

GOVERNMENT OF KERALA

ECONOMIC REVIEW

1988

STATE PLANNING BOARD

TRIVANDRUM

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CONTENTS

		<i>Pages</i>
Chapter 1	General Review	1—7
	The National Scene	1
	Developments in Kerala Economy	3
Chapter 2	Income and Employment	8—11
	National Income and State Income	8
	Employment Situation	11
Chapter 3	Prices, Cost of Living and Wages	12—20
	Prices	12
	Public Distribution System	15
	Wages	18
Chapter 4	Agriculture	21—41
	Agricultural Production	21
	Agricultural Credit	25
	Production Programmes	26
	Agricultural Marketing	28
	Live Stock	29
	Fisheries	30
	Forests	32
	Agricultural Research and Education	34
Chapter 5	Irrigation and Power	42—44
	Irrigation	42
	Power	43
Chapter 6	Industry	45—59
	Working Factories and Employment	45
	Industrial Promotional Agencies	46
	Government Owned Companies	48
	Government Majority Companies	49
	Small Scale Industries	49
	Khadi and Village Industries	51
	Traditional Industries	51
	State Public Sector Industries	55
	Central Public Sector Investment	56
	Mining	58

		<i>Pages</i>
Chapter 7	Transport and Communications	60—69
	Roads	61
	Road Transport	62
	Railways	64
	Air Transport	65
	Water Transport	65
	Ports and Harbours	67
	Communications	68
	Tourism	68
Chapter 8	Export Import Trade	70—78
	India's Foreign Trade	70
	Trade Through Cochin Port	70
Chapter 9	Social Services	78—92
	Education	78
	Health	82
	Medical Education	85
	Indian Systems of Medicine	86
	Family Welfare	86
	Housing	88
	Sewerage and Water Supply	89
	Urban Development	91
	Labour and Labour Welfare	91
Chapter 10	Special Programme for Weaker Sections	93—100
	Integrated Rural Development Programme	93
	Training of Rural Youth for self Employment	93
	National Rural Employment Programme	93
	Rural Landless Employment Guarantee Programme	94
	Small and Marginal Farmer's Development Programme	95
	Land to the Landless	95
	Development Programme of Panchayats	96
	Social Security, Welfare and Nutrition	97
	Welfare of SC/ST	99
Chapter 11	Institutional Finance	101—102

GENERAL REVIEW

The National Scene

Although the year, 1988-89 witnessed a strong recovery in agricultural production and maintained industrial growth, employment and balance of payments position were such as to give cause for concern.

From the negative growth rate in the agricultural sector during the preceding two years, when severe drought conditions prevailed, agricultural production improved substantially in major parts of the country. The industrial sector also maintained its growth in 1988-89. As a result it is estimated that gross domestic product will grow at 9 per cent in 1988-89 compared to 3.6 per cent in 1987-88 and 3.8 per cent in 1986-87.

Agricultural production in 1988-89 is to increase substantially, by around 17 to 20 per cent this year, while food grains production is expected to exceed the target of 166 million tonnes as against the output of 138.4 million tonnes in the previous year. The sharp recovery in the agricultural production is primarily attributed to good rains this year. Out of the 35 meteorological sub divisions, as many as 32 divisions received excess or normal rainfall during this year, compared to 1987-88, when as many as 21 out of 35 rainfall sub divisions received deficient or scanty rainfall. The higher agricultural production is also partly attributed to the package of measures introduced last year through the special programme for food grain production in 169 districts spread over 14 States. The districts reportedly were selected as being the most promising for yielding quick results.

During 1987-88 industrial production grew at about 7.5 per cent. The data available up to November 1988 indicates a growth rate of 9.3 per cent over the corresponding period last year. The manufacturing sector which accounts for about four-fifth of the industrial production, has grown at an even higher rate, of about 10 per cent. High growth in industrial sector during the current year has also been supported by the good performance of key infrastructure sectors such as coal, steel, cement, fertilizers, railway and power generation.

Because of the failure of monsoons in 1987-88 hydel generation in that year declined by 12.1 per cent from the previous year's level. The overall generation of power in 1987-88 was 201.9 million kwh against the target of 205 million kwh. Total generation of power in the current year, from April to December 1988 was 161.8 billion kwh, compared to 149.1 billion kwh in the corresponding period of last year. This represents a growth of 8.5 per cent.

Despite positive development on the industrial front, the virtual stagnation of employment growth in the organised sector and the increasing incidence of

industrial sickness are factors that continue to cause concern. The total number of sick industrial units increased from 24,550 to 147,740 between December 1980 and December 1986, and to 159,938 in June 1987. Out of the 1,59,938 sick units, the SSI units accounted for 158,226 with outstanding bank credit of Rs. 1542 crores. The total bank credit outstanding against all the sick units amounts to Rs. 5738 crores.

In the current year, the employment situation has remained more or less stagnant. The number of job seekers on the live registers of employment exchanges was 300.02 lakhs at the end of September 1988, showing a decline of only 2.6 per cent over the same month last year. Monthly average vacancies notified during April to September, 1988 were 48,400 as compared to 52,100 during the corresponding period last year, thereby showing a fall of about 7 per cent. Also average monthly placements during April to September 1988 were slightly lower at 28,500 compared to 28,600 during the same period of 1987.

The pressure on price situation is expected to be much less than that in 1987-88. The Wholesale Price Index (WPI) annual inflation rate has come down from over 10 per cent at the end of March 1988 to less than 5 per cent in January 1989 on a point to point basis. The inflation rate in terms of consumer price index had come down from around 10 per cent at the end of March 1988 to around 8 per cent by September 1988. The consumer price index however, rose sharply in October and November 1988.

External payments situation has continued to be under pressure. During the first six months of the financial year, April to September 1988, while exports grew by 21.3 per cent over the corresponding period last year, the growth in imports was even higher at 26.6 per cent during the same period. During 1987-88 the increase in imports was only 10.9 per cent and in exports 26.4 per cent. The trade deficit which averaged 3.4 per cent of GDP during the 6th Plan period increased to 3.7 per cent of GDP in 1985-86, but declined in 1986-87 to 3.2 per cent of GDP. Though full balance of payment data are not available, the trade deficit in 1987-88 as percentage of GDP is likely to be higher than in 1986-87. According to the provisional data available for the period April to December 1988, the trade deficit in the current year might be higher by 34.4 per cent than the deficit last year.

Thus while in overall terms the current year witnessed a strong improvement of the production sectors of the economy the fact that the country's balance of payments is likely to be under pressure and employment in the organised sector has remained virtually stagnant it will have to be taken serious note of.

