels. This recommendation was implemented except in the case of the schools in very remote areas. Steps have been taken to strengthen the existing tribal societies and to organise new Girijan Service Co-operative Societies in tribal concentrations.

9.13 The tribal sub-plan prepared during 1976 required some modifications in the light of the recommendations of the Planning Commission. A revised sub-plan corresponding to the Fifth Five Year Plan has since been prepared. Specific provisions in the budgets of the departments like Agriculture, Animal Husbandry, Public works, Forest, etc., were made only during the year 1977-78 for the development of sub-plan areas. Special central assistance for tribal development during 1976-77 was Rs. 26.00 lakhs and the expenditure was Rs. 24.61 lakhs. This includes the expenditure incurred for the implementation of special programmes for primitive tribes, viz. Kurumbas of Attappady and Cholanaikans of Nilambur. The corresponding expenditure for year 1975-76 was Rs. 15.52 lakhs. Table 9.3 shows the expenditure under various programmes implemented under tribal Area sub-plan for the year 1976-77.

TABLE 9.3

Sl.No.	Programme	Expenditure (Rs. lakhs)
1.	Administration	1.50
2.	Housing	10.00
3.	Co-operation	3.78
4.	Irrigation	1.37
5.	Communication	2.16
6.	Agriculture	1.62
7.	Land Development	0.75
8.	Wells and Water Supply	0.97
9.	Electrification	0.42
10.	Animal Husbandry	0.29
11.	Education	0.36
12.	Adult Education	0.01
13.	Construction of Latrines	0.03
14.	Construction of Staff Quarters	0.16
15.	Tribal Surveys	0.75
16.	Training to Tribal Farmers	0.05
17.	Purchase value of surplus land to S.T. beneficiaries	0.27
18.	Others	0.12
	Total	24.61

9.14 The progress of implementation of some major schemes during 1976-77 are as follows. Two new tribal settlements were taken up at Anachal (Idukki)

and Veerpad (Cannanore) respectively for the development of tribal pockets. Now there are altogether 21 such pockets. A dispensary at Koovakandam and a Midwifery Centre at Kannavam were started during the year under review to provide medical facilities to tribals living in remote areas. The construction of 178 new houses were started and a sum of Rs. 4.86 lakhs was spent. Scholarships and stipends worth Rs. 22.65 lakhs were given to 12000 students and Boarding grants were given to 88 boarders.

Welfare of Scheduled Castes.

9.15 Government has given direction to all Heads of Departments and other agencies implementing plan schemes that 10% of the development outlay in each sector should be earmarked exclusively for the benefit of scheduled castes and scheduled tribes. It was estimated that Rs. 293 lakhs would flow from general sector for the benefit of scheduled castes and scheduled tribes during the year 1976-77. The expenditure incurred amounted to Rs. 194 lakhs. The special cell to review the progress of the above schemes pointed out that the progress of implementation in respect of the schemes benefiting scheduled castes and scheduled tribes has been very poor.

9.16 The main activities of the Harijan Welfare Department are classified into three distinct categories, viz., (1) Educational programmes (2) Economic Development programmes and (3) Health, Housing and Other programmes. A major share in the expenditure of the Department is for the Educational schemes particularly for the payment of scholarships and stipends. Scholarships and stipends worth Rs. 125.15 lakhs were given to the students for pre-matric studies and Rs. 67.72 lakhs for post-matriculation studies. About 4.5 lakh students were benefited by the above scheme.

9.17 A new colony was established at Nilambur during the year 1976-77. The Chithalvetty colony started during the previous year showed little progress due to encroachment on the colony land by some people. Various programmes like cultivation, construction of houses and extension of electric lines etc., were carried out in Thonnackal colony during the year under review. House construction works taken up under the general housing schemes have made some progress during the year. 821 families benefited under this scheme during the year 1976-77 as against the 614 families during the previous year. Grants worth Rs. 2.20 lakhs were given to 135 couples who entered into inter-caste marriage. The corresponding figures for the previous year were Rs. 1.03 lakhs and 86 couples respectively.

9.18 The achievement under educational concessions to Other Backward Classes also showed progress during the year 1976-77. The total amount

spent during the year under review for students studying in post matric classes was Rs. 132.9 lakhs against the corresponding figure of Rs. 65.60 lakhs during 1975-76. Scholarships during 1976-77 to pre matric students belonging to O.B.C. was Rs. 51.82 lakhs. Monetary concessions were extended to deserving candidates belonging to other communities also. The achievement under this item was Rs. 12.69 lakhs during 1976-77.

9.19 The Kerala State Harijan Development Corporation also undertook harijan development activities for the uplift of scheduled castes and scheduled tribes. The largest programme undertaken by the corporation is the housing programme under which interest free loan worth Rs. 5,000 will be given to each loanee. So far 2030 houses have been completed under this programme. Government have reserved 10 percent of industrial units in the Mini-industrial estates for Scheduled Castes and Scheduled Tribes. The Corporation has given loans worth Rs. 1.19 lakhs to 10 S.C. and S.T. persons at 5 per cent interest in order to enable them to avail of this facility. Preliminary steps to set up a match factory at Mala in Trichur District were taken to provide employment to Harijans. The factory building is nearing completion. A carpentry production centre to manufacture standardised doors and windows was started at Mahe during the year under review. Loans worth Rs. 26,34,895 at 4 percent interest were disbursed to 728 persons for the purchase of agricultural land. To provided self employment to Harijans 232 auto-rickshaws costing Rs. 28.50 lakhs have been so far supplied to harijans who possessed valid autor-ickshaw driving licence. Moreover 245 persons were trained in auto-rickshaw driving, availing the grant from Government.

Health.

Allopathy:

9.20 During the past few years the State has made remarkable progress in the sphere of medical care facilities. As a result of this alround improvement in health services and the extension of medical care to villages, the expectation of life at birth continues to be the highest (62) in Kerala when compared to the rest of the country, while the death rate of 8 per thousand reached during 1976-77 is the lowest.

9.21 However, this tempo of progress achieved in the level of health could not be maintained in raising the total bed strength in the hospitals during the year under review. The total number of hospital beds has gone up from 27568 in 1975-76 to 27607 in 1976-77. This indicates that very little progress could be achieved in raising the bed strength. But it was not due to any laxity on the part of the Government in raising the number of hospital beds. In fact if the Government institutions alone are considered it is seen that the

tempo of progress has been maintained during the year under review also. The data regarding bed strength have not been received from one or two grant in aid institutions and therefore the details in respect of those hospitals could not be included. This partly explains the marginal increase registered in total number of hospital beds.

9.22 In spite of this marginal increase in the total number of beds, the number of beds per lakh of population has gone down from 115 to 113 as a result of the simultaneous increase in population. Data relating to the number of medical institutions and beds under allopathic system of medicine for the period 1966-67 to 1976-77 are presented in Table 9-4.

TABLE 9.4

Medical Institutions and Beds in Kerala

Year	Total No. of Medical and Public Health 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	888	27,607	113

*Revised on the basis of the estimated mid-year population figures published by the Reserve Bank of India.

9.23 The data presented in Table No. 9.4 indicate the district-wise break up of medical institutions and number of beds per lakh of population. Eventhough Kerala could achieve the target of one bed per thousand population nearly a decade ago there are certain regional imbalances within the State with regard to the availability of hospital beds. In spite of the concerted efforts during the fifth plan period to counter them, these regional disparities exist even today. Trivandrum district continues to have the maximum number of beds per lakh of population while Idukki and Malappuram district lag far behind in this respect.

TABLE 9.5
B.d population Ratio

District	No. of beds per lakh of population	
	1975-76	1976-77
(1)	*(2)	(3)
Trivandrum	216	214
Quilon	70	71
Alleppey	150	148
Kottayam	144	133
Idukki	30	36
Ernakulam	110	111
Trichur	155	135
Palghat	66	65
Malappuram	38	39
Kozhikode	145	142
Cannanore	84	86
Kerala	115	113

*Revised on the basis of the estimated mid year population figures published by the Reserve Bank of India.

Indigenous Medicine:

9.24 Considerable progress has been made in the services offered by the indigenous system of medicine during the year under review. During the year two additional Ayurveda hospitals were started and the total number of hospital beds has gone up from 1,282 to 1,362. At present there are 67 Ayurveda hospitals including 2 Visha Vaidya hospitals and one hospital for mental diseases, 390 dispensaries including 5 Visha Vaidya dispensaries and 3 Siddha Vaidya dispensaries. 273 grant in aid Vaidya Salas also are rendering medical aid to the public. The system of awarding grant in aid to Vaidyasalas is being gradually given up consequent on the opening of regular dispensaries. The district-wise distribution of institutions under Ayurvedic system of medicine is given in Appendix 9-21

9.25 Under Homoeopathic system of medicine a new hospital with 25 beds has been started at Malappuram, raising the number of hospitals to 9 and the total number of hospital beds to 275. Now only the districts of Quilon and Idukki do not have any Homoeo hospitals. There are at present 122 homoeo institutions in the State, 9 hospitals and 113 dispensaries. The district-wise details regarding them are given in Appendix 9.22.

Medical Practitioners:

9.26 The number of medical practitioners under the different systems of medicine as on 31-3-1977 is presented in Table 9.6. Compared to the previous year there has been substantial increase in the number of A Class Medical practitioners of the three major systems of medicine. However, among the three

systems increase in the number of medical practitioners is the highest under Allopathy.

TABLE 9.6
Medical Practitioners

System	Class of Registration	1975-76	1976-77
(1)	(2)	(3)	(4)
I. Allopathy	A	8,052	8,739
	B	635	635
	Listed	204	204
	Sub-total	..	8,891	9,578
II. Homoeopathy	A	1,214	1,487
	B	1,489	1,489
	Listed	279	279
	Sub-total	..	2,982	3,255
III. Ayurveda	A	3,618	3,784
	B	6,101	6,101
	Listed	599	599
	Sub-total	..	10,318	10,484
IV. Siddha	A	38	41
	B	1,218	1,218
	Listed	41	41
	Sub-total	..	1,297	1,300
V. Unani	A	Nil	Nil
	B	51	51
	Listed	5	5
	Sub-total	..	56	56
Grand total	..	23,544	24,673

Family Welfare:

9.27 As a result of the intensive effort made to limit the size of the family in Kerala from the Fourth Plan period onwards, most of the family welfare programmes launched during 1976-77 have made substantial progress. The numbers of vasectomy and P. P. S. operations conducted during the year were 1,29,829 and 84,566 respectively while the corresponding figures for the previous year were 94,270 and 62,352. As many as 25,389 induced abortions have also been effected during the year compared to only 19,969 in 1976. The only family welfare programme which has lagged behind the previous years' level is the programme for IUD insertions. The number of IUD insertions has gone down to 17,851 from the

previous years' achievement of 28,302. The recent trend in the number of IUD insertions shows that this programme is getting unpopular. However, induced abortion is gaining popularity.

9.28 The expenditure incurred on family welfare programme has been increasing steadily from 1966-67 to 1971-72. It suffered a set-back during the next four years. In the year 1976-77 the expenditure under family welfare has more than doubled when compared to the previous years' expenditure. This sharp increase in the expenditure was due partly to the cost of training 4000 'Dais' as per the direction of Government of India. Expenditure incurred on family welfare programme for the last few years is given in Table No. 9.7.

TABLE 9.7

Expenditure on Family Welfare Programme

Year	Total expenditure on family welfare (Rs. in lakhs)
(1)	(2)
1966-67	88.58
1967-68	131.84
1968-69	184.72
1969-70	198.88
1970-71	227.43
1971-72	333.33
1972-73	324.27
1973-74	260.50
1974-75	259.54
1975-76	252.33
1976-77	626.52

9.29 Consequent to the various steps taken by the Government, most sections of the people have become fully aware of the seriousness of the problem of over-population and they have begun to adopt family welfare measures willingly. The birth rate which stood at 34.3 per thousand in 1968 came down to 27.8 per thousand in 1975. This achievement in reducing the birth rate has been quite remarkable especially when compared to the all India targets and achievements in this respect. The national target is to reduce the annual birth rate from about 39 per thousand in 1969 to 30 by the end of the Fifth Plan and to 25 by 1983-84. Now it is stated that at the national level the target dates have to be revised and at the present rate of progress even achieving the birth rate of 30 per thousand will be possible only by 1984-85.

9.30 However, as far as Kerala is concerned this slow progress in family welfare measures at the national level should not lead to complacency. It is well

known that the present population is considerably higher in this State. Therefore even bolder steps to prevent the rapid growth of its population would be quite justified. Unless drastic measures are taken to arrest the growth of population a State like Kerala, with very high density of population will not be able to make any real progress. The situation is really such as to warrant any drastic measure short of coercion to achieve a static if not declining trend in population.

Water Supply

9.31 Commendable progress has been made in making available drinking water s both the urban and rural areas. The number of towns having water supply at the end of 1975-76 was only 25. In the year under report more towns have been provided with water supply raising the total number of towns having protected water supply to 28. In view of the growing need of drinking water experienced in Trivandrum city, the works on the construction of a storage dam across Karamana river at Peppara were taken up during the year. Works on the augmentation of Trichur and Palghat water supply schemes were also commenced during the year.

9.32 Under rural water supply 579 schemes were in operation at the end of 1975-76. In the course of 1976-77, 30 more rural water supply schemes were completed and there were 172 schemes under various stages of completion. It has also been estimated that 15 percent of the total rural area in the State has been covered by protected water supply by 1976-77. Tables indicating the progress made under water supply and sanitation are given in Appendices 9.23, 9.24 and 9.25.

Housing

9.33 In Kerala where the density of population is more than three times the all India average the problem of housing is particularly acute. Therefore, any programme designed to solve this problem requires huge investment. With the limited financial resources at its disposal the State Government is not in a position to undertake such a massive house construction programme. However, the government have been operating a number of housing schemes to help the people, especially the weaker sections.

9.34 Some of the important housing schemes implemented through the Board of Revenue are the "Low Income Group Housing Schemes", the "Middle Income Group Housing Scheme" and the "Village Housing Project". The number of houses constructed and the amounts disbursed so far under these schemes are presented in Table No. 9.8.

TABLE 9.8
Progress under Housing Schemes

Items		Low Income group	Middle Income group	Village Housing Project
(1)		(2)	(3)	(4)
1. Number of houses sanctioned upto	3/77	6,770	1,396	8,288
2. Number of houses completed upto	3/77	6,190	1,185	6,967
3. Total amount disbursed upto (Rs. in lakhs)	3/77	435.29	210.34	201.88

9.35 Though the 'One Lakh Houses Scheme' as such has been discontinued, it has now been decided that in case a panchayat or any other organisation is willing to take up the construction of houses, the government will be prepared to give the necessary timber and tiles free of cost as was being done in the past. Though 57,000 houses only could be completed under the 'One Lakh Houses Scheme' it stands out as one of the rare instances of a massive development programme being successfully implemented with popular participation.

Housing Board

9.36 Besides taking up public housing schemes and rental housing schemes at different centres of the State

the Housing Board also extends financial assistance by way of loan to economically weaker sections (EWS) throughout the State for construction of houses. Under this scheme it has been proposed to give financial assistance for the construction of 10,000 houses every year. Out of the 3,855 applications received as a first instalment 2,000 have been sanctioned so far.

9.37 The Board has also been aware of the necessity of bringing down the cost of house construction to the minimum level possible. With this view a factory was started at Beypore to produce roofing sheets from coir wastes at cheaper costs. The factory has gone into experimental stages of production in 1977.

Construction of Low Cost Houses

9.38 The government accepted a scheme for the development of satellite towns near the rapidly growing urban centres by constructing low cost houses. This will be implemented by the State Housing Board, Construction Corporation and Financial Enterprises in collaboration with each other. During the current year the scheme will be limited to the Construction of 3,000 houses in five towns—Trivandrum, Cochin, Calicut, Kottayam and Trichur. It is roughly estimated that this would necessitate a capital investment of Rs. 10 crores.

APPENDIX

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APPENDIX 2.1

Growth of Net Domestic Product in the Fifth Plan—India and Kerala

(Rs. in crores)

Sector	India					Kerala				
	1973-74*	1974-75*	Rate of growth (per cent)	1975-76*	Rate of growth (per cent)	1973-74*	1974-75*	Rate of growth (per cent)	1975-76**	Rate of growth (per cent)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(A) AT CURRENT PRICES										
1. Primary Sector	25976	28969	11.5	27001	(—) 6.8	1011	1109	9.7	1080	(—)2.6
2. Secondary Sector	9273	12345	33.1	13601	10.2	230	246	6.9	256	4.1
3. Transport, Communication and Trade	7693	10170	32.2	10907	7.2	285	349	22.4	408	16.9
4. Finance and Real Estate	1944	2679	37.8	3213	19.9	68	79	16.2	93	17.7
5. Community and Personal Services	4834	5533	14.5	6129	10.8	204	249	22.0	297	19.3
6. Total: Net Domestic Product	49720	59696	20.0	60851	1.9	1798	2032	13.6	2134	5.0
7. Per Capita Income (Rs.)	856	1007	17.6	1008	0.1	800	884	10.5	909	2.8
(B) AT 1960-61 PRICES										
1. Primary Sector	8667	8359	(—)3.6	9423	12.7	323	330	2.2	328	(—)0.6
2. Secondary Sector	4651	4748	2.1	5023	5.8	127	126	(—)0.8	130	3.2
3. Transport, Communication & Trade	3277	3354	2.3	3605	7.5	104	109	4.8	111	1.8
4. Finance and Real Estate	864	854	(—)1.2	908	6.3	28	29	3.5	31	6.9
5. Community and Personal Services	2822	2966	5.1	3086	4.0	94	93	(—)1.2	98	5.4
6. Total: Net Domestic Product	20281	20281	0.0	22045	8.7	676	687	1.6	698	1.6
7. Per Capita Income (Rs.)	349	343	(—)1.7	366	6.7	301	299	(—)0.7	297	(—)0.7

* Provisional

** Quick Estimates.

Source: 1. C.S.O. National Accounts Statistics, October 1976 and Press Note dated 23-1-1978.
2. B.E.S., Trivandrum.