Selected indicators relating to the growth of the national economy since 1950-51 are given in table: 1.1

TABLE 1.1
Selected Indicators: 1950-51 to 1987-88

Items	1950-51	1960-61	1970-71	1980-81	1985-86	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. National Income							
(i) At current prices ^a (Rs. crs.)	9,177	14,071	36,736	1,22,226	2,06,419	2,29,010	2,57,813
(ii) At 1970-71 prices ^a (Rs. crores)	17,536	25,534	36,736	1,22,226	1,40,647	1,45,675	1,50,573
2. Per capita net national product:							
(i) At current prices (Rs.)	245.5	305.6	632.8	1557.3	2734.0*	2974+	3284-
(ii) At 1970-71 prices	466	559	633	1,627	1,863	1,892	1,918
3. Gross domestic capital formation (As per cent of GDP) ^a	10.0	16.9	17.8	22.7	23.4	23.4	22.1
4. Gross domestic savings (As per cent of GDP) ^a	10.2	13.7	16.8	21.2	21.0	21.6	20.2
5. Output of major Commodities							
(a) Foodgrains (Million tonnes)	50.8	82.0	108.4	129.6	150.4	143.4	138.4
(b) Finished steel (Million tonnes)	1.04	2.39	4.64	6.82	9.49	9.70	10.65
(c) Cement (Million tonnes)	2.7	8.0	14.3	18.6	32.0	34.8	37.3
(d) Coal (including lignite) (million tonnes)	32.8	55.7	76.3	119.0	162.3	175.2	190.9
(e) Crude oil (Million tonnes)	0.26 ¹	0.45	6.8	10.5	30.2	30.5	30.4
6. Foreign Trade:							
(i) Exports (Rs. crores)	601	660	1,535	6,711	10,895	12,452 (PR)	15,741 (PR)
(ii) Imports (Rs. crores)	650	1,140	1,634	12,549	19,658	20,201 (PR)	22,399 (PR)
7. Wholesale price index (Base: 1970-71)	47.5	55.1	100.0	256.2	357.8	376.8	405.4
8. Consumer price index (Base: 1960)	83	102	186	401	620	674	736
9. Plan Outlay (Rs. crores)	2602	1,117	2,524	15,023	33,421	39,705	44,792

1. Figures from 1980-81 onwards are on the basis of New Series;^a 1980-81 prices, PR: Partially revised.—

Development in Kerala's Economy

Table 1.2 presents information on the selected economic indicators pertaining to the State.

TABLE 1.2

Important Indicators of State Economy

Item	1970-71	1980-81	1985-86	1986-87	1987-88
1. State Income (at current prices) Rs. crores.	1255	3655	5949	6755	7426
" (1980-81 prices) Rs. crores	1255*	3655	3958	3918	3963
2. Per capita Income (at current prices) Rs.	594	1444	2152	2397	2518
3. Output of Important Commodities					
(a) Rice - Lakh tonnes	12.98	12.72	11.73	11.34	10.33
(b) Coconut - Million nuts.	3981	3008	3149	3173	NA
(c) Arecanut - "	12738	10805	10664	53207	55384
(d) Pepper - 000 Tonnes	25.03	28.52	29.17	30.38	NA
(e) Rubber - "	78.73	140.33	184.70	202.13	NA
(f) Tea - "	41.45	50.72	53.10	50.34	NA
(g) Coffee - "	12.57	23.54	23.64	23.55	NA
4. Prices					
(a) Whole sale Price Index of Agricultural Commodities @ (Base 1952-53=100)	222	513	800	933	964
(b) Consumer price Index Number @ (Base 1970=100)	864.6	229	340	368	393
5. Plan Outlay (Rs. crores)	59.35	311.31	411.95	455.46	380.61 (RE)

State Income

The latest available data on State income pertain to 1987-88. The State income of Kerala for the year 1987-88 is estimated at Rs. 7426 crores against Rs. 6755 crores in 1986-87, at current prices. This represents a growth rate of 9.9 per cent. At constant prices (1980-81 new series), the State income is estimated at Rs. 3963 crores in 1987-88, as against Rs. 3918 crores in 1986-87, representing a growth rate of only 1.1 per cent. The State income has been growing at a slower rate compared to the growth in National Income. As a result the share of State income in the National Income in real terms has declined from 3.31 per cent in 1980-81 to 2.63 per cent in 1987-88. The per capita State income for 1987-88 is estimated at Rs. 1386 as compared to Rs. 1391 in the previous year, in real terms showing a decline of 0.36 per cent. While there was a growth rate of 3.4 per cent in National Income in real terms, in 1987-88 over the previous year, the State income grew only at 1.1 per cent during the same period.

The share of the secondary sector has declined from 22.1% in 1980-81 to 19.6% in 1987-88, in sharp contrast to the trend at the national level. The growing preponderance of the tertiary sector and the dwindling of the shares of the primary producing sectors in the current decade give rise to serious misgivings about the long term health of the economy of the State and call for urgent remedial measures.

*At 1970-71 prices

@Index Numbers relate to the Calendar years 1971, 1981, 1986, 1987&1988.

‡Base—1939=100

Employment Situation

Chronic unemployment and under employment, especially of the educated youth, is one of the most serious problems faced by the State. At the end of November 1988, there were 28.99 lakh job seekers on the live registers of the Employment Exchanges. The number at the beginning of the year was 29.91 lakhs. Thus Kerala accounts for about 10 per cent of the job seekers in the country, though its share of the country's population is only 3.7 per cent.

The total number of professional and technical job seekers has increased from 86958 in December 1987 to 87005 in November 1988. According to a survey conducted by the Department of Economics and Statistics in 1987, 27.81 lakh persons were chronically unemployed in the State, while those under employed were estimated at 15.28 lakhs.

The number of placements through the Employment Exchanges has been declining since 1980.

Of the total 10.97 lakh persons employed in the organised sector as on 31-3-1988, the public sector accounted for 5.86 lakhs and the private sector 5.11 lakhs.

Under the State's unemployment assistance scheme an amount of Rs. 63.60 crores has been disbursed to about 2.11 lakhs beneficiaries over a period of seven years ending 31-3-1988. Under the self employment scheme 1.12 lakh beneficiaries were assisted.

Price situation

The country-wide wholesale price index rose by 10.6 per cent on a point to point basis during 1987-88. The average index for agricultural commodities in Kerala increased from 933 in 1987 to 963.9 in 1988, representing an increase of only 3.3 per cent. The consumer price index rose from 368 in 1987 to 393 in 1988. This represents an increase of 6.8 per cent.

Agriculture

Indications with respect to the production performance of agricultural products in 1988-89 are that the crop sector is on the path of revival after having been hit by drought in the previous years.

Production performance of both food and non-food crops, on a cluster basis, presented a rather dismal picture during 1987-88 due to various reasons such as fall in area, decline in productivity etc. Production of rice during 1987-88 is estimated at 10.32 lakh tonnes, as compared to 11.33 lakh tonnes in 1986-87. This decrease was primarily due to fall in area under rice from 6.44 lakh ha. to 604 lakh ha. It is to be noted that the area under high yielding variety (HYV) plummeted from 2.20 lakh ha. in 1984-85 to 1.19 lakh ha. in 1987-88, the latter representing only 19.7 per cent of the total area under rice. Lack of adequate input support has been one of the major reasons for the decline in production of rice in general and shrinkage in the area under high yielding varieties in a particular in the State. In this context mention may be made of the complete exclusion of Kerala State from the Government of India's Special Foodgrains Production Programme covering 169 districts in 14 States. While production of Rubber in the State increased by over 7%, and of Cardamom by 13% that of Cashew nut declined by 19 per cent. Firm figures on production of some of the crops like Coconut, Pepper are not available.

The Krishi Bhavans set up in all the panchayats in 1987 for extension work were engaged in initiatives in the formulation of location specific schemes for implementation with institutional funding. Programmes involving a total outlay of Rs. 30 crores have been identified for implementation with credit support from financing agencies. A special vegetable production programme with popular participation in 5 lakh homesteads was implemented with extension support from Krishi Bhavans.

Livestock

More than 60 per cent of the breedable female cattle in the State are cross-breds. The total number of artificial inseminations carried out in 1987-88 was 13.93 lakhs as compared to 13.35 lakhs in the previous year.

Milk production in 1987-88 recorded an increase of 6.9% over the previous year, from 13.34 lakh tonnes to 14.26 lakh tonnes.

Fisheries

The fishermen population of the state is estimated at 9.11 lakhs of whom 77.5 per cent are engaged in the marine sector.

The total fish production, which showed signs improvements last year, declined again from 3.65 lakh tonnes in 1986 to 3.05 lakh tonnes in 1987. Out of this, the share of marine fish production was 91.31 per cent. Though there was a decline in the total fish catch, export of marine products from Kerala increased from 33906 tonnes in 1986-87 to 35576 tonnes in 1987-88. In value terms it amounted to Rs. 184 crores. The share of Kerala in the total fish production of the country declined rather steeply from 40% in the seventies to 18% in 1986.