APPENDIX 2.2

Net Domestic Product at Factor Cost by Industry of origin—India (At Current Prices)

(Rs. in crores)

Industry/Sector	1960-61	1965-66	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Primary Sector	6965	10194	14635	16049	17300	17805	19436	25976	28969	27001	27515
2. Secondary Sector	2549	4218	5548	6392	7015	7488	8173	9273	12345	13601	15251
3. Transport Communication and Trade	1870	3173	4463	4859	5382	5768	6293	7693	10170	10907	11628
4. Finance and Real Estate	552	920	1121	1207	1360	1525	1707	1944	2679	3213	3596
5. Community and Personal Services	1399	2296	3095	3370	3689	4037	4336	4834	5533	6129	6544
6. Total: Net Domestic Product at factor cost	13335	20801	28862	31877	34746	36623	39945	49720	59696	60851	64534
7. Net National Product at factor cost	13263	20637	28607	31606	34462	36332	39643	49396	59417	60596	64279
8. Per capita Income	306	425	552	597	637	657	702	856	1007	1008	1049

Source: C.S.O. National Accounts Statistics October 1976 and Press Note dated 23-1-1978.

APPENDIX 2.3

Net domestic Product at Factor Cost by Industry of Origin—India (At 1960-61 Prices)

(Rs. in crores)

Industry/Sector	1960-61	1965-66	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Primary Sector	6965	6667	7612	8084	8752	8583	7985	8667	8359	9423
2. Secondary Sector	2549	3553	3875	4207	4319	4357	4524	4651	4748	5023
3. Transport, Communication and Trade	1870	2469	2766	2914	3048	3157	3197	3277	3354	3603
4. Finance and Real Estate	552	666	724	749	786	833	860	864	854	908
5. Community and Personal Services	1399	1879	2135	2248	2377	2556	2669	2822	2966	3086
6. Total: Net Domestic Product at factor cost	13335	15234	17112	18202	19282	19486	19235	20281	20281	22043
7. Net National Product at factor cost	13263	15082	16939	18016	19096	19298	19048	20143	20183	21932
8. Per Capita Income (Rs.)	306	311	327	341	353	349	337	349	343	368

Source: C.S.O. National Accounts Statistics, October 1976.

APPENDIX 2.4

Net State Domestic Product at Factor Cost by Industry of Origin—Kerala—(At Current Prices)

(Rs. in lakhs)

Industry/Sector	1960-61	1965-66	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Primary Sector	24196	39736	53641	59977	67249	61907	74383	101144	110857	108943
2. Secondary Sector	6585	10286	14539	16062	16321	18449	19918	22970	24619	23502
3. Transport Communication and Trade	5769	10340	15860	17582	20037	21693	24886	28475	34941	40700
4. Finance and Real Estate	1573	2812	3485	3795	4208	5065	5430	6803	7874	9321
5. Community and Personal Services	5099	7895	11878	13679	14856	16029	17677	20413	24891	23600
6. Total: Net State Domestic Product	43222	71069	99403	111095	122671	123143	142294	179805	203182	219464
7. Per Capita Income (Rs.)	259	379	496	541	584	573	647	800	884	900

Source: Bureau of Economics and Statistics, Trivandrum.

APPENDIX 2.5

Net State Domestic Product at Factor Cost by Industry of Origin—Kerala (At 1960-61 Prices)

(Rs. in lakhs)

Industry/Sector	1960-61	1965-66	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Primary Sector	24196	24696	28809	30009	31697	32124	32367	32307	33029	32044
2. Secondary Sector	6585	8710	9953	10715	10680	12007	12582	12686	12593	12932
3. Transport, Communication and Trade	5769	7073	9338	9711	9956	10236	10374	10398	10856	11500
4. Finance and Real Estate	1573	2004	2143	2168	2301	2624	2708	2847	2854	3132
5. Community and Personal Services	5099	6356	7204	7362	7706	8127	8568	9353	9345	9700
6. Total: Net State Domestic Product	43222	48839	57447	59965	62340	65118	66599	67591	68677	68707
7. Per Capita Income (Rs.)	259	261	286	292	297	303	303	301	299	297

Source: Bureau of Economics and Statistics, Trivandrum.

APPENDIX 2.6

District income of Kerala

District	At current prices				At 1960-61 Prices			
	1970-71		1975-76		1970-71		1975-76	
	Amount (Rs. lakhs)	Percentage share	Amount (Rs. lakhs)	Percentage share	Amount (Rs. lakhs)	Percentage Share	Amount (Rs. lakhs)	Percentage share
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Trivandrum	11,895	9.7	22,314	10.5	6,055	9.7	7,154	10.3
2. Quilon	15,039	12.3	28,321	13.3	7,707	12.4	9,365	13.4
3. Alleppey	11,801	9.6	19,326	9.0	5,850	9.4	6,127	8.8
4. Kottayam	10,149	8.3	18,294	8.6	5,074	8.1	5,998	8.6
5. Idukki	4,698	3.8	8,994	4.2	2,413	3.9	2,969	4.3
6. Ernakulam	13,629	11.1	23,603	11.1	7,645	12.3	8,825	12.6
7. Trichur	11,525	9.4	18,994	8.9	5,870	9.4	6,368	9.1
8. Palghat	9,267	7.6	16,331	7.6	4,613	7.4	4,756	6.8
9. Malappuram	8,872	7.2	14,565	6.8	4,303	6.9	4,477	6.4
10. Kozhikode	12,772	10.4	21,055	9.9	6,374	10.2	6,961	10.0
11. Cannanore	13,024	10.6	21,627	10.1	6,436	10.3	6,767	9.7
KERALA	1,22,671	100.0	2,13,424	100.0	62,340	100.0	69,467	100.0

APPENDIX 2.7

Percentage of Population and Area & Density of Population of States in India — 1971

State	Percentage of Population (1971 Census)	Percentage of area	Density of Population per sq. km. (1971 Census)
(1)	(2)	(3)	(4)
INDIA	100.00	100.00	182
States			
1 Andhra Pradesh	7.94	8.44	157
2 Assam	2.73	3.04	150
3 Bihar	10.28	5.30	324
4 Gujarat	4.87	5.97	136
5 Haryana	1.83	1.35	227
6 Himachal Pradesh	0.63	1.70	62
7 Jammu & Kashmir	0.84	6.77	21
8 Kerala	3.90	1.18	549
9 Madhya Pradesh	7.60	13.50	94
10 Maharashtra	9.20	9.38	164
11 Manipur	0.20	0.68	48
12 Meghalaya	0.18	0.69	45
13 Mysore (Karnataka)	5.35	5.85	153
14 Nagaland	0.09	0.50	31
15 Orissa	4.00	4.75	141
16 Punjab	2.47	1.54	269
17 Rajasthan	4.70	10.43	75

4/853/MC.

(1)	(2)	(3)	(4)
18 Tamil Nadu	7.52	3.96	317
19 Tripura	0.28	0.32	148
20 Uttarpradesh	16.12	8.97	300
21 West Bengal	8.09	2.68	504
Union Territories	1.18	3.00	...

Source: Census of India 1971, Series I-India—
Paper 1 of 1972, Final Population.

APPENDIX 2.8

Distribution of Population According to Age

Age Group (Years)	Percentage of Population		
	India (1971)	Kerala (1971)	Kerala (1961)
0-14	42.02	40.26	42.63
15-19	8.66	10.95	8.48
20-24	7.86	9.32	8.48
25-29	7.44	6.50	7.64
30-39	12.60	11.66	12.33
40-49	9.34	9.16	8.66
50-59	6.09	5.92	5.93
60 and above	5.97	6.23	5.84
Age not stated	0.02	..	0.01
Total	100.00	100.00	100.00

Source: Registrar General & Census Commissioner of India.

APPENDIX 2.9

Estimated Annual Birth and Death Rates in India 1972-75

States	Birth Rate				Death Rate			
	1972	1973	1974	1975	1972	1973	1974	1975
1. Andhra Pradesh	35.8	31.6	34.2	34.9	16.1	16.6	15.2	15.2
2. Assam*	36.4	33.3	32.8	30.1	17.9	16.4	16.8	16.9
3. Bihar	33.1	31.4	28.7	27.7	18.3	14.7	15.9	13.3
4. Gujarat	40.2	35.4	38.4	37.0	14.9	15.8	13.0	15.4
5. Haryana	40.5	39.4	39.5	38.0	11.7	12.1	12.6	12.3
6. Himachal Pradesh	33.1	37.6	34.9	32.7	15.9	12.4	12.3	13.2
7. Jammu & Kashmir	31.6	32.5	29.2	31.9	10.8	10.3	9.9	12.6
8. Karnataka	31.5	28.9	28.0	27.7	12.8	12.4	10.8	11.1
9. Kerala	31.2	29.2	26.8	28.0	9.2	8.5	7.8	8.4
10. Madhya Pradesh	39.3	37.4	36.6	40.3	18.7	16.9	15.8	18.5
11. Maharashtra	32.2	28.8	29.0	29.7	12.8	13.6	11.5	11.4
12. Manipur	31.2	28.7	25.0	24.5	9.0	7.8	8.3	5.6
13. Nagaland	N.A.	N.A.	24.6	19.5	N.A.	N.A.	9.3	9.5
14. Orissa	34.5	34.8	33.6	33.6	20.0	18.2	15.8	17.7
15. Punjab	34.6	33.4	32.0	31.8	12.6	12.1	10.6	10.8
16. Rajasthan	42.4	38.1	36.3	36.9	16.8	16.1	14.3	15.9
17. Tamil Nadu	32.4	30.0	29.2	30.7	15.1	14.1	13.9	15.0
18. Tripura	32.9	32.6	32.2	29.2	10.3	14.6	12.0	9.4
19. Uttar Pradesh	43.2	41.7	42.1	43.1	25.6	19.4	19.7	22.6
20. West Bengal	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
21. Sikkim	..	..	..	N.A.	..	..	..	N.A.
All India	36.6	34.6	34.5	35.2	16.9	15.5	14.5	15.9

* Including Meghalaya.

N.A.—Not applicable.

Source: Sample Registration Bulletin, Vol. XI, No. 1, January 1977.

APPENDIX 2.10

All India Birth and Death Rates—Rural, Urban & Combined.

Year	Birth Rate			Death Rate		
	Rural	Urban	Combined	Rural	Urban	Combined
1970	38.9	29.7	36.8	17.3	10.2	15.7
1971	38.9	30.1	36.9	16.4	9.7	14.9
1972	38.4	30.5	36.6	18.9	10.3	16.9
1973	35.9	28.9	34.6	17.0	9.6	15.5
1974	35.9	28.4	34.5	15.9	9.2	14.5
1975	36.7	28.5	35.2	17.3	10.2	15.9

Source: Sample Registration Bulletin, Vol.-XI; No.1, January 1977.

APPENDIX 2.11

Sex Ratio in Kerala and All India for Different Decades

Year	Females per 1000 males	
	Kerala	India
1901	1004	972
1911	1008	984
1921	1011	958
1931	1022	930
1941	1027	945
1951	1028	946
1961	1022	941
1971	1016	980

Source: Registrar General & Census Commissioner, India, New Delhi.

APPENDIX 3.1

Index Numbers of Wholesale Prices—All India

(Base 1970-71=100)

Items	1977											
	January	February	March	April	May	June	July	August	September	October	November	December
All Commodities	178.5	182.4	182.9	184.1	187.4	188.3	188.7	188.1	188.1	185.2	183.9	184.5
Primary articles	172.0	178.1	179.0	181.6	186.8	187.2	188.2	187.2	186.4	182.5	180.6	181.9
Fuel, power, light & lubricants	232.1	232.1	232.0	239.0	232.4	232.4	232.4	232.4	232.4	232.4	232.4	232.4
Manufactured products	174.9	177.5	177.8	177.9	180.3	181.8	181.7	181.4	182.1	179.5	178.9	178.5
Foodgrains	158.9	162.6	161.8	159.1	163.4	165.8	170.3	170.6	173.4	..	..	..
Edible oils	170.5	181.0	175.6	173.4	185.3	186.0	189.7	187.8	189.1	..	..	..
Sugar, Khandsari, gur	187.3	195.1	195.6	192.8	197.4	201.3	198.5	200.1	203.2	..	..	..
Cotton—raw	213.7	215.0	209.4	209.5	214.6	210.8	206.7	196.6	189.5	..	..	..

Source: R.B.I. Bulletins.

Figures for October, November & December, 1977 are provisional

APPENDIX 3.2

Consumer Price Index Numbers for Industrial Workers in India—1977

(Base 1960=100)

Centre	January	February	March	April	May	June	July	August	September	October	November	December
1. Ahmedabad	286	293	295	294	299	304	308	311	317	N.A.	N.A.	N.A.
2. Bangalore	336	342	339	342	347	345	347	346	346	..	..	..
3. Bombay	301	309	309	309	314	316	321	319	321	..	..	..
4. Calcutta	297	299	304	306	313	314	326	331	338	..	..	..
5. Coimbatore	312	315	310	309	314	315	318	319	319	..	..	..
6. Delhi	336	340	345	346	346	353	359	362	366	..	..	..
7. Hyderabad	321	320	320	319	324	328	336	338	340	..	..	..
8. Madras	298	298	298	299	300	300	304	302	306	..	..	..
9. Mundakayam	313	294	287	284	293	295	298	299	303	..	..	..
10. Nagpur	298	299	303	302	305	309	314	319	320	..	..	..
11. Alleppey	336	315	312	322	310	332	331	327	325	..	..	..
12. Alwaye	320	311	311	314	317	319	321	318	321	..	..	..
ALL INDIA	307	310	312	313	318	320	325	327	331	..	..	..

Source: Indian Labour Journal, Simla.

APPENDIX 3.3

Consumer price Index (cost of living index) Numbers for Agricultural and Industrial Workers—Kerala
Index Numbers for the month of January to December—1977

(Base 1970=100)

Sl. No.	Centre	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Trivandrum	160	158	158	159	160	160	160	159	160	160	159	161
2.	Quilon	162	160	160	161	162	163	164	163	164	164	163	164
3.	Punalur	161	159	158	159	161	161	161	160	160	159	157	159
4.	Alleppey	161	158	157	157	158	159	159	159	160	160	159	160
5.	Kottayam	155	153	153	153	154	155	155	155	155	155	154	156
6.	Mundakayam	160	157	156	156	157	157	157	156	156	155	154	156
7.	Munnar	173	170	170	171	171	171	172	172	173	173	173	175
8.	Ernakulam	158	156	156	157	158	159	159	158	159	159	158	159
9.	Chalakkudy	159	156	155	156	157	158	159	157	158	157	158	159
10.	Trichur	159	157	157	157	158	159	159	158	159	159	159	160
11.	Palghat	161	159	158	158	159	159	160	160	160	161	162	163
12.	Malappuram	160	157	157	159	161	161	161	161	163	163	163	164
13.	Kozhikode	163	161	161	162	163	164	165	164	165	164	163	164
14.	Meppadi	163	161	161	163	164	165	166	166	168	167	169	169
15.	Cannanore	156	154	154	155	156	157	158	158	158	158	157	158

Statement Showing the State average of Retail Prices of Essential Commodities

(In Rs.)

Commodity	Unit	28-1-1977	25-2-1977	25-3-1977	29-1-1977	27-5-1977	24-6-1977	29-7-1977	26-8-1977	30-9-1977	28-10-1977	25-11-1977	30-12-1977	27-1-1978
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. Rice (O. M.)	Kg.	2.19	2.21	2.43	2.37	2.36	2.49	2.48	2.54	2.15	2.27..	2.25	2.21	2.11
2. Greengram	"	2.58	2.68	2.85	3.05	3.24	3.32	3.34	3.32	2.98	2.90	3.15	3.46	3.47
3. Blackgram	"	3.00	3.07	3.13	3.18	2.23	3.38	3.50	3.56	3.53	3.32	3.23	3.30	3.32
4. Redgram	"	2.34	2.37	2.49	2.54	2.63	2.68	2.69	2.71	2.72	2.73	2.81	2.93	2.87
5. Dhall	"	3.36	4.29	4.14	3.98	3.95	3.99	4.08	4.12	4.55	4.59	5.01	5.26	5.05
6. Coconut oil	"	12.45	12.83	10.46	10.51	10.89	10.23	10.79	10.78	12.28	11.98	13.36	13.00	11.71
7. Groundnut oil	"	9.76	12.30	11.94	10.37	11.22	11.38	11.54	11.62	9.80	9.99	9.46	9.70	9.52
8. Refined oil	"	11.28	12.64	12.15	11.87	13.11	12.45	13.45	12.62	11.66	12.23	12.54	12.00	11.86
9. Gingelly oil	"	11.38	11.70	11.67	11.80	11.67	11.30	11.07	10.85	10.52	9.94	10.04	10.91	10.73
10. Tapioca	"	0.49	0.52	0.53	0.51	0.53	0.52	0.52	0.51	0.51	0.50	0.49	0.49	0.50
11. Chennai	"	0.77	0.84	0.99	1.31	1.61	1.38	0.99	0.88	0.84	0.81	0.82	0.84	0.87.
12. Banana	"	1.97	2.08	2.09	1.77	2.19	2.24	2.25	2.29	2.16	1.92	1.70	1.74	1.92
13. Milk (Cow's)	Ltr.	2.32	2.32	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.34	2.35	2.34	2.36
14. Egg. (Hen's)	Doz.	4.54	3.85	4.01	3.72	4.23	4.54	4.87	3.79	4.60	4.65	4.88	5.17	4.81
15. Mutton	Kg.	10.03	9.88	9.88	10.40	10.60	11.20	11.20	11.20	11.50	11.50	11.80	11.80	11.90
16. Potato	"	1.25	1.37	1.41	1.77	1.91	1.64	1.88	1.35	1.39	1.60	1.70	1.72	1.75
17. Coriander	"	8.77	8.56	7.68	8.01	8.15	8.18	7.98	7.78	8.05	7.94	8.19	7.94	7.40
18. Chillies	"	8.86	10.19	9.61	9.35	9.15	9.05	9.07	9.41	8.92	9.14	10.34	12.25	10.82
19. Onion	"	1.62	0.97	0.94	1.26	1.67	1.82	1.52	1.16	1.41	1.56	1.80	2.41	1.77
20. Tamarind	"	3.46	3.04	2.97	3.04	3.09	3.12	3.35	3.39	3.49	3.59	3.58	3.47	3.47
21. Tea (Brooke-bond A-1 dust)	"	17.95	18.56	18.48	20.02	18.89	18.90	18.94	18.94	18.90	18.95	18.95	18.95	18.65
22. Coffee powder	"	17.82	18.30	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32
23. Sugar	Kg.	4.41	4.43	4.31	4.27	4.30	4.20	4.24	4.18	4.06	3.88	3.76	3.99	3.67
24. Coconut (with 100 husk)	100 Nos.	100.75	104.25	90.75	90.75	91.30	88.30	91.75	93.30	105.00	109.25	115.30	115.70	116.30
25. Tobacco	Kg.	13.40	12.85	12.55	12.50	13.10	13.15	13.00	12.65	11.50	11.10	11.15	12.85	13.05
26. Firewood	Qtl.	17.80	17.80	17.85	17.75	17.75	18.25	17.75	17.94	18.60	18.60	18.60	19.55	19.55

APPENDIX 3.5
Wholesale Price Index of Agricultural Commodities—Kerala 1977

(Base 1952-53=100)

SL No	Group	January	February	March	April	May	June	July	August	September	October	November	December	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
27.	Mundu (Mull)	8.63	8.91	8.95	9.05	9.08	9.42	9.52	9.38	9.51	9.72	9.70	9.73	9.78
28.	Mundu (Kora)	6.51	6.76	6.91	7.23	7.40	7.54	7.54	7.49	7.51	7.52	7.42	7.33	7.44
29.	Paper	1.62	1.62	1.57	1.62	1.63	1.65	1.67	1.71	1.74	1.77	1.77	1.79	1.81
30.	Washing Soda	1.79	1.75	1.75	1.75	1.75	1.76	1.72	1.72	1.72	1.70	1.69	1.69	1.68
31.	Washing Soap (Sunlight Bar)	1.50	1.66	1.54	1.52	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.51
32.	Toilet Soap	1.29	1.34	1.30	1.28	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.30
33.	Razor blade (Prince)	0.65	0.64	0.65	0.65	0.65	0.63	0.64	0.67	0.64	0.65	0.65	0.50	0.56
34.	Tooth Paste	2.60	2.61	2.61	2.61	2.61	2.61	2.62	2.62	2.62	2.62	2.62	2.62	2.62
35.	Asacin	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 (40W— Osram)	2.80	2.78	2.78	2.79	2.79	2.80	2.78	2.78	2.80	2.80	2.80	2.79	2.79
37.	Aluminium Cooling pot	23.80	23.80	23.80	23.90	24.00	24.10	24.30	24.30	24.20	24.40	24.40	24.71	25.12
38.	Cement	20.22	20.23	20.35	20.42	20.12	20.41	20.35	20.43	20.53	20.42	20.77	21.03	21.32
39.	Baby food (Amul)	19.21	19.21	19.21	19.21	20.56	20.70	20.72	20.72	20.72	20.67	20.67	20.72	20.67
40.	Torch Battery (Eveready 950)	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.68	1.67	1.67	1.67	1.67	1.67
1.	Foodgrains (Rice)	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7	318.7
2.	Molasses	400.6	368.6	360.1	373.6	384.5	371.8	336.0	349.2	329.3	359.4	439.9	343.4	368.0
3.	Condiments and Spices	301.2	308.0	316.9	341.7	348.3	340.6	316.2	307.1	394.0	286.8	264.3	280.7	308.8
4.	Fruits and vegetables	361.1	414.4	418.2	491.1	544.0	544.8	542.7	537.9	534.3	528.9	521.1	519.3	496.5
5.	Food crops	325.6	334.7	336.5	353.3	363.7	362.2	356.7	354.8	351.4	350.3	547.9	347.2	348.7
6.	Oil seeds	700.7	663.3	596.3	579.7	577.9	542.0	542.4	539.8	582.0	616.7	639.0	658.7	605.7
7.	Plantation crops	247.4	282.5	338.0	367.6	343.5	324.0	307.9	306.7	305.3	302.9	295.8	293.3	309.6
8.	Non-food crops	563.8	548.3	518.3	515.6	507.1	476.2	471.6	469.4	498.4	521.9	535.5	569.3	516.3
	All crops	412.5	412.6	402.9	412.5	416.0	403.8	398.6	396.6	405.1	412.9	416.3	428.3	409.8

APPENDIX 3.6

Wholesale Price Index of Agricultural Commodities—Kerala

(Base 1952-53=100)

Sl. No.	Group	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Food Grains (Rice)	155	181	208	209	209	209	233	297	319	319	319
2	Molasses	256	289	175	172	239	272	280	282	416	423	368
3	Condiments and spices	179	179	212	234	171	139	161	222	218	318	309
4	Fruits and vegetables	185	214	195	217	208	234	306	402	385	380	497
5	Food crops	167	190	205	213	203	204	235	302	317	332	349
6	Oil Seeds	272	273	263	369	303	287	466	617	479	525	606
7	Plantation Crops	118	123	133	141	138	139	154	215	247	236	310
8	Non food crops	226	228	223	300	253	242	372	496	409	438	516
	All crops	188	204	212	245	222	218	285	373	350	371	410

Source: Bureau of Economics and Statistics.

APPENDIX 3.7

Farm Commodity Prices—Kerala

Commodity Months	Paddy per Quintal		Tapioca per Quintal		Coconut per 1000 nos.		Pepper per Quintal		Ginger per Quintal	
	1976	1977	1976	1977	1976	1977	1976	1977	1976	1977
January	170.45	136.14	40.71	35.26	722.10	1045.60	1070.59	1530.77	..	1055.89
February	166.30	130.21	41.03	34.22	712.20	1005.30	1070.87	1523.46	639.63	1112.99
March	168.24	138.75	41.01	35.35	715.40	914.60	1185.70	1618.97	742.04	1479.41
April	164.93	145.37	40.78	34.96	744.90	826.20	1264.36	1658.48	962.00	1525.16
May	154.88	145.51	39.80	35.63	695.90	901.10	1287.58	1665.28	1036.19	1537.66
June	166.30	147.16	38.95	33.18	679.90	844.10	1422.32	1686.77	1448.53	1496.54
July	174.30	147.02	39.09	32.28	734.00	859.00	1498.94	1695.47	1489.89	1502.69
August	164.11	145.92	38.08	31.62	739.20	870.40	1465.57	1613.47	1500.00	1475.50
September	149.23	136.41	36.67	30.88	879.30	938.00	1488.01	1630.36	1623.39	1477.86
October	138.62	129.52	36.11	29.37	973.50	974.40	1544.48	1563.64	1625.00	1395.67
November	140.41	133.38	35.42	28.23	1068.20	1083.50	1570.21	1591.44	1279.00	1161.36
December	144.54	135.03	35.96	29.13	1092.80	1114.20	1395.74	1585.83	971.00	1027.14

Source: Bureau of Economics and Statistics.

APPENDIX 3.8

Availability of Food in the State (1971-77)

Particulars	Unit	1971	1972	1973	1974	1975	1976	1977 (provisional)
1. Population of the State as on 1st April Lakhs		214.7	219.7	224.7	229.8	234.8	239.5	241.5
2. Production of rice in the State	Lakh tonnes	12.98	13.52	13.76	12.57	13.34	13.29	12.54
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
3.† Import of rice on State account	"	7.47	7.74	7.20	7.44	5.12	9.02	15.03
4. Import of wheat on State account	"	0.55	0.83	1.98	2.42	5.18	3.89	2.07
5. Production of raw tapioca	"	46.17	54.29	56.29	56.60	56.25	53.90	52.24
6.(a)** Availability of tapioca for consumption	"	34.63	40.72	42.22	42.45	42.19	40.43	39.18
6.(b) Availability of tapioca for consumption in rice equivalent	"	15.60	18.34	19.23	19.12	19.00	18.21	17.65

* Ten per cent of production is set apart for seed, feed and wastage and the rest alone is accounted for as available for consumption.

** 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.

† Firm data is not available on the import of rice into the State by private trade. Hence availability through this source is not included.

APPENDIX 4.1

District-wise Average Monthly Rainfall

(In m.m.)

District	1976						1977					
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	June
Trivandrum	151.2	140.9	46.1	146.6	229.5	33.0	4.1	19.9	33.2	88.2	402.7	228.3
Quilon	353.1	259.7	110.7	322.6	362.4	38.1	0.4	44.2	47.7	145.5	497.5	411.8
Alleppy	454.6	298.9	99.8	275.9	426.5	33.3	..	13.6	74.8	139.8	599.1	698.7
Kottayam	549.2	309.3	106.7	250.3	354.6	42.6	3.0	11.1	67.2	233.7	421.5	603.9
Idukki	676.6	424.4	164.2	250.6	253.9	28.0	..	13.0	19.5	145.5	254.6	495.2
Ermakulam	680.5	391.5	94.1	327.1	363.1	44.8	..	18.4	44.3	206.0	369.3	598.8
Trichur	732.1	440.6	130.8	200.0	217.3	20.6	..	7.9	24.6	47.3	317.1	678.8
Palghat	394.8	204.5	74.3	197.5	337.2	10.5	..	6.0	30.2	94.1	143.7	473.0
Malappuram	658.8	372.0	75.6	237.5	296.8	37.2	..	..	28.1	88.3	278.3	649.5
Kozhikode	974.7	445.8	135.0	212.5	360.2	39.7	..	8.6	10.8	60.1	305.6	1005.4
Cannanore	1034.9	429.4	185.2	90.2	209.4	13.5	..	12.4	7.6	30.8	208.0	812.8
State	607.3	337.9	111.1	228.3	310.1	31.0	0.7	13.6	35.3	107.2	345.2	608.4
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

Source: Bureau of Economics and Statistics

APPENDIX 4.2
 Classification of Areas in each District during 1976-77 (Provisional estimates)

District	Total geographical area according to village papers	Forest	Land put to non-agricultural uses	Barren and uncultivable	Permanent pastures & grazing land	Land under miscellaneous tree crops	Cultivable waste land	Fallow other than current fallow	Current fallow	Net Area sown	Area sown more than once	Total cropped area
Trivandrum	218600	49861	16999	1466	36	346	1017	1670	1172	146083	91499	237582
Quilon	474290	236048	24269	3302	75	587	1395	1289	1654	205671	134668	340339
Alleppey	182270	518	27855	847	38	287	2068	634	2013	148010	80684	228694
Kottayam	219550	8141	17686	2212	279	803	1947	1614	1856	185012	67085	252097
Idukki	515048	260993	13411	17346	8219	19830	36384	1048	1318	156499	7640	164139
Ernakulam	235319	8123	29380	1561	476	2432	5316	2060	4637	181334	53416	234750
Trichur	299390	103619	18986	4158	328	1803	4968	1379	4067	160082	79429	299511
Palghat	498980	136257	31587	11273	1577	8297	18406	4233	6942	220408	102689	329097
Malappuram	363230	103417	14157	6930	720	2970	13157	2833	5621	213425	66949	280374
Kozhikode	371150	90876	21474	5023	637	8824	6610	969	1572	235165	42233	277398
Cannanore	567670	83656	44584	24719	3710	26489	24458	4535	6557	348962	39502	388464
State	3885497	1081509	260388	78937	16095	72668	115726	22264	37409	2200601	765794	2966395

Source: Bureau of Economics and Statistics.

APPENDIX 4.3

Area—Production and Average Yield of Principal Crops in Kerala

Crops (1)	Area (Hectares)		Production (in tonnes)		Average yield (Kg/Hect)	
	1975-76 (2)	1976-77** (3)	1975-76 (4)	1976-77** (5)	1975-76 (6)	1976-77** (7)
I. Food Crops:						
1. Rice	876022	854374	1329403	1254003	1517.5	1467.7
2. Pulses	37485	37276	14169	14096	378.0	378.0
3. Sugarcane	7596	7596	41831	41831	5506	5506
4. Pepper	108251	110580	25580	30600	236	276
5. Ginger	11671	12017	28840	27710	2471	2305
6. Turmeric	2477	2495	2608	2384	1052	955
7. Cardamom	54004	51681	2050	1420	38	27
8. Betle nuts *	76618	76553	11387	11373	1486	1485
9. Banana & other plantains	52280	52327	395042	395431	7556	7556
10. Cashewnut	109057	114805	119888	128810	1099	1122
11. Tapioca	326865	327780	5390217	5223806	16490	15937
12. Other Food Crops						
Total Food Crops	1909205	1893397	..	..	..	..
II. Non Food Crops:						
1. Groundnut	26679	26679	35268	35268	1322	1322
2. Sesamum	16785	16185	4271	4336	254	268
3. Coconut*	692945	694558	3439	3443	4962	4957
4. Cotton	7562	7249	N.A.	N.A.	N.A.	N.A.
5. Tobacco	607	607	1230	1230	2026	2026
6. Tea	37698	36161	45801	41664	1214	1152
7. Coffee	41778	40502	17528	14995	419	355
8. Rubber	206686	209723	126265	139349	611	664
9. Other non food crops						
Total non food crops	1072074	1072998	..	..	..	..
Total cropped area	2981279	2966395	..	..	..	..

* Production in million nuts

** Figures are provisional.

Source: Bureau of Economics and Statistics.

APPENDIX 4.4

Consumption of Fertilizers in Kerala (in tonnes)

Year	Nitrogen (N)	Nutrients Phosphorous (P ₂ O ₅)	Potash (K ₂ O)	Total	(1)	(2)	(3)	(4)	(5)
(1)	(2)	(3)	(4)	(5)					
1965-67					1965-66	15251	12773	11305	39329
1966-68					1966-67	21016	13373	11030	45419
1967-69					1967-68	24000	15689	14853	54542
1968-70					1968-69	28574	20442	21514	70530
1969-71					1969-70	30120	20947	21543	72610
1970-72					1970-71	26335	14183	16189	56707
1971-73					1971-72	31257	15670	18044	64971
1972-74					1972-73	37484	22314	20470	79868
1973-75					1973-74	31691	22609	24546	78846
1974-76					1974-75	32143	17187	18032	67362
1975-77					1975-76	31654	14374	16643	62671
					1976-77	33553	15696	20157	69406

Source: Department of Agriculture

APPENDIX 4.5

District-wise Area Under Principal Crops in Kerala 1976-77*

(Area in Hectares)