The major thrust areas for development are (1) Integrated Fisheries Development Project phase I and II, with the assistance from NCDC implemented by Matsyafed and Fishermen's Co-operatives, and (2) Development of fishery in the brackish water areas. An area of 18,383 ha. of brackish water suitable for fish/prawn culture has been identified, after a detailed micro level survey for the purpose.

During 1987-88 the fishing harbour at Neendakara was completed.

Under the housing scheme for the fishermen, out of the 10000 houses targetted in the 3rd phase, construction of 5162 houses was completed by the end of December 1988.

Forestry

Total forest area in the State extends over 11.22 lakhs ha. This constitutes 28.9% of the total geographical area of the State. The reserve forest forms 81.54% of the total forest area. Under the programme for forests plantations, this area planted during 1987-88 was 1.55 lakh ha.

The World Bank aided Social Forestry Project is expected to be completed on schedule in 1989-90.

Under the Western Ghats Development Programme, the main thrust areas are soil conservation, minor irrigation, agriculture development, afforestation etc. The sericulture programme introduced in Pambar and Vattavada water sheds in Idukki District envisages the development of biovoltine sericulture.

Irrigation and Power

The total investment in major, medium and minor irrigation schemes till the end of 1987-88 adds upto Rs. 691.97 crores. The total area brought under irrigation is 361212 ha. (net) or 597531 ha. (gross). This constitute about 24% of the total estimated irrigable area in the state. The share of the major and medium irrigation schemes is 4.16 lakhs ha., achieved through the ten completed schemes and partial commissioning of some of the eighteen ongoing projects on which work has been going on for period ranging from 8 to 33 years.

Of the total area irrigated, the share of minor irrigation schemes comes to 1.82 lakh ha., and the investment on these schemes amount to Rs. 80 crores upto 1987-88. During the year, 40 MI class I works 63 MI class II P.W.D. works, 40 lift irrigation schemes and 33 IPD yelah works were completed.

Following acute drought conditions in 1987-88, there was drastic reduction in the water levels of the reservoirs and as a result, the internal power generation in that year was far below that of the previous years. During 1987-88 1009 MU of power was imported. Still the gap between demand and supply was too large that besides imposing power cut all the year round, load shedding was also resorted to. Per capita power consumption in the State declined from 130.5 kWh in 1986-87 to 125.5 kWh in 1987-78, as against all India average of about 180 kWh.

Considering the limited scope for expansion in hydel generation capacity, the Government have initiated steps for creating alternative sources. A thermal power project is proposed to be set up at Kayamkulam which will be executed by the National Thermal Power Corporation. Similarly efforts are on to set up gas/diesel based power project at Brahmapuram.

Industry

The severe setback in power supply during 1987-88 adversely affected the face of industrial production. The manufacturing sector registered an increase of only 1.4%, in real terms, in 1987-88. Still the performance was better than that in 1986-87 when it suffered a decline.

According to provisional figures the manufacturing sector recorded a growth rate of over 9 per cent in current prices. The total number of registered factories stood at 12,184 as on 31-12-1987 compared to 11,530 as at the end of December 1986. The number of workers employed in the factory sector increased from 292,852 to 299,637 during this period.

Cashew Industry alone provided employment to 107,197 workers during 1987-88 showing an increase of 5000 over the figures for 1986. The workers in the cashew industry constituted about 36 per cent of the total number of industrial workers in the State. Quilon District accounted for 83.5 per cent of the workers engaged in cashew industry. The other major employing industries included general engineering, cotton textiles, chemical and chemical products, rubber and rubber products and tiles.

The number of joint stock companies functioning in Kerala increased to 3336 by the end of March 1988, from 3062 companies at the end of March 1987. The number of companies newly registered during 1987-88 was 28. The total number of Government Companies increased from 95 in 1986-87 to 97 in 1987-88.

Out of the industrial promotional agencies in the State, Kerala State Industrial Enterprises Ltd., KSIDC and Kerala State Industrial Products Trading Corporation earned profits during 1987-88, while KELTRON and Kerala State Textile Corporation Ltd. incurred losses. Most of the State Public Sector undertakings continue to incur losses. The accumulated loss of 25 manufacturing companies alone stood at Rs. 227 crores whose paid up capital amounted to only Rs. 98.55 crores.

In the small scale sector, the number of units registered during 1987-88 was 6849 as against 4977 in 1986-87, an increase of 37.61 per cent during 1987-88. These units with an estimated investment of Rs. 94.49 crores provided employment to 38,245 persons. The total number of small scale units in the State stood at 47,191 as on 31-3-1988, with investment amounting to Rs. 651 crores. Employment provided by all these units taken together stood at 2.36 lakhs.

The Kerala Financial Corporation and the Small Industries Development Corporation (SIDCO) continued to play significant roles in the promotion of small scale industries. The functional responsibilities of SIDCO include supply of raw materials, creating infrastructural facilities, marketing assistance etc. The value of raw materials distributed amounted to Rs. 15.53 crores during 1987-88. The Kerala Financial Corporation (KFC) provides long term loans to small and medium scale industries. During 1987-88, the KFC disbursed Rs. 33.98 crores by way of loan as against Rs. 29.52 crores during the previous year. The aggregate amount of loan disbursed by KFC upto 31-3-1988 stood at 170.19 crores for 7969 beneficiaries.

The traditional industries such as Handloom, Cashew and Coir continue to face problems of intractable nature. The Coir industry has been hit by non-availability of raw husk at reasonable price, inadequacy of working capital, decline in export accumulation of unsold stock due to slump in the market etc. For collection of required quantity of husk, by the coir co-operative a single point levy system was being followed till last year. This was found wanting in achieving the objective. Hence a three point levy system for collection of husk was introduced from May 1988.

The Handloom industry had been facing problems, like accumulation of unsold stock, scarcity of yarn and other raw materials, and competition from the mill sector, inspite of the fact that various development programmes have been taken up at the National and State level to revive the industry. Production of handloom cloth in the co-operative sector increased to 53.25 million metres valued at Rs. 32.50 crores in 1987-88 as against 50.40 million metres valued at Rs. 31.49 crores in 1986-87.

The major problem facing cashew industry is the non-availability of raw materials resulting in very low capacity utilisation. On the export front also, cashew suffered some set backs in 1987-88. Export of cashew kernels during 1987-88 declined from Rs. 334.11 crores in 1986-87 to Rs. 322.71 crores in 1987-88. In order to assure the supply of raw cashewnuts the State Government introduced the system of monopoly procurement in the 1988 cashew season. This is to be continued during the 1989 cashew season as well. The Cashew Workers Apex Co-operative Society (CAPEX) had been entrusted with the task of procurement of raw cashewnut. During 1987-88, 42,256 M.Ts. of raw cashewnut, valued at Rs. 67.25 crores was imported as compared to 49,045 M.Ts valued at Rs. 69.46 crores in the previous year.

The Central sector investment in Kerala has been steadily declining over the years. The share of investment in Kerala came down from a level of

3.24 per cent in 1975 to 1.62 per cent in 1986; it declined further to 1.58 per cent in 1987. The Central investment in terms of gross block in Kerala stood at Rs. 1074 crores by the end of 1986-87.

Transport

Kerala has a fairly well developed transport and communication infrastructures of which road transport is the most important. The total road length during the year under review stood at 113,545 kms. out of which the length of surfaced roads is only 22,355 kms. About 75 per cent of the total road length comes under the Panchayats. As regards coverage the State has a road length of 292 kms. per hundred sq. km. of area and 446 kms. per lakh of population. The vehicle density in the State is of 1219 vehicles per hundred sq. kms. of area and 1861 vehicles per lakh of population. The total number of vehicles stood at 4.74 lakhs in 1987-88 as against 4.14 lakhs in the previous year, representing an increase of 14.5 per cent.

The Kerala State Road Transport Corporation (KSRTC), the only public sector agency for passenger transport accounts for 23 per cent of the total stage carriage in the State. The Corporation has been incurring substantial losses in past. Recently certain steps have been taken to reduce the operational loss, which included improved revenue collection, reduction in staff-bus ratio, phased replacement of overaged buses, enhanced fuel efficiency etc. As a result the financial position of KSRTC is expected to improve considerably.

Tourism

The Tourism Department and the Kerala Tourism Development Corporation (KTDC) are the two official agencies engaged in the development of Tourism within the State. The KTDC runs a chain of 13 hotels with capacity to accommodate about 700 persons per day. It is estimated that during 1987-88, nearly 61,000 domestic tourists and 13,000 foreign tourists visited the State.

In order to give Tourism the required thrust various steps are being taken by the Government. Tourism has been declared as an industry by the Government. This should enable the tourism industry to obtain the required support, financial and otherwise for its accelerated development. The Department has prepared a master plan for the period 1985-95.

Education

During 1987-88, there were 12133 schools comprising 6817 Lower Primary Schools, 2885 Upper Primary Schools and 2431 High Schools in the State. Enrolment in schools during 1987-88 increased from 25.86 lakhs to 26.37 lakhs in L.P. section, from 17.90 lakhs to 18.05 lakhs in UP section and from 13.40 lakhs to 13.41 lakhs in High School level. Thus the total enrolment has gone up from 57.17 lakhs in 1986-87 to 57.88 lakhs in 1987-88. Total number of teachers increased to 1.94 lakhs in 1987-88 from 1.92 lakhs in 1986-87. The teacher pupil ratio in 1987-88 was 1:31 as against 1:30 in 1986-87. During 1987-88 vocational courses were conducted in 73 schools for 3625 students.

As regards, higher education there were 172 Arts and Science colleges in the State in 1987-88. No new colleges were started during the year. Student strength increased from 3.13 lakhs during 1986-87 to 3.26 lakhs

during 1987-88. The strength of the teaching staff stood at 13570 during 1987-88 compared to 13374 in 1986-87.

The technical institutions in the state in 1987-88 comprised 7 Engineering Colleges 47 Technical High Schools, 25 Poly-technics and 19 Pre-Vocational Training Centres. Enrolment in Engineering Colleges increased from 9662 in 1986-87 to 10984 in 1987-88. In the case of Polytechnics enrolment went up to 14.527 during 1987-88 from 9768 during the previous year. No significant increase was there in the enrolment in technical high schools. The Cochin University was upgraded as a fullfledged Science and Technological University during 1986. The University offers coaching facilities in different courses in emerging areas on technology.

The total expenditure on education during 1987-88 amounted to Rs. 483.19 crores, of which 51.65 per cent was on account of primary education, 29.62 per cent secondary education and 13.68 per cent on university education. The per capita government expenditure on education increased from Rs. 174 in 1986-87 to Rs. 182 in 1987-88.

Health

The State has a fairly well developed health infrastructure. There were 1066 medical institutions in the state with 36668 beds in 1987-88. The health facilities consisted of 141 Hospitals, 577 Primary Health Centres, 188 Dispensaries, 20 TB Centres, 7 Leprosy Control units, 29 Community Health Centres, 79 Subsidiary Health Centres and 25 Grant-in-aid Institutions. According to provisional data available, the number of beds per lakh of population in 1987-88 was 127.

The life expectancy in Kerala has gone up from 52 years in 1981 to 68 years in 1986, as against the all India life expectancy of 56 years. The birth rate in the state came down from 22.9 per thousand in 1985 to 22.4 per thousand in 1986. The infant mortality rates has declined to 27 in 1986 from 33 in the previous year. The death rate per thousand population, as per provisional data was 6.7 in 1986 compared to 6.4 in 1985.

There were 101 Ayurveda Hospitals, 496 Ayurvedic Dispensaries and 228 grant-in-aid Vaidyasalas at the end of 1987-88. During the year under review, 3 dispensaries were upgraded as 10 bedded hospitals.

During 1987-88 the number of Homocopathic hospitals and dispensaries remained at 24 and 255 respectively as in the previous year.

Government expenditure on health has gone up from Rs. 113.76 crores in 1986-87 to 117.56 crores in 1987-88. The per capita expenditure on health increased from Rs. 50.13 in 1986-87 to Rs. 55.37 in 1987-88.

The Family Welfare Programme is rendered to the public through a net work of 164 Rural Family Welfare Centres and 74 Urban Centres including Post-partum Centres attached to the institution run by government, voluntary organisations and local bodies. Kerala's performance in the field of family welfare programmes

has been way ahead of other States. As at the end of 1986-87 a couple protection rate of 51 per cent was achieved by the State. Expenditure on Family Welfare Programme increased from Rs. 31.30 crores in 1986-87 to Rs. 42.14 crores in 1987-88.

Sewerage and Water Supply

Kerala could provide protected drinking water to 82 per cent of the urban population and 39 percent of the rural population. The number of towns having protected water supply increased to 35 per cent in 1987-88 as against 34 per cent in the previous year. There are 13 urban water supply schemes under implementation. Out of the total number of 1780 ongoing rural water supply schemes 89 schemes were completed during 1987-88.

Housing

About 22 agencies including Government Department and autonomous bodies are engaged in the implementation of housing programme in the state. Of these the major agency is the Kerala State Housing Board, which is implementing 11 housing schemes. During 1987-88, 766 houses were completed under the scheme co-operative housing schemes for economically weaker sections, 2477 houses under the subsidised self-help housing scheme stage II and 35,000 houses under rehabilitation housing scheme. Besides these, the State Development Corporation for SC/ST and the Co-operative Federation for Fisheries Development have also been promoting housing activities to help the economically weaker sections.

Nutrition

The ICDS programme operated through a net work of 9227 Anganwadies covered 7.75 lakh beneficiaries in 1987-88.

The Mid-day Meal Programme covered 32 lakh L.P. and U.P. Students, of whom 4.60 lakhs were SC/ST students. The total coverage of the programme was thus close to 80 per cent.

Plan Outlay

The plan outlay approved for 1988-89 is Rs. 500 crores. The financial constraints being faced by the State Government since 1987-88 have continued restraining the state in taking up and completing development programmes on schedule. As a result of the severe resource constraint, the target of the current year's plan outlay had to be reduced to Rs. 425 crores and project-wise reductions intimated to the Planning Commission within the stipulated time in order not to jeopardise plan assistance from the centre. Though the target has been reduced, it is hoped that the actual plan outlay would be higher.

For the next financial year, 1989-90 the plan outlay approved is R. 526 crores. For financing this plan outlay, the Central assistance allocated is Rs. 257.46 crores and the balance has to be mobilised by the State Government.

Institutional Finance

Deposits of the public sector banks after nationalisation, have increased from Rs. 3,897 crores in 1969 to Rs. 114,070 crores by the end of June 1988. For Kerala, the Credit-deposit ratio has been declining over the years from 65.8 per cent in 1969 to 62.1 per cent in 1988. Other States in the region have much higher credit-deposit ratios. As regards priority sector advances Kerala occupies 9th position among the States. Considering the industrial backwardness of Kerala and the chronic unemployment situation, the resources of the banking sector could be drawn in a large measure for a more rapid development of the state's economy

The total amount disbursed by the All India Financial Institutions to the 15 major states as at the end of March 1987 was Rs. 39059 crores. Of this, the share that accrued to Kerala was only 3.36 per cent compared to 8.2 per cent for Andhra Pradesh, 8.8 per cent for Tamil Nadu and 14.5 per cent for Maharashtra.