Sl. No.	District Principal crops	(Area in Hectares)													Total
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		(14)
1	Rice	37976	49657	88591	49247	15724	99327	118065	171022	91580	51726	81459	854374		
2	Jowar	..	..	..	..	10	..	61	3125	..	..	..	3196
3	Ragi	36	88	102	5	150	21	25	4212	91	25	64	4819		
4	Other Cereals and millets	..	..	..	..	..	15	227	4150	155	..	..	4547
5	Other Pulses	4040	3662	1058	1722	1370	2476	4033	9923	2122	1112	5758	37276		
6	Gur	..	..	..	..	..	..	..	3020	..	..	..	3020
7	Sugarcane	72	1820	2246	289	1948	28	25	1080	15	17	56	7596		
8	Others (Palmyrah)	482	152	27	478	210	261	1121	4115	1800	1171	1118	10935		
9	Pepper	5856	9628	5231	12998	9982	6304	1678	851	6049	19658	32405	110580		
10	Chillies	..	..	..	..	..	..	..	830	448	..	1718	2996
11	Ginger	..	214	..	3167	1051	814	76	907	1855	3519	414	12017		
12	Turmeric	10	51	55	329	159	679	44	376	29	392	371	2495		
13	Cardamom	164	149	..	..	43075	..	7	3455	182	3384	1265	51681
14	Betalnut	4525	7844	3552	3911	1808	7170	11350	2454	10982	8142	15015	76553		
15	Mango	6997	8617	4788	7094	2497	4329	4028	7191	6873	7563	8098	68215		
16	Jack	5463	5585	1877	5045	1961	2784	2495	3988	4596	8540	9431	50174		
17	Banana	613	1471	624	1223	108	1361	1384	587	961	945	1837	11114		
18	Other Plantain	3241	4323	2910	4257	2228	3604	4970	3483	3627	3499	5071	41213		
19	Cashewnut	5944	8011	3216	1066	1076	3375	6396	12378	20369	3642	49932	114805		
20	Tapioca	21315	88538	24568	35075	10055	17091	12178	8363	27805	9143	23649	327780		
21	Sweet Potato	89	233	61	33	472	53	190	740	662	379	2970	5882		
22	Ground nut	..	..	..	..	..	..	..	26679	..	..	..	26679
23	Sesamum	33	3213	7127	85	382	1867	903	1291	1120	36	178	16185		
24	Coconut	74074	98073	72834	57005	11472	50726	50699	16994	70269	97448	94964	694558		
25	Cotton	..	..	..	..	..	..	..	7249	..	..	..	7249
26	Tobacco	..	..	..	..	..	..	..	..	..	..	..	607
27	Tea	1070	2021	..	2333	24063	30	438	662	174	3885	1485	36161		
28	Coffee	15	78	6	1305	3546	280	24	1965	..	24339	8944	40502		
29	Rubber	7907	33500	3847	55291	15614	20558	8924	8970	17569	16984	20559	209723		
30	Fodder Crops	37	84	35	185	393	18	15	..	..	..	151	918
31	Green Manure Crops	384	678	56	534	272	266	229	4429	3940	3646	3448	17882		
	Total Food Crops	152513	201410	144299	134019	102392	159777	177596	252284	185611	129977	253379	1893997		
	Total non-Food Crops	85019	138929	84395	118078	61607	74973	61915	70813	94763	147421	135085	1072996		
	Total cropped area	237532	340339	228694	252097	164199	234750	239511	323097	280374	277998	388464	2966993		

* Provisional figures

Source—Bureau of Economics and statistics

Annexure 4.6
District-wise production of principal crops in Kerala during 1976-77*

Crops/Districts	(in Tonnes)												Total (13)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
	Trivandrum	Quilon	Alleppey	Kottayam	Idukki	Ernakulam	Trichur	Palghat	Malappuram	Kozhikode	Cannanore		
Rice	59096	66649	162025	78198	29788	197213	148172	301308	110050	54985	118699	1254003	
Jowar	--	--	--	--	--	--	27	1407	--	--	4	1498	
Ragi	37	91	106	5	156	22	26	4972	94	26	66	5001	
Other Cereals & Millets	--	--	--	--	--	10	151	3083	108	--	--	3297	
Gur	--	--	--	--	--	--	--	731	--	--	--	731	
Other Pulses	1793	464	443	493	704	1256	1547	2648	841	441	3553	14096	
Sugarcane (Gur)	390	8977	11099	1599	11631	112	195	7528	81	92	187	41881	
Sesamum	16	813	1810	30	111	646	475	192	187,	10	46	4936	
Coconut (Million Nuts)	428	485	404	282	61	269	299	56	311	523	325	9443	
Tobacco	--	--	--	--	--	--	--	--	--	--	--	1290	
Tea	804	851	--	664	34340	--	913	1275	133	1214	1450	41644	
Coffee	3	15	1	248	675	53	5	755	--	9243	3397	14995	
Rubber	5973	26032	2468	35340	10842	13443	7833	4453	10696	11126	11743	199849	
Pepper	1728	3678	968	2429	1506	1557	482	237	1700	7922	8398	30600	
Chillies	--	--	--	--	--	--	--	732	360	--	1562	2654	
Ginger	--	515	--	9932	2375	2014	77	1461	2406	8020	910	27710	
Turmeric	10	60	54	275	160	669	35	276	73	378	444	2384	
Cardamom	--	--	--	--	--	--	--	--	--	--	--	1420**	
Betelnuts (Million Nuts)	703	1580	353	392	194	866	1688	310	1707	1503	1877	11373	
Banana	4466	10718	4546	5911	787	9916	1084	4277	7002	6885	13384	80976	
Other Plantains	24729	32984	22203	32481	17000	27499	37921	26575	27674	26697	38692	314455	
Cashew nut	5996	8988	3608	1196	1207	3787	7176	13888	22854	4086	56024	128810	
Tapioca	955621	1469731	371434	747098	191045	264911	208244	137153	336441	109716	430412	5223806	
Sweet Potato	400	1049	275	148	2124	238	855	3330	2979	1709	13365	26472	
Ground nut	--	--	--	--	--	--	--	35268	--	--	--	35268	

* Provisional figures
** District-wise figures not available
Source—Bureau of Economics and Statistics

APPENDIX 4.7

District Productivity of Principal Crops in Kerala 1976-77 *

(Kg. per hectare)

Districts/Crops	Trivandrum	Quilon	Alleppey	Kottayam	Idukki	Ernakulam	Trichur	Palghat	Malappuram	Kozhikode	Calicut	State average
Rice	1396	1342	1120	1586	1510	1381	1255	1761	1202	1063	1946	1467
Jowar	..	..	..	..	..	..	442	450	..	..	..	457
Ragi	1027	1034	1039	1000	1004	1047	1040	1037	940	1040	1030	1037
Other cereals and millets	..	..	..	..	..	909	665	730	664	..	..	725
Other pulses	428	126	418	286	513	507	383	266	396	372	617	378
Sugarcane	5416	4932	4941	5530	5970	4000	5400	6970	5400	5417	3340	5506
Sesamum	484	213	253	352	334	346	526	149	167	277	258	268
Coconut (nuts)	5778	4945	5546	4946	5317	5218	5897	3295	4395	5366	3422	4957
Tea	751	421	..	284	1427	..	2084	1888	764	312	976	1152
Coffee	200	198	166	199	190	189	208	384	..	379	870	355
Rubber	679	777	641	639	634	654	877	496	608	655	571	664
Pepper	295	382	185	187	151	246	287	278	281	403	259	276
Chillies	..	..	..	..	..	..	..	881	803	..	909	885
Ginger	..	2406	..	3136	2259	2474	1013	1610	1297	2279	2198	2305
Turmeric	1000	1176	981	835	1006	985	795	734	2517	964	1196	955
Betal nuts	1553	2014	993	1002	1206	1207	1487	1263	1554	1845	1261	1485
Banana	7285	7286	7285	4841	7287	7275	7821	7286	7286	7286	7685	7185
Other plantains	7630	7629	7630	7630	7631	7630	7629	7630	7630	7630	7630	7338
Cashewnuts	1121	1121	1122	1121	1121	1119	1122	1121	1121	1122	1122	1122
Tapioca	14833	16600	15118	21300	19000	15500	17100	16400	12100	11995	18200	15937
Sweet potato	4494	4502	1643	4484	4500	4490	4500	4500	4980	4510	4500	4500
Ground nut	..	..	..	..	..	..	..	1322	..	..	..	1322

* based on provisional figures.

APPENDIX 4.8

Area, production and Productivity of Rubber in Kerala

Year	Area (Hectares)	Production (Tonnes)	Yield per hectare (Kg.)
(1)	(2)	(3)	(4)
1973-74	199604	118016	591
1974-75	202318	121558	608
1975-76	205383	128769	627
1976-77	230563	139343	802

Source: Rubber Board.

APPENDIX 4.9

*Price of Natural Rubber in Kottayam Market
(Rupees/Quintal for RMA. 3,4 and 5 Grades)*

Month	1974	1975	1976	1977
(1)	(2)	(3)	(4)	(5)
January	599.58	904.40	696.31	606.30
February	647.92	874.37	676.67	615.83
March	650.31	826.40	656.20	599.73
April	689.40	831.72	654.70	608.80
May	836.40	793.70	591.73	622.60
June	899.40	807.12	585.19	612.30
July	986.67	795.77	628.89	630.10
August	1003.80	764.78	599.71	656.00
September	957.50	763.02	565.50	638.73
October	777.30	701.39	536.30	649.50
November	716.85	721.75	595.10	627.80
December	718.35	715.00	572.50	..
Average	782.79	791.52	613.23	..

Source: Rubber Board.

APPENDIX 4.10

State-wise Distribution of Tea Estates by Size for 1975

States	Upto 5 Hectares		Above 5 Hectares and below 50 hectares		Above 50 Hectares and below 100 hectares		Above 100 Hectares and below 200 hectares		Above 200 Hectares and below 400 hectares		Area above 400 Hectares	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	No. of Estates	Area in Hectares	No. of Estate	Area in Hectares	No. of Estate	Area in Hectares	No. of estate	Area in Hectares	No. of Estate	Area in Hectares	No. of Estate	Area in Hectares
Assam	13	38	105	2859	97	6818	151	21009	228	66390	162	91678
West Bengal	6	11	10	278	15	1139	71	10882	114	32408	81	44067
Tripura	1	4	7	207	20	1396	24	3454	2	406	..	..
Bihar	--	..	1	38	--	--	1	134	1	287	..	..
Uttar Pradesh	2	6	17	304	7	554	3	466	2	487	..	..
Total North India*	22	59	140	3686	139	9907	250	35945	347	99978	243	135745
Kerala	3953	1833	123	1766	20	1493	32	4742	57	16500	18	10078
Tamil Nadu	6065	5878	347	3904	24	1837	28	4369	89	11546	17	8077
Karnataka	22	5	4	73	1	65	4	627	4	1007	..	..
Total South India	10020	7716	474	5743	45	3395	64	9738	100	29053	35	18155
All India	10042	7775	614	9429	184	13302	314	45683	447	129031	278	153900

* Excluding Himachal Pradesh

APPENDIX 4.11

Area, Production and Yield per Hectare of Tea in Different States

	Area in hectares as on 31st March			Production in Tonnes			Average Yield per hectare in Kg.		
	1974	1975	1976	1974	1975	1976	1974	1975	1976
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Assam	187408	188792	189338	263281	263055	276308	1416	1393	1459
West Bengal	88224	88785	88799	118028	111860	117723	1388	1260	1326
Tripura	5421	5467	5527	4166	3674	4292	768	672	777
Bihar	459	459	459	37	18	29	81	39	63
Uttar Pradesh	1817	1817	1799	908	580	854	500	319	475
Himachal Pradesh	4183	4183	4183	1388	1391	1433	332	338	343
Tamil Nadu	35370	35481	36079	54676	60452	59825	1546	1704	1658
Karnataka	1874	1774	1764	2830	2892	3440	1510	1630	1950
Kerala	36907	36347	36327	42161	43215	47913	1142	1189	1319
Total	361663	363105	364275	489475	487137	511817	1353	1342	1405

Source: Tea Board

APPENDIX 4.12

Distribution of Coffee Plantations in Kerala (1975-76)

Size group (Hectares)	No. of Units	Area Hectares
(1)	(2)	(3)
<2	34670	18563
2-4	1839	6315
4-10	802	5445
10-20	168	2236
20-40	54	1476
40-60	28	1339
60-80	8	568
80-100	11	989
100 and above	24	3571
Total	37604	40502

APPENDIX 4.13

Disposal of Cases relating to Tenancy and Kudikidappu

Items	Tenancy		Kudikidappu	
	As on 31-12-1976	As on 31-12-1977	As on 31-12-1976	As on 31-12-1977
(1)	(2)	(3)	(4)	(5)
I. Total number of applications Received	3148927	3496682	401573	413214
II DISPOSAL OF CASES:				
(1) Allowed	1819941	2263821	247551	254868

	(1)	(2)	(3)	(4)	(5)
(2) Rejected		462735	639788	133094	437077
(3) Other Disposals		318029	397914	16836	18408
(4) Total		2600705	3301523	397481	411153
III. Balance to be disposed of		548222	135159	4092	2061
IV. Not of certificates of purchase issued		1282066	2075405	210132	234198

APPENDIX 4.14
Distribution of Surplus Land

No.	Items	As on 31-12-1976	As on 31-12-1977
1.	Total number of ceiling returns filed	45516	58082
2.	Total number of ceiling returns decided	36834	50486
3.	Balance to be decided (No.)	8682	8416
4.	Area ordered to be surrendered (Acres)	106430	121584
5.	Area already taken possession of (Acres)	52088	64704
6.	Area already assigned (Acres)	26270	41069
7.	Stay against assignment	4589	10279
8.	Area covered by assignment Proceedings	13354	1408
9.	Area reserved for Public purposes	7870	11955

APPENDIX 4.15

Principal Species of Marine Fish catches (Kerala)

(Quantity in tonnes)

Species	Average for 1969-73		1974		1975		1976	
	Actual	%	Actual	%	Actual	%	Actual	%
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Elasmobranches	6779	1.9	10338	2.5	10292	2.4	7308	2.2
2. Cat fishes	13578	3.7	33526	8.0	32603	7.8	12743	4.0
3. Chirocentrus	589	0.2	..	..	..	..	807	0.2
4. (a) Oil Sardine	150770	40.2	102135	24.3	97183	23.1	123937	37.4
(b) Other Sardine	21240	5.6	31335	7.2	33652	8.0	34305	10.4
5. Anchoviella	9778	2.6	19463	4.6	11432	2.7	9987	3.0
6. Thriissocles and other clupeaids	5289	1.4	2644	0.6	2636	0.6	3906	1.2
7. Perches	4588	1.2	20970	5.0	14741	3.4	3069	1.0
8. Red Mulletts	1579	0.4	3881	1.0	..	..	2577	0.8
9. Sciaenids	6198	1.6	9220	2.2	16811	4.0	6955	2.1
10. Ribbon fish	12821	3.4	30192	7.2	15175	3.6	7687	2.3
11. Caranx	8038	2.1	5256	1.3	7190	1.8	10478	3.2
12. Leiognathus	12445	3.3	17518	4.2	5211	1.2	2727	0.8
13. Lactarius	3086	0.8	2904	0.7	983	0.2	468	0.1
14. Pomfrets	1617	0.4	1500	0.4	1181	0.5	799	0.2
15. Mackerel	46820	12.4	10335	2.5	14930	3.6	19978	6.0
16. Seer fish	1723	0.5	4909	1.2	4065	1.0	5936	1.8
17. Tunnies	2314	0.6	5927	1.4	5845	1.3	12880	3.9
18. Soles	9546	2.5	12771	3.0	6932	1.7	3567	1.0
19. (a) Penaeid prawns	44641	11.9	59815	14.2	77207	18.3	34478	10.4
(b) Non-Penaeid prawns	652	0.2	1014	0.2	755	0.1	35	..
(c) Lobster	..	..	..	..	..	..	50	..
(d) Other Crustaceans	..	..	..	..	..	..	1316	0.4
20. Cephalopods	282	0.1	..	..	..	..	872	0.3
21. Miscellaneous	11007	3.0	34604	8.3	62012	14.7	24162	7.3
Total	375380	100.0	420257	100.0	420836	100.0	331047	100.0

Source: Central Marine Fisheries Research Institute.

APPENDIX 4.16

Fishermen Co-operatives in Kerala

Category	1975-76			1976-77*		
	Number of societies	Membership	Paid up share capital (Rs.lakhs)	Number of societies	Member-ship	Paid up share capital (Rs.lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Credit Societies	153	29837	6.12	132	25140	6.08
M.U.C.S.	728	64562	20.19	618	54713	19.36
Regional Marketing Societies (including Federation)	18	1537	48.87	18	1640	52.15
Total	899	95936	75.18	768	81493	77.59

*Note: 1. No of societies registered anew 2 M.U.C.S.
2. No. of Societies liquidated during the year comprised 21 credit societies and 112 M.U.C.S. (Total 133 Societies.)

4/853/MC.

APPENDIX 4.17

Division-wise Area of Forests in Kerala (as on 31-3-1977)

Division	Area (in hectares)
(1)	(2)
1. Trivandrum	57076
2. Thenmala	56762
3. Punalur	28005
4. Konni	34380
5. Ranni	105746
6. Kottayam	73082
7. Malayattur	67950
8. Munnar	89660
9. Chalakudy	86091
10. Trichur	52388
11. Wild Life Division, Thekkady	77700
12. Nemmara	48410
13. Nilambur	32469
14. Palghat	37317
15. Kozhikode	24067
16. Wynad	45782
17. Special Division, Kozhikode	370
Total	933255

APPENDIX 4.18

Species-wise Area under Forest Plantations (Area in Hectares)

Name of Species	1975-76	1976-77
(1)	(2)	(3)
1. Teak	63824	65470
2. Softwood	20021	20414
3. Junglewood (Hardwood)	1533	1571
4. Cashew	2995	3482
5. Rosewood	32	59
6. Eucalyptus	32090	32049
7. Mahogany	143	141
8. Bamboo	930	985
9. Rubber	1190	1824
10. Wattle	532	571
11. Sandalwood	3	3
12. Fuelwood	555	715
13. Kongu	20	19
14. Balsa	68	62
15. Cardamom	186	40
16. Pine	404	429
17. Pepper	1	94
18. Mixed Plantations	1094	1149
19. Zylonicum	3	4
20. Others.	919	1063
Total	126543	130144

APPENDIX 4.19

Item-wise Out-turn of Forest Produce

Item	Units	1975-76	1976-77
(1)	(2)	(3)	(4)
1. Timber-Round logs	Cum	644763*	540643
2. Timber-Round Poles	Nos.	1159153	1416463
3. Sawn and squared timber	cum	1105	485
	Nos.	180915	..
	Tonnes	339.5	..
4. Firewood	Tonnes	218793	264540

APPENDIX 5.1

Physical achievements in Minor Irrigation
District-wise details

District	M. I. Class-I Achievements in ha. during 1976-77		Total at the end of 1976-77		M. I. Class-II Achievements in ha. during 1976-77		Total at the end of 1976-77	
	Net	Gross	Net	Gross	Net	Gross	Net	Gross
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	..	..	866	1300	643	643	8905	8905
Quilon	160	240	436	615	494	494	5404	5404
Alleppey	..	..	3415	3415	399	399	15052	15052
Kottayam	..	..	664	664	175	175	5224	5224
Idukki	..	..	..	..	..	..	1639	1639
Ernakulam	790	1186	1909	2865	..	..	3373	3373
Trichur	129	232	1225	1617	38	813	2244	2244
Palghat	..	..	1333	2666	14	28	2326	2326
Malappuram	272	525	866	1713	1452	2839	8129	8129
Kozhikode	483	483	1402	1402	18	18	3154	3154
Cannanore	..	..	2065	2065	460	460	6811	6811
Total	1834	2666	14181	18322	3693	5869	62261	73482

APPENDIX 4.19 (Contd.)