CHAPTER 2

Income and Employment

National Income and State Income

The national income at current prices in 1987-88 is estimated at Rs. 2,57,813 crores as against Rs. 2,29,010 crores in 1986-87, registering a growth rate of 12.6 per cent over the previous year. However at constant prices (1980-81 New Series) the national income has grown only by 3.4 per cent from Rs. 1,45,675 crores in 1986-87 to Rs. 1,50,573 crores in 1987-88. The growth of national income in real terms is marginally lower in 1987-88 compared to the corresponding growth rates realised in 1986-87 and 1985-86.

2.2 The year 1987-88 was marked by the worst drought in the post-independence period. Even though the agricultural production has declined by 2.8 per cent, the substantial growth in the industrial production and the services sector resulted in the positive growth rate of the economy in 1987-88.

2.3 During 1988-89, a high growth rate of over nine per cent is expected, after recovering quickly from the adverse effects of drought during the previous year as observed by the Pre-budget Economic Survey. Agricultural production is expected to increase over 17 per cent during the year, while production of food grains may exceed the target of 166 million tonnes. The industrial sector is also likely to register a growth rate of over nine per cent. However, the difficult balance of payment situation, mounting industrial sickness and unemployment and continuing strain on public finance would be the major challenges of economic management during 1988-89.

2.4 The State income of Kerala for the year 1987-88 is estimated at Rs. 7426 crores at current prices against Rs. 6755 crores in 1986-87, indicating a growth rate of 9.9 per cent. At constant prices (1980-81 New Series) the State income is estimated at Rs. 3963 crores in 1987-88 as against Rs. 3918 crores in 1986-87 representing a growth rate of only 1.1 per cent. The State income has been growing at a lower rate than that of the national income with the result that its share in the national income in real terms has declined from 3.31 per cent in 1980-81 to 2.63 per cent in 1987-88.

Per Capita Income

2.5 The per capita income for the national economy for 1987-88 in real terms is estimated at Rs. 1918, as against Rs. 1892 for 1986-87, showing a growth rate of 1.4 per cent. The per capita income at current prices is estimated at Rs. 3284 in 1987-88 showing an increase of 10.4 per cent over the 1986-87 level of Rs. 2974.

2.6 The estimated per capita State income at current prices has grown by 8.34 per cent to reach Rs. 2598 in 1987-88 as against Rs. 2397 in 1986-87. However, the per capita State income for 1987-88 in real terms is estimated at Rs. 1386, showing a decline of 0.36 per cent from the per capita State income of Rs. 1391 in the previous year. The relative performance of Kerala vis-a-vis other major States in terms of the growth of per capita income is given in Appendix 2.1.

TABLE 2.1
National Income and State Income

Item	Old Series					New Series			
	1970-71	1980-81	AAG	1980-81	1984-85	AAG	1985-86	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. National Income (Rs. Crores)									
At Current Prices	34235	105743	11.94	110484	184273	13.68	206419 (12.02)	229010 (10.9)	257813 (12.6)
At Constant Prices*	34235	47414	3.31	110484	133972	4.96	140647 (4.98)	145675 (3.61)	150573 (3.4)
2. State Income (Rs. Crores)									
At Current Prices	1255	3485	10.73	3655	5764	12.16	5949 (3.21)	6755 (13.55)	7426 (9.93)
At Constant Prices*	1255	1557	2.16	3655	3766	0.84	3858 (2.44)	3918 (1.56)	3963 (1.15)
3. Per capita National Income (Rs.)									
At Current Prices	633	1557	9.42	1627	2494	11.30	2734 (9.65)	2974 (8.8)	3284 (10.4)
At Constant Prices*	633	698	0.98	1627	1813	2.76	1863 (2.76)	1892 (1.6)	1918 (1.4)
4. Per capita State Income (Rs.)									
At Current Prices	594	1377	8.73	1444	2123	10.21	2152 (1.37)	2397 (11.38)	2598 (8.39)
At Constant Prices*	594	615	0.31	1444	1387	-0.92	1396 (0.64)	1391 (-0.36)	1386 (-0.36)

Note:—1. AAG—Average Annual Growth rate.

* 2. Base 1970-71 for old series and base 1980-81 for new series.

3. Figures in brackets show the percentage change over the previous year.

Source:—

1. Central Statistical Organisation.
2. Department of Economics and Statistics, Kerala.
3. Economic Survey 1988-89

Trends in Sectoral Share of Income

The trends in sectoral contribution of national income and State income at current and constant prices (1980-81 New series) are given in Appendix 2.2 to Appendix 2.4.

2.7 At constant price the percentage share of the primary sector in net domestic product has declined from 41.22 in 1980-81 to 33.67 in 1987-88. In Kerala also there has been a corresponding shift.

The share of the primary sector has fallen from 41.03 per cent in 1980-81 to 34.77 per cent in 1987-88 as shown in Table 2.2.

2.8 The contribution of the secondary sector to the net domestic product in India has increased from 23 per cent in 1980-81 to 27.3 per cent in 1987-88 at constant prices. The sub sectoral growth profile of others also indicates an improvement in performance, particularly in mining and electricity followed by manufacturing.

TABLE 2.2
Sectoral Contribution of Net Domestic Product: India and Kerala (per cent)

Sector	India					Kerala				
	At current prices			At constant prices		At current prices			At constant prices	
	1980-81	1986-87	1987-88	1986-87	1987-88	1980-81	1986-87	1987-88	1986-87	1987-88
1. Primary	41.22	35.68	34.58	35.48	33.67	41.03	37.30	36.88	36.39	34.77
2. Secondary	22.97	25.49	25.96	26.48	27.34	22.09	21.67	21.19	19.72	19.58
3. Transport, Communication and Trade	16.38	18.84	19.02	17.44	17.57	19.79	19.82	19.88	21.90	22.49
4. Finance and Real Estate	8.46	7.69	7.70	9.26	9.39	4.91	6.66	6.94	7.86	8.36
5. Community and Personal Services	10.97	12.30	12.74	11.67	12.03	12.18	14.55	15.11	14.13	14.81
6. Tertiary (3+4+5)	35.81	38.83	39.46	38.37	38.99	36.88	41.03	41.93	43.89	45.66
Total	100	100	100	100	100	100	100	100	100	100

2.9 In Kerala, however, the share of the secondary sector has declined from 22.1 per cent in 1980-81 to 19.6 per cent in 1987-88. There has been a pronounced and steady decrease in the contribution of electricity and construction sub sectors, and the growth in the share of manufacturing was only marginal.

2.10 The share of the tertiary sector has considerably increased both at the national and the State level. It has increased from 35.81 per cent to 38.99 per cent during the period 1980-81 to 1987-88 at the national level. In Kerala also there has been a significant increase in the sectoral share of the tertiary sector during this period which has increased from 36.9 per cent to 45.7 per cent. Marked increase has been observed in finance and real estate and also in transport and communications.

District Income

2.11 The estimates of district income at current and constant prices for 1980-81 to 1986-87 are given in Appendix 2.5. Ernakulam district has the highest share (14%) in the State income followed by Trivandrum (10%) and Kozhikode (9%) both in current and constant prices. Wayanad district has the lowest share only 2.6 per cent.

2.12 The performance of all the 14 Districts in terms of sectoral growth rates of income during 1986-87 is given in table 2.3.