(1)	(2)	(3)	(4)
5. Charcoal	Tonnes	313	3712
6. Cardamom	Kg.	10600	8290
7. Honey	Kg.	26625	35804
8. Wax.	Kg.	760	1685
9. Scrivelloos	Kg.	..	2750
10. Reeds	Tonnes	15750	59820
11. Rattans	Nos.	244083	165300
12. Bamboos	Nos.	514963	1346550
13. Junglewood posts	Nos.	4415	9145
14. Sleepers-B.G.	Nos.	208767	42163
15. " M. G.	Nos.	52407	13666
15. " Special	Nos.	4870	2464
16. Sandalwood	Kg.	4242	4701

* Include 4154 cum of timber round poles.

APPENDIX 4.20

Abstract of Revenue from forests

Head	Rs. '000		
	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)
A. Sale of Timber and other produce			
1. Timber	157372	183933	219381
2. Firewood and Charcoal	4301	3813	10204
3. Livestock	675	483	417
4. Other items	8683	16197	20394
Total of (A)	171031	204426	230896
B. Other receipts, including interest on arrears of Forest Revenue	11386	15722	12649
C. Grand total (A + B)	182417	220148	263545
D. Deduct Refunds	710	941	1754
E. Total (Net)	181707	219207	261791

APPENDIX 5.1 (Contd.)

District	Lift Irrigation achievements in ha.				Others (IPD DRF etc) achievements in ha.			
	during 1976-77		Total at the end of 1976-77		during 1976-77		Total at the end of 1976-77	
	Net	Gross	Net	Gross	Net	Gross	Net	Gross
Trivandrum	..	..	..	..	943	943	3421	3421
Quilon	..	..	564	1128	351	351	2155	2155
Alleppey	403	403	3395	3395	1448	1448	2010	2010
Kottayam	..	..	224	224	8	8	558	558
Idukki	..	..	..	..	..	..	22	22
Ernakulam	..	..	9640	14054	613	613	654	654
Trichur	102	117	3814	8269	261	688	889	1958
Palghat	..	..	1175	2350	22	44	32	64
Malappuram	..	87	3184	6330	12	24	194	388
Kozhikode	..	..	111	111	255	255	519	519
Cannanore	63	95	335	503	64	64	130	130
Total	568	702	22442	36364	3977	4438	10584	11879

Source: Chief Engineer, Irrigation.

APPENDIX 5.2

Financial Position of the Kerala State Electricity Board

(Rs. in lakhs)

Sl. No.	Item	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)
1.	Gross revenue	2656.77	2981.48	4016.66
2.	Expenditure	2374.91	2793.32	2852.74
3.	Net operating surplus	281.86	188.16	1163.92
4.	Capital investment of the Board	25920.05	28184.79	30808.78
5.	Total loans outstanding	23197.69	25372.65	27277.14

(1)	(2)	(3)	(4)	(5)
6.	Loans raised during the year	2044.47	2642.04	2289.41
7.	Loans repaid during the year	181.77	467.08	384.93
8.	Total interest payable	1320.83	1492.20	1672.18
9.	Interest available for repayment during the year	492.96	568.16	1347.95

Note.—During the years 1974-75, 1975-76 and 1976-77 Rs. 290 lakhs, Rs. 440 lakhs and Rs. 326 lakhs have been received from the State Government towards subsidy for rural electrification works.

APPENDIX 5.3

Consumption of Power and Revenue Collected for the year 1976-77

Sl.No.	Category	No. of Consumers as on 31-3-1977	Connected load as on 31-3-1977 KW	Energy consumed		Revenue collected	
				Million KWH	Percentage to total	Rs.lakhs	Percentage to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Domestic lights & fans	693335	436267	222.89	10.43	537.34	18.23
2.	Domestic heat & small power						
3.	Commercial lights & fans	212717	137369	120.47	5.64	474.06	16.63
4.	Commercial heat & small power						
5.	Industrial (Low & Medium voltage)	29134	287520	183.55	8.59	343.61	12.04
6.	Industrial high voltage+extra high voltage	373	398193	1365.85	63.91	1014.30	35.55
7.	Irrigation	53143	181120	102.63	4.80	122.03	4.28
8.	Public lighting	1395	13552	34.15	1.60	231.84	8.13
9.	Water works & sewage pumping	445	11553	23.40	1.09	37.67	1.32
10.	Bulk supply to licences	5	64965	84.31	3.94	92.56	3.24
Total		990547	1530539	2137.25	100.00	2853.41	100.00

APPENDIX 5.4

Statistics relating to Kerala Power System (as on 31-3-1977)

Sl. No.	Items	Achievement during			As at the end of March 1977
		Unit	1975-76	1976-77	
(1)	(2)	(3)	(4)	(5)	(6)
1.	Installed generating capacity	MW	130	260	1011.5
2.	Maximum demand	MW	571.0	650.4	650.4
3.	Units generated	MKWH	2783.3	3150.9	..
4.	Units purchased	MKWH	2.5	13.2	..
5.	Units sold (including internal sales)	MKWH	2330.8	2680.5	..
6.	Revenue per annum	Rs. lakhs	2981.5	4016.7	..
7.	No. of consumers	No.	84,980	80,167	9,90,547
8.	Total connected load	KW	1,04,420	1,25,714	15,30,539
9.	Towns and villages electrified	No.	20	10	1,212
10.	Transmission and distribution lines (Ct.Kms) KV. lines	220KV lines	137.6	50.0	504.0
	..	110KV lines	1.6	9.9	1361.5
	..	66KV lines	54.0	49.6	1814.6
	..	11KV lines	431.0	1571.0	11755.0
	L.T. lines	LT Lines	1653.0	6692.8	35169.8
11.	Per capita consumption	Units/Year	85.8	88.4	88.4

APPENDIX 5.5

Statement Showing Total Quantity of Power Sold and Receipts by the Sale of Electricity

Particulars of receipt	During 1974-75			During 1975-76			During 1976-77		
	Power sold in MKWH	Income Rs. lakhs	Average revenue per KWH	Power sold in MKWH	Income Rs. lakhs	Average revenue per KWH	Power sold in MKWH	Income Rs. lakhs	Average revenue per KWH
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
I. Domestic									
(a) Lights & fans	168.46	620.93	36.84	200.85	468.64	23.33	222.89	537.34	24.11
(b) Small power									
II. Commercial									
(a) Lights & fans	72.23	332.24	43.58	89.63	380.45	42.45	120.47	439.60	42.07
(b) Small power	13.76	30.52	22.18	14.86	32.39	21.80		34.46	21.56
III. Industrial									
(a) Low & medium voltage	158.07	291.92	18.46	178.29	329.90	18.50	183.55	343.61	18.72
(b) High voltage	1204.38	567.58	4.71	1282.76	692.33	5.40	1365.85	1014.30	7.43
IV. Public lightening	31.19	134.69	43.18	47.25	137.45	29.09	34.15	231.84	67.88
V. Irrigation—agricultural watering	101.89	120.12	11.79	120.32	121.52	10.10	102.63	122.03	11.89
VI. Public water works & sewage pumping	17.06	18.34	10.75	17.58	20.36	11.58	23.40	37.67	16.10
VII. Bulk supply	68.28	63.71	9.33	76.75	56.97	7.42	84.31	92.56	10.98
VIII. Total sale to neighbouring States	..	..	..	302.52	285.20	9.43	543.24	679.05	12.50
Total	1839.32	2180.05	11.85	2330.81	2525.21	10.83	2680.49	3532.46	13.18

District-wise and Industry-wise Distribution of registered

STATE—KERALA

For the year ending

Sl.No.	Name of Industry	Trivandrum		Quilon		Alleppey		Kottayam		Idukki	
		A	B	A	B	A	B	A	B	A	B
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Oil	23	106	25	133	53	413	18	68	9	55
2.	Tea	5	148	7	185	..	..	4	26	73	3443
3.	Cashew	22	9784	231	114342	4	5211	..	..	..	..
4.	Beedi	..	..	..	..	..	..	..	..	..	..
5.	Cotton Textiles	9	1493	1	1077	4	489	2	270	1	10
6.	Coir	3	57	1	43	189	2999	3	39	..	..
7.	Saw Mills	8	61	80	465	29	151	45	293	2	22
8.	Plywood, Splints and Veeners	5	144	32	1132	11	415	19	960	3	91
9.	Printing	44	1336	35	440	28	194	64	793	3	25
10.	Rubber and Rubber Products	28	655	37	570	15	283	152	2292	15	203
11.	Chemical & Chemical Products (Except Soap & Match)	6	840	6	148	9	342	15	447	3	87
12.	Matches	9	100	19	215	7	68	2	30	..	..
13.	Soaps	1	5	..	..	2	21	2	5	..	..
14.	General Engg.	9	476	11	224	15	113	14	85	2	55
15.	Tiles	1	33	45	2102	3	23	14	144	..	..
16.	Automobile Repairing	28	2192	13	232	15	362	44	627	6	136
17.	Other Industries	73	1993	181	5356	129	3727	140	1459	11	323
18.	Total	274	19423	724	126664	513	14811	538	7538	128	4450

6.1

Working Factories and Workers Therein

31-12-1976

Ernakulam		Trichur		Palghat		Malappuram		Kozhikode		Cannanore		State	
A	B	A	B	A	B	A	B	A	B	A	B	A	B
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
44	238	81	566	9	68	10	62	34	193	20	141	326	2043
..	..	1	70	3	122	..	..	13	903	3	121	109	5018
4	913	5	2414	..	..	..	..	3	1167	3	1433	272	135264
3	27	3	58	15	543	..	..	1	25	10	279	32	932
6	1269	8	2539	13	1205	1	164	49	1981	538	11258	632	21755
18	368	7	62	..	..	3	43	36	685	11	107	271	4403
129	970	105	671	83	407	31	160	102	1296	75	850	689	5346
29	795	28	690	48	1191	12	205	68	1407	38	2193	293	9223
97	1270	52	541	29	486	9	57	66	1110	47	289	474	6541
57	1349	39	378	16	116	16	146	63	431	28	163	466	6586
35	5127	19	391	10	277	2	374	19	231	4	47	128	8311
3	82	25	295	13	291	2	33	18	236	3	35	101	1385
16	981	4	77	..	..	..	..	15	430	2	17	42	1536
63	532	41	667	15	242	1	5	30	338	28	190	229	2927
30	571	135	4255	12	575	3	324	34	3300	9	667	286	11994
59	1467	34	373	33	266	6	43	93	1046	62	435	393	7179
488	18901	225	4564	331	4656	35	321	397	7647	168	1811	2178	50758
1081	34860	812	18611	630	10445	131	1937	1041	22426	1049	20036	6921	281201

- A. Number of registered working factories.
- B. Average daily employment.

APPENDIX 6.2
Government Owned Companies—Main Features

(Rs. in lakhs)

Name of company	Paid up Capital in		Persons (Nos.) employed in		Net profit/loss during		Value of production in		Sales during		Sales in 1976-77 within		Total	
	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	Kerala	Outside Kerala		Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1 Trivandrum Rubber works	57.70	57.70	412	374	-34.11	-18.40	99.79	128.17	116.15	156.69	156.69*	..	..	156.69
2 Kerala Ceramics	107.95	107.95	N.A.	627	-42.99	-41.55	58.24	76.18	59.32	83.62	53.35*	..	30.27	83.62
3 Travancore Plywood Industries	48.58	48.58	447	466	+2.11	-10.94	110.43	130.55	94.59	164.71	41.55	95.33	27.83	164.71
4 Kerala Electrical and Allied Engineering Company	98.52	95.82	461	436	-44.64	-23.38	123.14	146.35	143.65	126.40	96.08	29.19	1.13	126.40
5 Kerala Soaps and Oils	138.53	149.97	288	307	-4.96	-6.01	68.13	143.65	57.53	138.45	101.30	36.50	0.65	138.45
6 Kerala State Drugs and Pharmaceuticals	30.00	30.00	285	278	+3.06	+4.47	162.21	190.50	154.50	179.22	165.23	13.59	0.40	179.22
7 Kerala Premo Pipe Factory	18.00	19.50	311	326	-9.94	+5.83	59.19	66.48	42.91	60.90	38.90	22.00	..	60.90
8 Kerala Minerals and Metals Limited	83.55	165.05	433	430	+12.28	+30.77	56.83	28.92	45.20	70.96	27.05	42.10	1.81	70.96
9 Trivandrum Spinning Mills Limited	51.45	51.45	558	558	-29.10	-16.18	42.42	..	60.80	0.80	0.80	..	..	0.80
Total	631.58	726.02	3195	3802	-148.29	-75.39	780.38	910.80	774.65	981.75	680.95	238.71	62.09	981.75

* Inclusive of sales outside Kerala also.

APPENDIX 6.3

Government owned Companies—Production and Capacity Utilisation

Name of Company	Name of Product	Unit	Installed capacity	Production during		Capacity Utilisation in percentage		
				1975-76	1976-77	1975-76	1976-77	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1. Kerala Minerals and Metals Ltd.	Ilmenite	Tonnes	16000	21565	22603	134.8	141.3	
	Rutile	"	2200	1633	1954	74.2	88.8	
	Zircon	"	300	377	155	125.7	51.7	
	Monozite	"	240	90	43	37.5	17.9	
	Luecoxene	"	144	237	265	164.6	184.0	
	Sillimanite	"	1200	225	126	18.7	10.5	
2. Kerala Soaps and Oils Ltd.	Soaps	Tonnes	4300	504	2029	11.7	47.2	
	Shark liver oil products	"	300	53	57	17.7	19.0	
3. Kerala Ceramics Ltd.	Porcelain	Tonnes	595	602	531	101.2	89.2	
	China clay	"	5000	5939	4962	118.8	99.2	
	Spray dried Kaolin	"	18000	1559	3820	8.7	21.2	
4. Trivandrum Rubber Works	Cycle tyres	Nos.	1,500,000	288918	367260	19.3	24.5	
	Cycle rims	"	300,000	85816	27059	28.6	9.0	
	Rubber hoses	Metres	Nil	24765	22853	..	..
	Sheetings	Kgs.	Nil	300630	156123	..	..
	Camel Black	"	Nil	378243	659289	..	..
	Cycles	Nos.	Nil	372	606	..	..
5. Kerala State Drugs and Pharmaceuticals Ltd.	Tablets	Nos. lakhs	2514.00	1340.72	1481.69	53.3	58.9	
	Capsules	"	149.0	119.84	76.01	80.4	51.0	
	Liquids	Lakh litres	2.25	1.85	1.55	82.2	68.9	
	Injectible	1. Bottles	Nos. lakhs	4.50	2.63	2.81	58.4	62.44
		2. Vials	"	15.00	5.18	8.24	34.53	54.9
3. Ampoules		"	60.00	21.52	15.21	35.8	25.4	
6. Kerala Electrical and Allied Engineering Company	Distribution Transformers	KVA	120,000	63695	56685	53.1	47.2	
	Electric motors	Nos.	500	172	103	34.4	20.6	
	Meter components	"	252,000	2,84,035	79271	112.7	31.5	
	Electrical wiring accessories	"	133,000	24,353	14994	18.3	11.3	
	C.I. Specials and pipes	Tonnes	240	138	127	57.5	52.9	
	Contactors/starters	Nos.	12,000	3326	406	27.7	8.4	
	Steel structures	Tonnes	1200	707	746	58.9	62.2	
7. Kerala Premo Pipe Factory	Prestressed concrete pipes	Nos.	N.A.	2814	3522	..	..
	R.C.C. Pipes	"	"	6374	3716	..	..
	R.C.C. Collars	"	"	5437	3530	..	..
8. Travancore Plywood Industries	Plywood and allied articles	Lakh Sq. meters of 4 m.m. basis	22.8	10.72	11.52	47.0	50.5	

Appendix 6.4

Government Majority Companies—Main Features

Name of Company	(Rs. in lakhs)														
	Paid up capital in		Persons (Nos.) employed in		Net profit/loss during		Value of production in		Sales during			Sales in 1976-77 within			
	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	1976-77	Kerala	Outside Kerala	Outside India	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
1 Travancore Titanium Products*	99.24	159.75	1152	1250	+2.56	+98.83	594.54	927.52	595.16	951.17	32.27	879.84	39.06	951.17	
1 Traco Cable Company	114.92	114.92	215	234	+13.81	+33.64	168.63	384.00	210.75	383.00	203.00	180.00	..	383.00	
3 Travancore Cochin Chemicals	564.75	634.75	1069	1077	-134.18	-267.08	488.14	896.10	417.17	600.68	385.80	214.88	..	600.68	
4 Transformers and Electricals Kerala Limited	313.89	400.00	882	1077	+71.96	+67.40	737.00	864.07	756.52	728.00	58.00	670.00	..	728.00	
5 Pallathra Bricks and Tiles	17.56	18.56	103	117	-2.51	-1.42	7.86	14.11	6.59	14.06	14.06	..	..	14.06
6 Chalakudy Potteries	6.62	16.62	168	160	-4.29	-3.17	12.00	12.00	10.00	8.02	1.50	6.52	..	8.02	
7 United Electrical Industries †	43.90	54.90	494	498	-13.02	-20.84	107.33	133.45	103.62	130.00	129.00	..	1.00	130.00	
8 Forest Industries (Travancore)	17.71	17.71	163	158	+4.81	-3.08	32.09	43.82	58.63	40.51	38.61	..	1.90	40.51	
Total	1172.59	1417.21	4246	4571	-60.86	-95.72	2147.59	3275.07	2158.44	2855.44	862.24	1951.24	41.96	2855.44	

* Calendar year 1975 and 1976 respectively.