TABLE 2.3
Growth rate of District Income during 1986-87 at 1980-81 Prices by Sector of Origin (per cent)

District/State	Sector			Net Domestic Product
	Primary	Secondary	Tertiary	
Trivandrum	8.4	-5.0	6.3	4.5
Quilon	-4.8	-6.4	5.3	-1.3
Pathanamthitta	-4.6	-6.0	5.2	-1.2
Alleppey	6.2	-5.8	4.8	2.8
Kottayam	-0.2	-6.6	5.1	1.3
Idukki	-4.1	-8.8	4.3	-3.6
Ernakulam	4.7	-7.3	5.6	1.3
Trichur	1.9	-6.1	4.7	1.4
Palghat	0.6	-4.5	4.7	1.3
Malappuram	2.9	-4.1	4.3	2.9
Kozhikode	18.8	-5.9	4.5	6.0
Wayanad	-3.5	-5.8	4.7	-2.1
Cannanore	0.2	-4.9	4.3	1.1
Kasargod	0.9	-4.9	4.2	1.2
State	2.0	-6.1	5.0	1.6

2.13 District income of Kozhikode has shown a remarkable growth of 6.0 per cent followed by Trivandrum (4.5%) and Malappuram (2.9%), against 1.6 per cent growth in the State income. During the year Quilon, Pathanamthitta, Idukki and Wayanad registered negative growth rates due to the decline in both primary and secondary sectoral incomes.

2.14 During 1986-87 the primary sector as a whole has grown by 2 per cent. The highest growth rate was recorded in Kozhikode (18.8%) followed by Trivandrum (8.4%) and Alleppey (6.2%). The secondary sector has declined sharply during the year in all the district. However the dominance of tertiary sector in State income is reflected in the positive growth rate of 4 per cent achieved during 1980-81 to 1985-86 and further to 5 per cent in 1986-87. The growth rate of tertiary sector in the districts ranged from 6.3 per cent in Trivandrum to 4.2 per cent in Kasargod.

2.15 At constant prices the share of the primary sector in the district income ranged from 57.8 per cent in Idukki district to 26.0 per cent in Ernakulam. In almost all the districts the percentage share of primary sector in district income has declined. The percentage share of secondary sector was highest in Ernakulam (28.9) and lowest in Malappuram (9.4). The share of the secondary sector has declined during 1980-81 to 1986-87 (at constant prices) in almost all the districts. The percentage share of the tertiary sector is the highest in Trivandrum (52.9) and lowest in Wayanad (23.2). Over the period 1980-81 to 1986-87 there has been a consistent increase in the share of the tertiary sector in all the districts.

2.16 The details of the relative performance of the districts in terms of per capita income at current and constant prices for 1980-81 to 1986-87 are given in Appendix 2.6. It is seen that Ernakulam and Idukki districts continue to maintain their first and second positions respectively. Malappuram district has the lowest per capita income both at current and constant prices during this period.

Employment Situation

2.17 Chronic unemployment and underemployment especially among the educated youth is one of the most serious problems faced by the State. The data on job seekers in the live registers of the Employment Exchanges are often taken as an indicator of the magnitude of the problem of unemployment. Kerala accounts for about 10 per cent of the total job seekers in the country even though its share of population is only about 3.7 per cent.

TABLE 2.4

Distribution of work seekers in Kerala and all India (In lakhs)

Year	Total work seekers		S.S.L.C. and above	
	Kerala	India	Kerala	India
(1)	(2)	(3)	(4)	(5)
1970	2.94	40.69	1.77	18.22
1975	6.91	93.26	3.58	48.05
1979	12.49	143.34	6.73	72.97
1980	15.79	153.17	8.13	81.63
1981	19.04	165.84	9.24	90.18
1982	20.86	197.53	10.36	97.68
1983	22.62	219.53	11.33	111.56
1984	24.58	235.47	12.63	125.36
1985	25.74	248.61	13.64	139.75
1986	27.04	301.31	15.06	164.52
1987	29.91	302.47	16.83	..
1988*	28.99	300.02**	17.15	..

*Up to 31st November, 1988.

**Up to the end of September 1988

Source: (1) Directorate of Employment.

(2) Economic Survey, Government of India.

2.18 The total number of registered work seekers has increased from 15.79 lakhs in 1980 to 27.04 lakhs in 1986. It further went upto 29.91 lakhs in 1987. According to the information available upto November end 1988, the number has declined to 28.99 lakhs (See table 2.4). Out of the total work seekers, 59.1 per cent have qualification S.S.L.C. and above as against 57.5 per cent in December 1987. In the category S.S.L.C. and above, Matriculates constitute about 83.8 per cent, those having Pre-degree certificates form about 9.3 per cent, and Graduates about 6 per cent followed by Post-Graduates about 0.9 per cent. The distribution of work seekers in Kerala by educational levels is given in Appendix 2.8.

Professional and Technical job seekers

2.19 The details of the professional and technical job seekers are given in Appendix 2.9. The total number of professional and technical job seekers has increased marginally from 86,958 in December 1987 to 87,005 in November 1988. There has been a fall in the number of Medical, Engineering and Veterinary Graduates and also Engineering Diploma holders in 1988 over the previous year. However, the number of Agricultural Graduates increased by almost 73 per cent followed by a marginal increase of 1.76 per cent in the case of I.T.I. Certificate holders during this period. The I. T. I. Certificate holders constitute about 73.75 per cent of the total, as on November 1988 followed by diploma holders in Engineering (19.25%), Engineering Graduates (5.17%), Medical Graduates (1.43%) and Agricultural and Veterinary Graduates about 0.4 per cent.

Placement through Employment Exchanges

The table 2.5 gives the number of placements made through the Employment Exchanges in Kerala.

TABLE 2.5

Number of placements through the Employment Exchanges in Kerala

Year	Number of placements	Monthly average No. of Employers using the Employment Exchanges
1970	17939	563
1975	23878	546
1980	39594	815
1985	13700	403
1986	15571	454
1987	13869	475
1988*	9018	464

*Up to 31st July, 1988.

Source: Directorate of Employment, Trivandrum.

2.20 Till the end of July 1988 about 9018 persons were provided placements through the Employment Exchanges. The monthly average of number of employers using the Exchanges has declined from 475 in 1987 to 464 in 1988 (upto July 1988).

2.21 The number of registered job seekers in the live registers of Employment Exchanges may not reflect the exact magnitude of the problem of unemployment. This is due to the non-inclusion of those job seekers who fail to get themselves registered, and the inclusion of some of the employed for want of better jobs and also those, like students, who may not be actually in the labour market.

2.22 A survey conducted by the Department of Economics and Statistics in 1987 has estimated the number of chronically unemployed persons at 27.81 lakhs. When the underemployed persons, estimated at 15.28 lakhs are also included, the total unemployment comes to over 43 lakhs. The survey has also estimated the number of employed persons at 64.44 lakhs. Thus, the size of the labour force is estimated at 107.53 lakhs. The activity status of the population is as follows.

TABLE 2.6

Activity Status-wise Distribution of Population (lakhs)

Activity Status	Rural	Urban	Total
1. Employed	56.25	8.19	64.44
2. Underemployed*	13.47	1.81	15.28
3. Unemployed	22.84	4.97	27.81
4. Total Labour Force	92.56	14.97	107.53
5. Not in the Labour force	148.83	21.22	170.05
Total Population	241.39	36.19	277.58

*Working for less than 183 days in a year.

Employment in the Organised Sector

2.23 The details of the employment in the public sector and in the organised private sector are given in Appendix 2.10. Of the total of 10.97 lakh persons employed in the organised sector as on 31-3-1988, the public sector accounted for about 5.86 lakhs and the private sector about 5.11 lakhs, the ratio being 53.42:46.58 respectively. The organised sector employment index for March 1988 (March 1979=100) stood at 111.4 and the indices for the public sector at 123.2 and for the private sector at 100.4. The indices show almost a virtual stagnation in the growth of employment opportunities especially in the organised private sector in Kerala.