† Inclusive of sales outside Kerala.

APPENDIX 6.5

Production and Capacity Utilisation of Government Majority Companies

Name of Company	Name of Product	Unit	Installed capacity	Production during		Capacity Utilisation in percentage	
				1975-76	1976-77	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Travancore Titanium Products	Titanium dioxide	Tonnes	24500	5377	9717	21.94	39.66
2. Travancore Cochin Chemicals Ltd.	Caustic Soda	Tonnes	59400	21468	29394	36.14	49.48
	Hydrosulphate of soda	"	3000	387	498	12.90	16.60
	Sodium Sulphide	"	2100	695	911	33.09	43.38
	Chlorine	"	58080	18892	25867	32.53	44.53
3. Transforms and Electricals Kerala Limited	Power Transformers	MVA	2000	1359	1351	67.95	67.55
	Current and Potential Transformers	Nos	600	487	366	81.16	61.00
4. Pallathra Bricks and Tiles	Sand lime bricks	Lakh Nos.	120	50.41	94.08	42.00	78.40
5. Chalakudy Potteries Limited	Refractories	Tonnes	5000	2200	2113	44.00	42.46
6. Traco Cable Company	A.A.C. and A.C.S.R.	Tonnes	1500	577	1152	38.46	76.80
	P.V.C. Cables	Lakh crore metres	109.72	7.42	16.50	6.76	15.04
	Telephone Cables	Lakh K.M.	1000	543	1225	54.30	122.50
7. Forest Industries (Travancore)	Wooden doors, windows, furniture etc.	Lakh man hours	7.26	2.56	3.08	35.26	42.42
8. United Electrical Industries Limited	K.W.H. Meters	Nos.	200000	122620	121370	61.31	60.68
	Motor Control gears	"	11800	4469	4335	37.87	36.73
	L.T. Switch gear	"	500	81	132	13.50	22.00
	Magneto Generators	"	Not fixed	254	766	..	..
	11 K.V. Switch gear	"	"	11	31	..	..
	Plastic film capacitors	Million Nos.	10	7.10	26.63	71.00	266.30
	Electronic items	Nos.	Not fixed	878	484	..	..

ANNEXURE C-6

Consolidated Financial Statements - Main features

(Rs. in lakhs)

Name of Company	Paid up capital in		Persons (Nos.) employed in		Net Profit/loss during		Value of production in		Sales during			Sales in 1976-77 within		Total
	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	1975-76	1976-77	1976-77	Outside Kerala	Outside India	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1 Hindustan Insecticides Limited, Alwaye Unit	..	..	491	508	+80.91	+51.65	540.20	533.53	456.31	413.44	6.52	406.92	..	413.44
2 Modern Baberies Limited, Cochin Unit	..	..	124	149	+16.14	+29.90	161.16	140.58	161.14	164.15	164.15	..	..	164.15
3 Instrumentation Limited, Palghat Unit	..	..	..	173	..	+3.64	..	103.00	..	214.90	1.05	213.85	..	214.90
4 Hindustan Machine Tools, Kalamassery Unit	..	..	2437	2498	-57.51	-72.81	878.57	816.57	777.32	841.14	43.68	725.86	71.60	841.14
5 Fertilisers and Chemicals Travancore Limited	7386.19	7401.98	6444	6756	-1234.48	-1353.03	5760.65	5300.27	6528.17	6321.35	1723.83	4597.52	..	6321.35
6 Cochin Refineries Limited*	700.00	700.00	441	454	..	..	12698.19	14063.82	19047.50	21273.31	21273.31†	..	..	21273.31
7 Indian Rare Earths	..	..	451	470	..	..	756.60	924.60	590.80	928.00	330.60†	..	397.40	928.00
8 Cochin Shipyard	2250.00	2250.09	..	..	..	..	..	..	..	..	..	..	..	..
9 Hindustan Latex	130.00	130.00	..	..	..	25	194.66	224.69	224.46	211.24	211.24	..	..	211.24
Total	..	..	..	..	..	5.96	20990.03	22167.06	27785.79	30967.53	23754.98	5944.15	609.00	30967.53

* Year ending 31st August 1975 and 1976 resp

† Inclusive of Sales outside Kerala also.

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		
				1975-76	1976-77	1975-76	1976-77	
1. Hindustan Insecticides Ltd.	Technical D.D.T.	Tonnes	1344	1450	1373	107.89	102.16	
	Formulated D.D.T.	"	2688	2784	2695	103.57	100.26	
	Technical B.H.C.	"	3000	1752	1572	58.40	52.40	
	Formulated B.H.C.	"	3000	2570	3077	85.67	102.57	
2. The Fertilisers & Chemicals Travancore Ltd.	Ammonium Sulphate	Tonnes	198000	125819	115575	63.54	58.37	
	Ammonium Phosphate 16:20	"	132000	66866	65024	50.66	49.26	
	Ammonium Phosphate 20:20	"	49500	30194	32977	60.99	66.62	
	Ammonium Chloride	"	24750	7089	6050	28.64	24.44	
	Sulphur Phosphate	"	49500	15355	23327	31.00	47.13	
	Sulphur dioxide	"	8250	1060	905	12.85	10.97	
	Oleum	"	6600	2436	2353	46.90	35.65	
	Synthetic Cryolite	"	1650	N.A.	26	..	1.58	
Urea	"	330000	146646	165543	44.44	50.16		
3. Modern Bakeries (India) Ltd.	Modern Bread	Lakh Nos. of 400 gms.	123	134.36	137.83	109.24	112.06	
	Modern Bun	lakh Nos. of 50 gms.	47.66	..	38.14	..	80.03	
4. Cochin Refineries Ltd.	Liquid Petroleum Gas	M.T.	10,000	10020	12,350	100.20	123.50	
	Naphtha	"	2,67,000	187450	1,95,798	70.20	73.33	
	Motor Spirit-830n	"	1,84,000	131027	1,33,938	71.21	72.79	
	Superior Kerosene	"	7,35,000	275332	3,27,089	37.46	44.50	
	High Speed Diesel	}	"	7,07,000	799197	7,66,942	113.04	110.20
	Light Diesel Oil							
	Furance Oil	"	11,10,000	926331	7,54,337	83.45	67.96	
5. Hindustan Machine Tools Ltd.	Machine Tools and accessories	Nos.	1200	938	672	78.17	56.00	
	Printing machines and accessories	Nos.	80	71	55	88.75	68.75	
6. Hindustan Latex Ltd.	Contraceptive condoms	Million pieces.	288	125.04	149.69	43.42	51.98	
	Meteorological balloons	Nos.	not fixed	883	8873	..	..
7. Indian Rare Earths Ltd.	Ilmenite	M.T.	2,00,000	1,19,331		59.67	..	
	Monozite	"	600	50	Not available	8.93	..	
	Zircon	"	10,000	4,327		43.27	..	
	Rutile	"	9,000	3,783		42.03	..	
	Sillimanite	"	4,000	969		24.23	..	
	Ziropac A	"	..	283		..	..
	Zirflor	"	..	1,576		..	..

APPENDIX 6.8

Financial Highlights of the Kerala State Industrial Development Corporation

(Rs. in lakhs)

Item		1972-73	1973-74	1974-75	1975-76	1976-77
Resources	Share capital	415.00	464.00	464.00	464.00	464.00
	Reserves	33.00	41.87	58.96	69.47	82.26
	Borrowings	511.22	465.67	516.00	571.00	681.00
	Total	959.22	971.54	1038.96	1104.47	1227.26
Financial Assistance	Sanctioned during the year	201.25	188.14	271.27	223.73	171.60
	Gross sanctions (cumulative)	1685.34	1873.48	2144.75	2368.48	2540.08
	Assistance not availed of or cancelled (cumulative)	214.18	214.63	214.63	222.03	222.03
	Net sanction (cumulative)	1471.16	1658.85	1930.12	2146.45	2318.05
	Net assistance cleared (cumulative)	1399.12	1546.89	1752.66	1909.10	1991.11
Earnings	Gross income	40.07	52.53	73.65	67.75	78.80
	Net income	0.06	13.98	30.55	21.60	22.57

APPENDIX 6.9

Industry-wise Classification of Assistance Sanctioned (effective) by the Kerala State Industrial Development Corporation

(Rs. in lakhs)

SL No.	Type of Industry	Financial assistance sanctioned (cumulative)					Total
		Number of companies	Loan	Under writing	Direct subscription	Guarantee	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Cotton textiles	17	307.59	38.50	95.05	367.94	809.08
2	Steel	1	88.00	..	52.50	62.35	202.85
3	Iron and Steel Products	4	53.83	15.00	22.66	..	91.49
4	Non-ferrous metals and manufactures	2	58.0	34.00	..	..	92.00
5	Electrical industry	6	123.00	33.47	106.38	125.00	387.75
6	Electronic components and equipment	4	63.0	..	14.50	..	77.50
7	Industrial instruments including watches	4	40.40	5.00	19.36	4.00	68.76
8	Inorganic heavy chemicals	6	176.00	7.00	65.42	3.00	251.42
9	Miscellaneous chemicals	1	..	7.00	..	..	7.00
10	Drugs and Pharmaceuticals	1	30.00	..	..	..	30.00
11	Fermentation industries	1	..	..	1.25	..	1.25
12	Vegetable oils	1	5.00	..	6.50	..	11.50
13	Rubber goods	3 *	5.50	9.00	1.55	20.39	36.44
14	Leather and leather products	1	60.00	..	17.60	..	77.60
15	Glue and gelatine	1	..	..	36.40	..	36.40
16	Glass	1	27.00	..	23.06	..	50.06
17	Fibre glass boats	1	22.50	..	..	..	22.50
18	Ceramics	2	4.75	7.35	..	..	12.10
19	Timber and timber products	1	19.00	..	6.50	..	25.50
20	Others	4	25.00	..	1.85	..	26.85
Total		62	1108.57	156.22	470.58	582.68	2318.05

*Of these, one unit has been wound up.

APPENDIX 6.10

Workers in Handloom Industry—Household Units and other Establishments

Name of District	No. of workers in household units				No. of workers in other establishments							Total			
	Winders	Warpers	Weavers	Others	Total	Winders	Warpers	Weavers	Others	Total	Winders	Warpers	Weavers	Others	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Trivandrum	6717	476	14664	178	22034	561	130	1280	80	2051	7278	606	15943	258	24085
Quilon	2046	85	2475	7	4613	658	51	922	92	1723	2704	136	3397	99	6396
Alleppey	233	10	368	1	612	177	6	110	17	310	410	16	478	18	922
Kottayam	255	86	645	17	1003	20	..	51	9	80	275	86	696	26	1083
Idukki	3	..	1	..	4	8	14	27	49	98	11	14	28	19	102
Ernakulam	1299	90	1950	..	3339	273	23	514	18	828	1572	113	2454	18	4167
Trichur	952	12	1739	19	2722	54	3	80	5	142	1006	15	1813	24	2864
Palghat	3391	566	4475	394	8816	29	8	88	13	138	3410	574	4563	407	8954
Malappuram	959	29	1220	47	2255	52	4	109	9	174	1011	33	1329	56	2429
Kozhikode	6165	439	10571	80	17255	900	175	2273	529	3877	7065	614	12844	609	21132
Cannanore	7926	443	17849	114	26332	3927	960	14728	1111	20746	11853	1423	32577	1225	47078
Total	29936	2236	55956	857	88985	6659	1394	20182	1932	30167	36595	3630	76126	2789	119152

APPENDIX 6.11
District-wise Details of Pit-Looms (1976)

Name of District	Number of Looms															
	Co-operative Sector							Private Sector							Total	
	Working (2)	Idle (3)	Damaged (4)	Repairable (5)	Total (6)	Working (7)	Idle (8)	Damaged (9)	Repairable (10)	Total (11)	Working (12)	Idle (13)	Damaged (14)	Repairable (15)	Total (16)	
Trivandrum	2016	249	191	448	2898	5157	482	430	1062	7131	7131	621	725	1510	10029	
Quilon	363	86	9	80	538	150	42	1	34	227	227	10	128	114	765	
Alleppey	..	..	..	..	..	8	2	..	..	10	10	..	2	..	10
Kottayam	3	3	..	3	9	18	21	..	10	49	49	..	24	13	58	
Idukki	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ernakulam	124	27	2	17	170	64	28	2	9	103	188	4	55	26	273	
Trichur	471	20	3	74	568	581	112	5	81	779	1052	8	192	155	1347	
Palghat	2518	423	28	264	3233	557	191	..	150	898	3075	28	614	414	4131	
Malappuram	208	3	..	..	211	440	72	..	2	514	648	..	75	2	725
Kozhikode	200	31	4	3	238	145	66	10	15	236	345	14	97	18	474	
Cannanore	20	3	..	1	24	31	7	..	..	38	51	..	10	1	62
Total	5923	839	237	890	7889	7151	1023	448	1363	9985	13074	685	1862	2253	17874	

APPENDIX 6.12
District-wise Details of Frame Looms (1976)

Name of District	Number of looms															
	Co-operative Sector							Private Sector							Total	
	Working (2)	Idle (3)	Damaged (4)	Repairable (5)	Total (6)	Working (7)	Idle (8)	Damaged (9)	Repairable (10)	Total (11)	Working (12)	Idle (13)	Damaged (14)	Repairable (15)	Total (16)	
Trivandrum	1857	252	29	199	2337	5753	691	17	407	6868	7610	943	46	606	9206	
Quilon	2121	265	33	174	2593	585	100	15	105	805	2706	365	48	279	3398	
Alleppey	265	85	..	62	412	178	105	8	119	410	443	190	8	181	822	
Kottayam	398	127	6	95	626	126	38	5	39	208	524	165	11	134	834	
Idukki	..	..	..	..	..	25	3	..	..	28	25	3	..	..	28
Ernakulam	1587	108	4	29	1728	456	167	..	3	626	2043	275	4	32	2354	
Trichur	382	23	3	16	424	127	31	..	11	169	509	54	3	27	593	
Palghat	102	40	..	33	175	22	11	..	15	48	124	51	..	48	223	
Malappuram	162	23	..	..	185	550	32	4	2	558	712	55	4	2	773
Kozhikode	2396	217	10	12	2635	9873	1032	37	267	11209	12269	1249	47	279	13844	
Cannanore	3354	133	10	47	3544	29228	6092	113	1105	36539	32582	6225	123	1152	40082	
Total	12624	1273	95	667	14659	46923	8802	199	2073	57497	59547	9575	294	2740	72156	

APPENDIX 6.13

Total number of Mini Industrial Estate Units commissioned as on 31-3-1977

Sl. No.	Districts	Number of Estates set up			Number of units Commissioned		
		First three series	Co-operative series	Total	First three series	Co-operative series	Total
1	Trivandrum	4	6	10	31	Nil	31
2	Quilon	3	5	8	26	17	43
3	Alleppey	3	6	9	21	3	24
4	Kottayam	3	8	11	20	1	21
5	Idukki	3	4	7	15	12	27
6	Ernakulam	5	10	15	18	9	27
7	Trichur	3	5	8	25	3	28
8	Palghat	3	6	9	20	2	22
9	Malappuram	3	6	9	24	Nil	24
10	Kozhikode	3	8	11	24	4	28
11	Cannanore	3	6	9	26	Nil	26
Total		36	70	106	250	51	301

APPENDIX 6.14

Summary of Applications Received/Sanctioned/Disbursed etc. upto the year ending 31st March 1977 by the Kerala Financial Corporation

(Rs. in lakhs)

Sl. No.	Particulars	During the year						Since inception of the Corporation					
		Small industries		Others		Total		Small Industries		Others		Total	
		No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Applications received	947	816.19	22	204.95	969	1021.14	3479	5492.09	261	2019.64	3740	7511.73
2	Applications sanctioned	405	535.62	21	169.33	426	704.95	2226	3370.92	222	1566.56	2448	4937.48
3	Applications rejected/ withdrawn	93	368.96	2	20.41	95	389.37	395	1389.48	29	319.57	424	1709.05
4	Applications cancelled or reduced	31	42.46	1	10.38	32	52.84	96	166.50	20	141.40	116	307.90
5	Applications sanctioned (effective)	374	493.16	20	158.95	394	652.11	2130	3204.42	202	1425.16	2332	4629.58
6	Amount disbursed	284	369.83	18	167.47	302	537.30	1589	1754.10	171	1033.65	1760	2687.75
7	Applications pending	858	731.69	10	133.51	868	865.20	858	731.69	10	133.51	868	865.20

APPENDIX 6.15

Industry-wise Classification of Loans sanctioned and Disbursed by the Kerala Financial Corporation as on 1976-77

(Rs. in lakhs)

Sl. No.	Type of Industry	Amount sanctioned	Percentage of total loan sanctioned	Amount disbursed	Percentage of total loan disbursed
(1)	(2)	(3)	(4)	(5)	(6)
1	Stone quarrying clay and sand pits	34.76	0.75	15.90	0.57
2	Food Manufacturing Industries	801.47	17.31	438.17	15.72
3	Beverage Industries	18.88	0.41	16.88	0.61
4	Manufacturing Textiles	423.76	9.15	366.40	13.14
5	Manufacturing of Footwear and other wearing apparels	41.23	0.89	7.53	0.27
6	Manufacturing of wood, cork except furniture	129.52	2.72	93.79	3.36
7	Manufacturing furniture and fixtures	102.28	2.21	55.40	1.99
8	Manufacturing paper products	81.64	1.76	24.95	0.89
9	Printing, Publishing and allied industries	184.73	3.99	101.93	3.66
10	Manufacture of Rubber Products	328.72	7.10	191.50	6.87
11	Manufacturing of chemical and chemical products	369.34	7.98	183.07	6.57
12	Manufacturing of Non-metallic Minerals Product	124.73	2.69	72.62	2.60
13	Basic Metal Industries	131.17	2.83	31.21	2.91
14	Manufacturing Metallic Products	103.03	2.23	65.18	2.34
15	Manufacturing of Machinery except electrical machinery	223.98	4.84	122.30	4.39
16	Manufacturing of electrical machinery	287.06	6.20	183.01	6.56
17	Manufacturing of Transport Equipment	61.24	1.32	36.11	1.30
18	Motion Picture Production	79.14	1.71	45.88	1.65
19	Hotels	332.25	7.18	181.21	6.50
20	Transport	400.10	8.64	294.03	10.55
21	Miscellaneous Industries	340.27	7.44	180.53	6.47
22	Manufacturing of Leather goods	0.18			
23	Industrial Estate	30.00	0.65	30.00	1.08
Total		4629.59	100.00	2787.75	100.00

APPENDIX 6.16

District-wise Sanction and Disbursement of Loans and Advances by the Kerala Financial Corporation as on 31-3-1977

(Rs. in lakhs)

Districts	Effective sanction						Disbursement						
	Small Industries		Others		Total		Small Industries		Others		Total		
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
Backward Region													
1	Trivandrum	321	336.66	26	185.08	347	521.74	263	235.79	24	137.85	287	373.64
2	Alleppey	196	399.62	24	142.88	220	542.50	134	170.73	21	132.67	155	303.40
3	Trichur	213	350.58	21	155.77	234	506.35	153	199.97	17	85.93	170	285.90
4	Malappuram	150	226.96	3	34.50	153	261.46	113	120.80	3	33.40	116	154.20
5	Cannanore	126	206.19	10	88.83	136	295.02	74	79.55	10	56.28	84	135.83
Sub Total		1006	1520.01	84	607.06	1090	2127.07	737	806.84	75	446.13	812	1252.97
Progressive Region													
1	Quilon	346	370.39	23	134.04	369	504.43	273	210.69	17	95.27	290	305.96
2	Kottayam	125	202.97	27	164.54	152	367.51	92	121.02	24	137.42	116	258.44
3	Idukki	16	10.55	3	13.16	19	23.71	10	8.01	..	..	10	8.01
4	Ernakulam	371	780.00	47	353.31	418	1133.31	294	437.69	40	240.13	334	677.82
5	Palghat	49	74.89	3	52.45	52	127.34	25	27.22	2	27.00	27	54.22
6	Calicut	213	242.48	15	100.60	228	343.08	154	139.57	13	87.70	167	227.27
7	Mahe and other areas	4	3.13	..	..	4	3.13	4	3.06	..	..	4	3.06
Sub Total		1124	1684.41	118	818.10	1242	2502.51	852	947.26	96	587.52	948	1534.78
Grand Total		2130	3204.42	202	1425.16	2332	4629.58	1589	1754.10	171	1033.65	1760	2787.75

APPENDIX 6.17

Progress of 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)
1970-71	1013.15	818.75	600.85	9.95	5.56
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	2212.81	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

APPENDIX 6.18

Khadi and Village Industries

Production, Sales, Employment and Wages during 1976-77

Sl. No.	Name of Industry	Production value in lakhs'	Sales value in lakhs	Employment			Total wages in lakhs Rs.
				Full time	Part time	Casual	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Khadi	(a) Units aided by the Board	24.59	27.46	4231	..	..	21.99
	(b) Direct Centres including Payyannur Khadi Centre	34.94	44.92	1990	..	..	9.77
	Total	59.53	72.38	6221	..	..	31.76
B. Village Industries							
1	Village oil	80.30	82.93	417	493	574	6.97
2	Village pottery	55.48	55.23	3294	420	..	34.89
3	Fibre including screw-pine	343.22	374.32	48671	997	..	269.16
4	Blacksmithy and Carpentry	11.27	10.13	106	27	..	2.06
5	Handmade paper	4.54	4.29	152	75	..	1.65
6	Gur Khandasari	76.42	93.79	1168	646	400	16.11
7	Palm Gur	54.53	55.34	275	14880	380	32.10
8	Bee keeping	44.33	44.33	150	6254	..	Self employed
9	Village leather	45.51	49.01	637	261	..	14.35
10	Lime	29.31	30.77	1089	407	..	16.10
11	N.E.O. and Soap	6.24	5.74	22	433	730	0.36
12	Cottage match	4.72	5.19	85	176	..	0.83
13	Cane and Bamboo	11.31	11.25	695	1443	..	6.06
14	Fruit processing	0.32	0.34	5	12	480	..
15	Processing of Cereals	8.13	8.83	267	600	2	1.76
16	Collection of forest plants for medicinal purpose	0.41	0.40	3	1925	475	0.13
Total		776.04	831.89	57036	29309	3041	402.53

APPENDIX 6.19

Value of Property (Gross Block) in different States as on
31st March 1976

(Rs. Crores)

Sl. No.	State	Value of property	Percentage
(1)	(2)	(3)	(4)
1.	Andhra Pradesh	310.9	3.4
2.	Assam	271.9	3.0
3.	Bihar	1882.8	20.7
4.	Delhi	274.9	3.0
5.	Gujarat	432.5	4.7
6.	Haryana	51.6	0.5
7.	Himachal Pradesh	4.2	0.1
8.	Karnataka	212.0	2.3
9.	Kerala	246.8	2.7
10.	Madhya Pradesh	1366.3	15.0
11.	Maharashtra	371.5	4.1
12.	Orissa	619.6	6.8
13.	Punjab	165.2	1.8
14.	Rajasthan	187.7	2.1
15.	Tamil Nadu	498.6	5.5
16.	Uttar Pradesh	305.6	3.3
17.	West Bengal	566.0	0.1

(1)	(2)	(3)	(4)
18.	Jammu & Kashmir	7.2	0.1
19.	Union Territory (excluding Delhi)	11.8	0.1
20.	Goa	2.9	0.1
21.	Unallocated and others*	1322.3	14.5
Total		9112.3	100.0

*Rs. 1322.3 crores being the value of the miscellaneous assets like exploration, equipments, storage installations etc. for which State-wise figures are not readily available and value of air crafts, ships, etc. not assigned to any particular State.

APPENDIX 7.1

Distribution of Public Works Department Roads—District-wise
as on 30-6-1977 (Kms.)

Sl. No.	District	State Highways	Main District Roads	Other District Roads	Village Roads	Total
1.	Trivandrum	116	213	1031	..	1360
2.	Quilon	269	644	1371	..	2284
3.	Alleppey	186	208	698	..	1092
4.	Kottayam	270	636	691	..	1597
5.	Idukki	329	381	473	..	1183
6.	Ernakulam	185	810	759	..	1754
7.	Trichur	186	435	604	71	1296
8.	Palghat	143	670	200	93	1106
9.	Malappuram	160	383	226	219	988
10.	Calicut	99	494	112	311	1016
11.	Cannanore	85	450	501	543	1579
Total		2028	5324	6666	1237	15255

APPENDIX 7.2

Number of Motor Vehicles having valid Registrations as on 31-3-1977 in Kerala State (District-wise)

Sl. No.	District	Goods Vehicles	Stage Carriages	Taxi cabs	Cars	Jeeps	Motor cycles	Autorick-shaws	Tractor trailers	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Trivandrum	2315	3862	1556	9486	1230	7250	328	22	582	26691
2	Quilon	1950	363	1512	4448	448	2190	75	86	103	11175
3	Alleppey	869	355	1063	3523	195	2500	200	28	204	8997
4	Kottayam	1185	399	1209	2288	40	1348	310	18	90	6897
5	Idukki	452	29	300	895	779	492	8	185	180	3820
6	Ernakulam	2829	647	1542	7355	480	6311	896	358	672	21088
7	Trichur	1531	786	1486	2964	211	3573	351	384	334	11689
8	Palghat	1022	350	1197	2503	280	2840	484	313	1378	10897
9	Malappuram	614	333	718	1278	140	618	66	21	343	4181
10	Kozhikode	2865	818	598	4614	2003	3626	711	139	607	15981
11	Cannanore	1533	709	1076	2521	502	1283	1063	168	199	9084
Total		17165	8651	12257	41875	6308	32031	4492	1722	4692	129199

APPENDIX 7.3

Kerala State Road Transport Corporation—Routes, Route Distance and Number of Passengers

Sl. No.	Transport District	No. of schedules as on		No. of Routes as on		Route Km. as on		Gross distance operated (in lakhs Km.) during		No. of passengers carried (lakhs)	
		31-3-1976	31-3-1977	31-3-1976	31-3-1977	31-3-1976	31-3-1977	1975-76	1976-77	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Trivandrum Central	282	295	404	466	18,268	20,518	283.12	323.43	779.53	663.81
2	Neyyattinkara	56	60	130	154	3,258	4,065	38.42	59.31	157.58	195.47
3	Trivandrum City	213	228	561	579	6,412	6,563	125.46	130.52	788.30	814.27
4	Quilon	111	122	114	132	6,089	7,335	135.23	124.30	437.93	340.38
5	Kayamkulam	68	80	88	105	3,744	4,264	51.29	80.02	164.28	260.62
6	Kottarakkara	119	146	213	202	8,319	12,579	112.93	147.26	355.12	423.16
7	Kottayam	272	297	403	501	19,518	24,914	265.77	293.06	737.87	730.92
8	Alleppey	112	112	107	66	3,658	4,749	109.99	112.96	389.67	353.30
9	Ernakulam	116	121	121	292	8,412	9,464	142.07	144.02	255.67	215.68
10	Alwaye	137	158	137	210	5,079	8,929	128.69	146.50	445.55	418.03
11	Trichur	199	235	178	178	13,810	16,454	215.95	256.90	451.13	445.65
12	Kozhikode	161	224	112	139	13,053	17,890	185.44	221.72	220.75	250.14
13	Workshops & Offices	..	..	..	..	..	..	4.54	..	..	..
	Total	1,846	2,078	2,568	3,024	1,09,570	1,37,724	1,798.90	2,039.99	5,183.97	5,111.43

APPENDIX 7.4

Tonnage of Principal Commodities of Imports into Cochin Port during the year 1976-77

(Tonnage)

Sl. No.	Commodities	Total		Grand Total
		Coastal	Foreign	
1.	Rice and paddy	..	2047	2047
2.	Other grains including pulses & flour	9774	147617	157391
3.	Coal	178715	..	178715
4.	Cashewnuts	7	51432	51439
5.	Machinery	305	5662	5967
6.	Iron and steel	180	8795	8975
7.	Tin plate	..	1062	1062
8.	Motor vehicles and parts	6	18	24
9.	Chemicals and chemical preparations	207	1296	1503
10.	Oilseeds including copra & groundnuts	249	..	249
11.	Drugs and medicines	2	8	10
12.	Paper, old newspaper & Stationery	312	14406	14718
13.	Cotton, raw and waste	181	14442	14623
14.	Oilman stores, provisions & spices	19	1504	1523
15.	Sulphur	..	155600	155600
16.	Rock phosphate	11679	136352	148031
17.	Fertilisers	..	30863	30863
18.	Liquid ammonia	..	11148	11148
19.	Salt	13436	..	13436
20.	Zinc concentrate	..	22601	22601
21.	Calcined bauxite	9918	..	9918
22.	Soda	5844	..	5844
23.	Candles, paraffin wax & tallow	..	..	..
24.	P. O. L.	1045	2694001	2695046
25.	Transshipment cargo	146	2930	3076
26.	Miscellaneous	2874	33449	36323
	Total	234399	3335293	3570192

APPENDIX 7.5

Tonnage of Principal Commodities of Exports from Cochin Port during the year 1976-77

(Tonnage)

Sl. No.	Commodities	Total		Grand Total
		Coastal	Foreign	
1.	Coir products	29	52404	52433
2.	Tea	6	52334	52360
3.	Rubber	6200	15685	21885
4.	Coffee	..	13449	13449
5.	Coconuts	13	..	13
6.	Copra	3847	..	3847
7.	Cashew Kernels	..	57474	57474
8.	Chemicals	2453	18698	21151
9.	Cotton, raw and waste	..	1934	1934
10.	Rice and other foodgrains	3957	..	3957
11.	Pepper	..	24098	24098
12.	Ginger	..	1816	1816
13.	Cardamom	..	356	356
14.	Turmeric	..	1746	1746
15.	Coconut oil	9	..	9
16.	Cashew shell liquid	454	3839	4293
17.	Lemongrass oil	..	208	208
18.	Timber	687	28935	29622
19.	Marine products	..	44692	44692
20.	Oil cakes	1	..	1
21.	Machinery	678	8085	8763
22.	Iron and steel	3576	2971	6547
23.	Mineral sand including granite	1876	5552	7428
24.	Cement	3950	4668	8618
25.	P. O. L.	742743	13320	756063
26.	Transshipment cargo	1961	1115	3076
27.	Miscellaneous	5876	65440	71316
	Total	778316	419109	1197425
	Bunkers	38271	28539	66810
	Total including bunkers	816587	447648	1264235

APPENDIX 7.6

Number and Tonnage of Steamers and Sailing Vessels which called at the Intermediate and Minor ports of Kerala during 1976-77

Sl.No.	Ports	Coastal/ Foreign	Steamers		Sailing Vessels		Total	
			No.	Tonnage	No.	Tonnage	No.	Tonnage
<i>Intermediate Ports</i>								
1.	Alleppey	C	1	9750	..	..	1	9750
2.	Calicut (including Beypore)	C	15	5468	673	70,994	688	76462
		F	8	35358	32	6,194	40	41552
3.	Neendakara	C	..	..	..	..	..	..
		F	12	49111	..	..	12	49111
<i>Minor Ports:</i>								
4.	Trivandrum	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
5.	Quilon	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
6.	Ponnani	C	..	..	17	3,367	17	3367
		F	..	..	..	..	..	..
7.	Badagara	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
9.	Azhikkal	C	..	..	208	20,646	208	20646
		F	..	..	..	..	..	..
10.	Tellichery	C	..	..	5	1,806	5	1805
		F	..	..	..	..	..	..
11.	Cannanore	C	..	..	2	190	2	190
		F	..	..	..	..	..	..
12.	Kasaragod	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
All		C	15	5,468	905	97,002	920	102470
		F	21	94,219	32	6,194	53	100413
Total for 1976-77			36	99,687	937	1,03,196	973	202883
Total for 1975-76			65	2,12,162	1309	90,601	1374	302763

C Coastal F Foreign

APPENDIX 7.7

Import and Export Tonnage of Cargo handle and Revenue collected at the Intermediate and Minor Ports of Kerala during 1976-77

Ports	Imports (Tonnes)			Exports (Tonnes)			Total (Tonnes)			Revenue (Rs.)	
	Coastal	Foreign	Total	Coastal	Foreign	Total	Coastal	Foreign	Total	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Alleppey	..	6,275	6,275	..	..	..	..	6,275	6,275	1,42,104	46,361
2. Calicut (including Beypore)	7,785	51,574	59,359	55,736	19,544	75,280	63,521	71,118	1,34,639	4,65,200	5,19,796
3. Trivandrum	..	..	..	..	..	..	..	..	..	10,004	6,99,000
4. Quilon	..	..	..	..	..	..	..	..	..	18,443	5,122
5. Neendakara	..	17,562	17,562	..	66,095	66,095	..	83,657	83,657	7,47,404	19,788
6. Ponnani	26	..	26	..	..	..	26	..	26	2,031	5,424
7. Badagara	..	..	..	..	..	..	..	..	..	1,856	1,008
8. Tellichery	..	..	..	1,181	..	1,181	1,181	..	1,181	4,321	98,206
9. Azhikkal	5,285	..	5,285	14,907	..	14,907	20,192	..	20,192	42,586	6,589
10. Cannanore	17	..	17	180	..	180	197	..	197	2,145	4,768
11. Kasaragode	..	..	..	..	..	..	..	..	..	1,613	1,788
12. Ashikode	..	..	..	..	..	..	..	..	..	..	16,816
Total	13,118	75,411	88,524	72,004	85,639	1,57,643	85,117	1,61,050	2,46,167	14,37,707	13,61,072