Unemployment Assistance Scheme

2.24 The Government of Kerala have introduced in 1982, the Unemployment Assistance Scheme to provide temporary relief to the unemployed. Up to December 1988 an amount of Rs. 6359.81 lakhs was disbursed to about 2.11 lakhs beneficiaries under the Employment Assistance Schemes. The details are given in Appendix 2.11.

Migration of Workers Overseas

2.25. According to a survey conducted by the Department of Economics and Statistics, the number of workers from the State working abroad was 3,29,656, as at the beginning of 1987. Of these, as many as 3,00,929 were working in the Gulf countries. Other estimates place the number of workers from Kerala in the Gulf at over 500,000. Although there has been a decline in the employment opportunities abroad compared to the position in the early 80's, it would appear from the recent figures relating to emigration clearances for the country as a whole that there is some improvement.

2.26. The total number of return migrants was estimated at 86,475 until the end of February 1987. Over 70 per cent of the returnees had come back during the three years, 1984 to 1986, with the year 1986 accounting for 42.5 per cent.

2.27. Overseas Development and Employment Promotion Consultants Ltd., since its inception in 1977 could provide employment opportunities to 2066 persons up to 31st December 1988.

PRICES, COST OF LIVING AND WAGES

Wholesale Prices

The wholesale price index of most of the agricultural commodities of Kerala showed an increasing trend during the year 1988 as compared to the year 1987. The average index of wholesale prices for Agricultural commodities for 1988 was 963.9 points as compared to 933 points in 1987. As compared to the previous year, the price of food crops slightly decreased by 1.1%, during the year 1988. The average price index of rice increased from 529.1 in 1987 to 532.4 in 1988. But a month-wise analysis of change in price index of rice shows that index remained 529.1 upto the end of May and it rose to 535 in June and continued at that level upto

December 1988. Price index of condiments and spices registered the largest increase by 27.4%, its peak level increase was noticed in July 1988 and thereafter it declined. By the end of November 1988 it again reached below January level. Fruits and Vegetables recorded a steady decline, the average index declined from 1435 in 1987 to 1205 in 1988. It is interesting to note that unlike other products, the month-wise price index of plantation crop did not show much variation. Oil seeds also recorded an increase and it is seen as 8% compared to previous year. Summary position of the price index of agricultural commodities is given in Table 3.1. Month-wise index from 1/88 to 11/88 is given in Appendix 3.1.

TABLE 3.1

Wholesale Price Index of Agricultural Commodities 1987-88

(Base 1952-53=100)

Crops	Weight	Wholesale price Index			Percentage change over previous year	
		1986	1987	1988*	1987	1988
(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Food Crops	63.5	679.3	708.5	700.7	4.3	(-)-1.1
Rice	40.4	501.6	529.1	532.4	5.5	0.6
Condiments and spices	10.4	689.4	625.6	796.8	(-)-9.3	27.4
Fruits and Vegetables	10.7	1323.7	1435.3	1205.0	8.4	(-)-16.0
Molasses	2.0	758.3	858.2	890.9	13.2	3.8
B. Non Food Crops	36.5	1008.5	1323.5	1421.7	31.2	7.4
Oil Seeds	25.5	1227.0	1650.2	1787.1	34.5	8.3
Plantation Crops	11.0	508.8	568.4	577.3	11.7	1.6
C. All Crops	100	799.5	933.0	963.9	16.7	3.3

*Average upto 11/88.

Source: Directorate of Economics and Statistics.

Retail Price

3.2 Retail price of certain essential commodities showed a declining trend during the period under review. Both the retail price and wholesale price of rice showed a rising trend. A month-wise analysis showed a mixed trend throughout the year. Table 3.2 gives the prices of some selected items as at the end of December in 1987 and 1988 and the percentage variation over the one year period. Average price of rice showed an increase of 18.4% when compared to the previous year. Among pulses, prices of Greengram and Blackgram recorded considerable increase in prices, where as Dhall and Redgram declined. A slight increase in the price of

coconut oil was noticed during 1988. Price of Refined oil and Groundnut oil declined. But the price of chillies increased two fold during 1988, in percentage terms it represented an increase of 103. During the beginning of the year the price of chillies was Rs. 23.61/kg. and it went up to Rs. 46.11/kg. at the end of December 1988. Price of tapioca, an important food item in the consumption basket and the main substitute for rice among the poorer section remained more or less stable till middle of the year and it showed a declining trend towards the end. A marked decrease of 50% in the price of coriander was observed. The price of Banana and potato also showed a downward trend. As compared to the previous year the price of

TABLE 3.2
Average Retail Price of Essential Commodities

Commodity	Unit	Price at the end of December			Percentage of Variation	
		1986	1987	1988	1987 over 1986	1988 over 1987
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rice	Kg.	4.24	4.61	5.46	8.7	18.4
Greengram	"	6.28	7.15	9.76	13.9	36.5
Blackgram	"	6.68	7.41	11.75	10.9	58.6
Redgram	"	6.07	7.33	6.89	20.8	(-) 6.0
Dhall	"	9.37	14.34	12.57	53.0	(-) 12.3
Coconut Oil	"	31.01	33.58	35.28	8.3	5.1
Groundnut oil	"	23.90	27.66	24.75	15.7	(-) 10.5
Refined oil	"	37.13	43.05	39.67	15.9	(-) 7.9
Tapioca	"	1.55	1.53	1.45	(-) 1.3	(-) 5.2
Banana (green)	"	4.72	4.36	4.14	(-) 7.6	(-) 5.0
Milk-(cow)	Litre	4.46	4.88	4.93	9.4	1.0
Egg-(hen)	Doz.	8.17	8.76	8.10	7.2	(-) 7.5
Potato	Kg.	4.09	3.84	3.15	(-) 6.1	(-) 18.0
Corriander	"	19.83	19.86	9.53	0.2	(-) 52.0
Chillies (dry)	"	11.45	22.71	46.11	98.3	103.0
Onion	"	3.38	3.64	3.29	7.7	(-) 6.9
Sugar	"	6.18	6.71	6.44	8.6	(-) 4.0
Coconut (without husk)	100	284.00	311.79	324.86	9.8	4.2
Firewood (local split)	Qtl.	64.38	67.18	68.45	4.3	1.9
Washing soap (sunlight)	each	3.76	4.23	3.84	12.5	(-) 9.2
Electric Bulb (Osram 40 W)	"	4.89	5.05	5.58	3.3	10.5
Aluminium Cooking Pot	Kg.	48.22	53.93	..	11.8	..
Baby Food	"	44.19	49.14	56.41	11.2	14.8

Source: Directorate of Economics and Statistics.

sugar presented a declining trend during 1988. The price of cement showed a declining tendency from October onwards. Price of tea at the beginning of the year was Rs. 40.83/kg. was declined to Rs. 36.86/kg. at the end of the year. Month-wise average retail prices of essential commodities for the year 1988 are given in Appendix 3.2.

Consumer Prices

3.3 Consumer price, which can be taken as broad indicator of inflationary trend in the economy registered an upward trend during 1988. Even though retail price of certain essential commodities marked a slight decrease, the price of some others went up. Therefore as a result of this phenomenon the consumer price index showed an upward trend. A comparison of the indices of fifteen centres shows that the rate of variation in the cost of living index was the highest

in Ernakulam (8.47%) and lowest in Trivandrum (5.56%). In terms of the average index for the year 1988, Quilon ranked first (414), followed by Malappuram (407), and Mundakayam ranked the lowest (376). The index for Trivandrum was 399 compared to 378 in the previous year. At the same time variation in the indices during the 11 months of the year ranged from 11 to 26 points. The average monthly cost of living index of various centres which was 384 during January 1988 rose to 400 in December 1988. This reflected the inflationary trend prevailed in the economy during the period. It is interesting to note that the monthly index steadily increased month after month and reached the peak level of 403 in August, and thereafter slightly declined in October and stood at 400 in November. The monthly consumer price indices compiled for fifteen centres are given in Appendix 3.3 and average annual indices in Table 3.3.