APPENDIX 7.8

Growth of Post Offices in Kerala State

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)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Head Offices	12	22	28	29	31	32	32
2.	Sub Post Offices	552	967	1204	1219	1233	1229	1238
3.	Branch Offices	2394	2732	2786	2774	2780	2836	2833
	Total	2898	3721	4018	4022	4044	4097	4103

APPENDIX 7.9

Area and Population served by each Post Office in the various Districts in Kerala State

Sl. No.	Name of District	Area served by each P.O. served by in sq. Kms.	Population served by each P.O.
1.	Trivandrum	6.72	6744
2.	Quilon	11.73	6124
3.	Alleppey	4.92	5550
4.	Kottayam	5.72	4008
5.	Idukki	26.92	4051
6.	Ernakulam	7.29	6637
7.	Trichur	6.78	4762
8.	Palghat	11.0	4213
9.	Malappuram	10.54	5381
10.	Kozhikode	8.86	5003
11.	Cannanore	11.69	4847
	Average	10.20	5210

APPENDIX 7.10

Statistics of Post Offices as on 1-4-1977 in Kerala State

Sl. No.	Name of Division	Number of Post Offices			Total
		Head Offices	Sub Offices	Branch Offices	
(1)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum	3	116	207	326
2.	Quilon	3	121	270	394
3.	Alleppey	2	67	97	166
4.	Thiruvalla	2	78	137	217
5.	Kottayam	3	125	256	384
6.	Idukki	1	50	198	189
7.	Ernakulam	1	63	56	120
8.	Alwaye	2	56	148	206
9.	Trichur	2	79	195	276
10.	Irinjalakuda	1	54	116	171
11.	Palghat	3	87	131	221
12.	Ottapalam	1	46	132	179
13.	Malappuram	2	80	263	345
14.	Calicut	3	99	319	421
15.	Cannanore	2	65	228	295
16.	Tellichery	1	52	140	193
	Total	32	1298	2833	4103

APPENDIX 9.1

Progress of Educational Institutions—High Schools

Year	Government Schools	Private Schools	Total
(1)	(2)	(3)	(4)
1961-62	276	653	929
1962-63	312	703	1015
1963-64	315	705	1020
1964-65	345	801	1146
1965-66	345	806	1151
1966-67	391	884	1275
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	596	952	1488
1975-76	566	955	1521
1976-77	590	1076	1666
1977-78	592	1088	1680

APPENDIX 9.2

Progress of Educational Institutions—Upper Primary Schools

Year	Government Schools	Private Schools	Total
(1)	(2)	(3)	(4)
1961-62	576	1409	1985
1962-63	711	1574	2285
1963-64	705	1580	2285
1964-65	758	1670	2428
1965-66	761	1686	2447
1966-67	778	1697	2475
1967-68	782	1697	2479
1968-69	797	1738	2535
1969-70	797	1735	2532
1970-71	809	1734	2543
1971-72	811	1740	2551
1972-73	811	1739	2550
1973-74	809	1739	2548
1974-75	857	1731	2588
1975-76	880	1726	2606
1976-77	883	1835	2718
1977-78*	883	1842	2725

* Provisional

APPENDIX 9.3

Progress of Educational Institutions—Lower Primary Schools

Year	Government Schools	Private Schools	Total
1961-62	2835	3910	6745
1962-63	2985	3919	6904
1963-64	2928	3991	6919
1964-65	2898	4032	6930
1965-66	2904	4050	6954
1966-67	2801	4072	6933
1967-68	2864	4076	6940
1968-69	2805	4112	6917
1969-70	2805	4123	6922
1970-71	2804	4091	6895
1971-72	2804	4091	6895
1972-73	2798	4089	6887
1973-74	2807	4097	6904
1974-75	2900	4075	6975
1975-76	2910	4065	6975
1976-77	2883	4109	6992
1977-78*	2886	4127	7013

*Provisional

APPENDIX 9.4

Standard-wise Strength of Students 1977-78 (6th Working Day)

Standard	Boys	Girls	Total
I	357416	336724	694140
II	356240	334105	690345
III	331567	305486	637053
IV	327196	301357	628553
V	313095	278599	591694
VI	310265	271699	581964
VII	306774	275069	581843
VIII	234628	206742	441370
IX	197366	178707	376073
X	141764	128959	270723
Total	2876311	2617447	5493758

APPENDIX 9.5

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	3041338	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	3552698	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

APPENDIX 9.6

*Distribution of Teachers (15th July 1976-77)

Section	1976-77		
	Government	Private	Total
High and Training	12967	23385	36352
U. P.	19457	32912	52369
L. P.	31342	44145	75487
Total	63766	100442	164208

* Provisional

APPENDIX 9.7

Progress of Expenditure on General School Education

Year	Rs. (Crores)	Index of Increase
(1)	(2)	(3)
1961-62 (Actuals)	16.83	100
1962-63	17.11	102
1963-64	18.46	110
1964-65	19.88	118
1965-66	25.23	150
1966-67	29.33	174
1967-68	36.66	218
1968-69	42.21	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 (R.E.)	118.21	702
1977-78 (B.E.)	124.76	741

APPENDIX 9.8

Cost per pupil in the different stages of School Education

Year	Primary stage	Secondary stage
(1)	(2)	(3)
	Rs.	Rs.
1965-66	49.30	90.87
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	176.29
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	371.00

APPENDIX 9.9

Number of Arts and Science Colleges and Training Colleges in Kerala
District-wise—1977-78

Sl. No.	District	No. of Arts and Science Colleges			No. of Training Colleges		
		Govern-ment	Private	Total	Govern-ment	Private	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Trivandrum	5	12	17	1	2	3
2	Quilon	..	13	13	..	2	2
3	Alleppey	..	14	14	..	3	3

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
4	Kottayam	1	16	17	..	4	4
5	Idukki	..	2	2	..	..	..
6	Ernakulam	2	15	17	..	2	2
7	Trichur	3	13	16	1	1	1
8	Palghat	3	5	8	..	1	1
9	Malappuram	2	4	6	..	..	..
10	Kozhikode	4	7	11	1	1	2
11	Cannanore	3	6	9	1	..	1
Total		29	107	130	4	15	19

APPENDIX 9.10

Number of Colleges in the Different Universities of Kerala—1976-77

	Kerala University			Cochin University			Calicut University			Total			
	Govt.	Private	Total	Govt.	Private	Total	Govt.	Private	Total	Govt.	Private	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Arts & 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	1	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	

APPENDIX 9.12

Number of Students in University Departments 1976-77

Sl. No.	Name of Department	Kerala University	Cochin University	Calicut University	Total
(1)	(2)	(3)	(4)	(5)	(6)
1	Department of Economics	68	..	..	68
2	" Politics	45	..	..	45
3	" Psychology	30	..	..	30
4	" Sociology	38	..	..	38
5	" Library	..	..	..	..
6	" Science	30	..	..	30
7	" English	47	..	52	99
8	" German	68	..	..	68
9	" Russian	109	..	36	145
10	" Malayalam	27	..	24	51
11	" Tamil	10	..	..	10
12	" Linguistics	36	..	..	36
13	" Mathematics	21	..	..	21
14	" Statistics	26	..	..	26
15	" Physics	..	24	18	42
16	" Chemistry	..	..	22	22
17	" Bio-chemistry	11	..	..	11
18	" Botany	20	..	15	35
19	" Zoology	..	..	18	18
20	" Geology	12	..	..	12
21	" Education	29	..	27	56
22	Others (specify)	..	..	..	..
23	" Marine Science	..	42	..	42
24	" Ship Technology	..	45	..	45
25	" Hindi	..	41	38	79
26	" Arabic	..	..	10	10
27	" History	..	..	30	30
28	" Commerce	..	..	48	48
29	" Electronics	..	5	..	5
30	" School of Management Studies	..	..	166	166
	" Law	..	..	30	30
Total		627	353	338	1318

APPENDIX 9.11

Enrolment by Stages in Arts and Science Colleges in Kerala—1976-77

Stages	Enrolment
(1)	(2)
Pre-Degree	106425
Degree	63991
Post Graduate	6067 *
Total	176483

* Includes 1318 post graduate students in the University Teaching Department.

APPENDIX 9.13

Number of Students in Professional Colleges Under the Different Universities of Kerala—1976-77

Type of Colleges	Number of Students			
	Kerala University	Cochin University	Calicut University	Total
(1)	(2)	(3)	(4)	(5)
Training Colleges	1450	..	555	2005
Engineering Colleges	2177	773	1429	4379
Medical Colleges	2299	..	1244	3543
Ayurveda Colleges	404	..	178	582
Law Colleges	1904	..	268	2172
Total	8234	773	3674	12681

APPENDIX 9.14

Number of Teachers in the Different Colleges in Kerala 1976-77

Type of Colleges	Number of Teachers			
	Kerala University	Cochin University	Calicut University	Total
(1)	(2)	(3)	(4)	(5)
Arts and Science Colleges	5362	..	2680	8042
Training Colleges	114	..	52	166
Engineering Colleges	330	105	170	605
Medical Colleges	612	..	238	850
Ayurveda Colleges	53	..	14	67
Law Colleges	39	..	17	56
Total	6510	105	3171	9786

APPENDIX 9.15

Polytechnics in Kerala—1977-78

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 Kozhikode	2	..	2
11 Cannanore	1	1	2
Kerala	12	6	18

APPENDIX 9.16

Number of Industrial Training Institute in Kerala—1977-78

Name of 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 9.17

Percapita Government expenditure on Education in Kerala

Year	Population (Lakhs)	Government Expenditure on Education (Rs. in lakhs)	Expenditure per head (Rs.)
(1)	(2)	(3)	(4)
1961-62	173.02	1854.84	10.72
1962-63	177.02	1914.14	10.81
1963-64	181.26	2019.46	11.14
1964-65	185.52	2307.80	12.44
1965-66	189.88	2337.43	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	30.90
1972-73	223.92	7104.72	31.73
1973-74	228.18	8234.58	36.07
1974-75	232.45	10317.00	44.38
1975-76	234.80	12897.00	54.93
1976-77 (R.E.)	239.50	14379.00	60.04
1977-78 (B.E.)	243.90	15194.00	62.90

Appendix 9.18

Medical Institution and Beds in Kerala as on 31-3-1977

District	Hospitals		P.H. Centre and Medical College Units		Dispensaries		M.C.H. Centres		T.B. Centres		Grant in aid Institutions		Others		Total			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.	Started under special employ- ment pro- gramme	Half a million	Others Beds	No.	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.	Institu- tions No.	Beds No.
Trivandrum	19	4580	18	188	21	5	22	116	1	20	1	28	2	430	..	..	89	5962
Quilon	12	1435	20	206	22	9	24	120	..	..	4	86	1	120	..	..	92	1967
Alleppey	12	2885	20	215	16	9	23	81	..	..	2	12	4	575	..	..	86	3768
Kottayam	13	2043	15	138	12	6	13	111	..	..	2	48	..	..	..	..	61	2340
Idukki	4	194	4	40	12	6	17	85	..	..	..	..	..	..	..	..	43	319
Ernakulam	20	2154	17	190	14	6	27	166	..	..	4	40	1	201	..	..	89	2751
Trichur	18	2846	18	188	17	9	20	81	..	..	1	..	1	170	2	..	86	3258
Palghat	10	918	11	129	16	9	24	155	..	..	1	52	..	..	1	..	72	1254
Malappuram	8	624	12	96	17	13	16	50	..	..	2	52	..	..	1	..	69	822
Kozhikode	10	3194	15	90	20	9	18	132	..	..	1	..	..	..	..	..	73	3416
Cannanore	13	1960	13	177	34	24	41	186	..	..	2	..	..	..	1	..	128	2323
Kerala	199	22833	163	1657	201	105	245	1283	1	20	20	318	9	1496	5	..	888	27607

APPENDIX 9.19

Number of Medical Institutions and Beds under Allopathic system of Medicine in Kerala—District-wise

District	Number of Institutions		Number of Beds	
	1975-76	1976-77	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)
1 Trivandrum	89	89	5334	5362
2 Quilon	92	92	1881	1967
3 Alleppey	83	86	3579	3768

(1)	(2)	(3)	(4)	(5)
4 Kottayam	61	61	2490	2340
5 Idukki	41	43	261	319
6 Ernakulam	89	89	2661	2751
7 Trichur	87	86	3692	3285
8 Palghat	72	72	1242	1254
9 Malappuram	69	69	796	822
10 Kozhikode	74	73	3416	3416
11 Cannanore	128	128	2216	2323
Kerala	885	888	27568	27607

APPENDIX 9.20

Achievements under Family Planning Programme for the year 1975-76 & 1976-77

Sl. No.	District	1975-76				1976-77			
		Vas.	P.P.S.	I.U.D.	Induced abortion	Vas.	P.P.S.	I.U.D.	Induced abortion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(10)
1.	Trivandrum	6257	15352	2551	8126	11459	19415	1212	8443
2.	Quilon	9046	7329	3810	1562	12602	12114	2438	1765
3.	Alleppey	12435	4878	5253	1167	17340	6065	3766	2027
4.	Kottayam	7047	5638	2885	1864	12004	6844	1744	3244
5.	Idukki	5402	2534	999	336	3906	2835	687	351
6.	Ernakulam	7388	6647	3381	2739	13475	8732	2613	2795
7.	Trichur	11481	6283	2609	1123	12096	7895	1199	2282
8.	Palghat	3964	1620	1883	575	10197	2901	1519	523
9.	Malappuram	5273	1656	2022	270	9311	2772	970	464
10.	Kozhikode	13840	6733	1164	1681	13627	9380	519	3059
11.	Cannanore	12137	3682	1745	526	13812	5613	1184	496
	KERALA	94270	62352	28302	19969	129829	84566	17851	25989

APPENDIX 9.21

District-wise Distribution of Institutions and Beds Under Ayurvedic System of Medicine as on 31-3-1977.

Sl. No.	District	Hospitals		Dispensaries No.	Total No. of Institutions
		No. of Hospitals	No. of Beds		
1	Trivandrum	8	390	35	43
2	Quilon	5	80	35	40
3	Alleppey	7	96	40	47
4	Kottayam	6	86	19	25
5	Idukki	1	20	15	16
6	Ernakulam	9	174	29	38
7	Trichur	11	174	54	65
8	Palghat	3	80	36	39
9	Malappuram	6	96	35	41
10	Kozhikode	5	60	34	39
11	Cannanore	6	106	58	64
	Total	67	1362	390	457

APPENDIX 9.22

District-wise Distribution of Institutions and Beds under Homoeopathic system of Medicine as on 31-3-1977.

District	Hospitals		Dispensaries 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	25	9	10
Cannanore	1	25	14	15
Total	9	275	113	122

APPENDIX 9.23

District-wise Progress of works under Urban Water Supply Schemes for the year 1976-77

District	No. of schemes in operation at the end of 1975-76	No. of schemes completed during 1976-77	No. of schemes under construction at the end of 1976-77	No. of Towns having protected water supply at the end of 1975-76	No. of Towns having protected water supply at the end of 1976-77
(1)	(2)	(3)	(4)	(5)	(6)
1. Trivandrum	3	..	1*	3	3
2. Quilon	1	..	1	1	2
3. Alleppey	3	2	..	3	5
4. Kottayam	2	1	1	2	3
5. Idukki	..	..	..	..	..
6. Ernakulam	5	..	1	5	5
7. Trichur	4	..	1+1*	4	4
8. Palghat	1	..	1+1*	1	1
9. Malappuram	1	..	1	1	1
10. Kozhikode	2	..	..	2	2
11. Cannanore	3	..	..	3	3
Total	25	3	9	25	29

*Augmentation Schemes

APPENDIX 9.24

District-wise Progress of works under Rural Water Supply Scheme for the year 1976-77

District	Number of schemes in operation at end of 1975-76	Number of schemes completed during 1976-77	Number of schemes under construction at the end of 1976-77	Coverage area %
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	54	4	9	23.60
2. Quilon	41	4	18	16.40
3. Alleppey	56	2	33	15.60
4. Kottayam	84	3	15	18.90
5. Idukki	16	..	4	1.00
6. Ernakulam	53	1	18	16.00
7. Trichur	58	1	27	16.00
8. Palghat	65	1	18	22.00
9. Malappuram	28	1	10	8.50
10. Kozhikode	49	5	7	13.15
11. Cannanore	75	8	13	15.40
Total	579	30	172	15.00

APPENDIX . 9.25.

- Water Supply Schemes taken up with Life Insurance Corporation Funds

District	Schemes in operation at the end of 75-76		Schemes completed during 1976-77		Schemes under construction at the end of 1976-77		Expenditure during 1976-77 (Rs. in lakhs)	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Trivandrum	3	21	..	3	1	..	71.20	2.54
2. Quilon	..	10	..	..	1	7	10.47	9.04
3. Alleppey	2	16	3	..	..	4	63.67	5.63
4. Kottayam	1	26	1	1	1	4	45.16	7.54
5. Idukki	..	3	..	..	..	..	..	0.03
6. Ernakulam	5	17	..	..	1	..	100.39	4.05
7. Trichur	3	20	..	..	2	2	32.87	0.95
8. Palghat	..	15	..	..	2	4	7.22	0.77
9. Malappuram	1	17	..	..	1	4	16.58	5.22
10. Kozhikode	2	11	..	..	..	1	61.95	0.23
11. Cannanore	3	30	..	2	..	1	25.88	1.27
Total	20	186	4	6	9	27	435.39	37.27