TABLE 3.3

Annual average consumer price index number in selected centres of Kerala

(Base 1970 = 100)

Sl. No.	Centre	Average Annual Index number			Percentage Variation	
		1986	1987	1988	1987 over 1986	1988 over 1987
	(1)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum	350	378	399	8.00	5.56
2.	Quilon	355	390	414	9.86	6.15
3.	Punalur	334	358	382	7.19	6.70
4.	Alleppey	336	365	390	8.63	6.85
5.	Kottayam	347	371	392	6.92	5.66
6.	Mundakayam	321	352	376	9.66	6.82
7.	Munnar	337	358	379	6.23	5.87
8.	Ernakulam	325	354	384	8.92	8.47
9.	Chalakydy	345	373	400	8.12	7.24
10.	Trichur	342	364	391	6.43	7.42
11.	Palghat	328	360	386	9.76	7.22
12.	Malappuram	345	378	407	9.57	7.67
13.	Kozhikode	343	374	403	9.04	7.75
14.	Meppady	347	369	398	6.34	7.86
15.	Cannanore	341	373	401	9.38	7.51
	State average	340	368	393	8.24	6.79

Source: Directorate of Economics & Statistics.

Parity Index

3.4 Parity index provides a measurement of the relative gains and losses of the farmers as a result of price changes in the market. The parity index for 1988 (based on 11 months average) was 91 compared to 100 in the previous year. It shows a decrease of 9 points. The price paid by farmers rose to 74 points and price received by the farmers decreased by 19 points

compared to the previous year. This reveals that there has been an unfavourable parity index as a result of the higher cost incurred by farmers with a disproportionately lower price for their produce. The decrease in the receipt of farmers was due to a steep fall in the price of farm products such as pepper, cashew, coconut etc., and the downward trend in the price of Tapioca and banana.

TABLE 3.4

Index Number of prices received and prices paid by farmers

Year	Prices received by farmers	Farm cultivation cost	Domestic Expenditure	Prices paid by farmers	Parity as 2 to 5
(1)	(2)	(3)	(4)	(5)	(6)
1985	783	1167	688	896	88
1986	921	1299	745	904	93
1987	1063	1413	804	1066	100
1988*	1044	1516	857	1140	91

*Average upto 11.88

Source: Directorate of Economics and Statistics.

Farm Commodity Prices.

3.5 The average farm price of principal commodities was ruling high during 1988, when compared to 1987 except for Tapioca, Pepper, Cashewnut and Banana, where the prices have declined. The average farm price of paddy which was around Rs. 248.24 per quintal in 1987 increased by almost 11 percent and touched Rs. 275.50 in 1988. However the price of Tapioca, a major subsidiary food crop declined by 7.50 percent in 1988 over the previous year and the average Farm

Price was Rs. 97.43 per quintal. The prices of Coconut has registered an increase of 9.18 percent during 1988 to Rs. 282.90 per 100 nuts from Rs. 259.11 during 1987. Other major items which showed a rising trend in prices during the year under review are Ginger (14.09%), Sugarcane (28.59%) and Arecanut (22.07%). The average farm price of Pepper however declined by 32.42 percent. Followed by Cashewnut 19.83 percent and Banana by 10.94 percent during 1988 as against 1987. The principal reasons attributed to the decline in Pepper prices was the revival of world supply.

TABLE 3.5
Average Farm Price of Principal Crops

Sl. No.	Commodity	Unit	1984	1985	1986	1987	1988	Changes in Average Price between 1987 and 1988	
								Actual	Percent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Paddy	Quintal	230.78	225.18	242.25	248.24	275.50	(+)27.26	(+)10.98
2.	Tapioca	"	66.32	70.71	98.54	105.33	97.43	(-)7.90	(-)7.50
3.	Coconut	100 nos.	304.50	174.21	193.85	259.11	282.90	(+)23.79	(+)9.18
4.	Pepper	Quintal	2103.08	3606.06	4749.75	5262.07	3555.48	(-)1706.59	(-)32.43
5.	Ginger	"	2864.23	1498.78	857.56	1366.01	1558.59	(+)192.52	(+)14.09
6.	Cashewnut	"	834.44	793.82	1074.47	1364.35	1093.84	(-)270.51	(-)19.83
7.	Sugar	Tonne	164.48	199.15	244.51	235.15	302.39	(+)67.24	(+)28.59
8.	Arecanut	100 Nos.	13.59	10.35	12.04	10.93	12.61	(+)2.28	(+)22.07
9.	Banana	"	56.33	60.24	65.02	69.76	62.13	(-)7.63	(-)10.94

Source: Directorate of Economics and Statistics, Trivandrum.

The Public Distribution System

3.6 The Public Distribution System plays an important role in ensuring the supply of essential commodities at reasonable prices particularly to the weaker and vulnerable sections of the society. Kerala has a well knit and efficient system of public distribution covering all the households in the State.

3.7 The number of family ration cards in the State increased from 47.31 lakhs in 1987 to 48.07 lakhs in 1988. There were 12,828 retail outlets catering to the needs of a population of about 2.58 crores, as at the end of 1988. This works out to one retail outlet for every 20,00 population in the State.

3.8 Essential commodities like rice, wheat, sugar palm oil and kerosene are distributed through the Public Distribution System. Despite a reduction in the allotment of rice from the Central Pool by about one lakh MT. the distribution could be increased through an efficient supply management from 15.98 lakh tonnes in 1987 to 16.61 lakh tonnes in 1988 and that of wheat from 1.04 lakh tonnes to 1.53 lakh tonnes. Accordingly, the average monthly distribution of rice increased by 3.94 percent and that of wheat by 47 percent during 1988 over the previous year, as will be seen from table 3.6.

The Kerala State Civil Supplies Corporation

3.9 The Kerala State Civil Supplies Corporation ever since its inception in 1974, is engaged in the purchase, storage and distribution of essential commodities like rice, wheat, edible oil, sugar etc., at reasonable prices. The activities of the Corporation have helped in a great measure in controlling the price level of essential commodities, particularly during periods of scarcity and also during festival seasons when there is a spurt in demand. Organisation of festival markets has become an essential feature of its operation since 1980. The Corporation handled about 1.53 lakh tonnes of levy sugar valued at Rs. 7417 lakhs during 1987-88 besides about 5206 tonnes of free sale sugar. It also markets its own tea under the brand name 'Sabari' which has gained considerable customer acceptance. Since 1978, on an average, about 55,000 tonnes of both levy and free sale cement have also been sold by the Corporation. As a result of overall improvement in performance, the turnover of the Corporation has steadily increased from Rs. 5.75 crores in 1974-75 to Rs. 165.91 crores in 1986-87. During 1987-88 the turnover went upto an all time high of Rs. 219.94 crores, an increase of 32.5% over the previous year. The performance since 1974-75 is given in Appendix 3.9. The turnover in 1988-89 is expected to reach Rs. 302 crores.

TABLE 3.6

Distribution of Rice and Wheat through the Public Distribution System*

Month	Rice distributed (in tonnes)			Wheat distributed (in tonnes)		
	1986	1987	1988	1986	1987	1988
(1)	(2)	(3)	(4)	(5)	(5)	(7)
January	120163	113135	149659	8372	7702	9449
February	108808	116899	148929	6706	6996	9442
March	123349	148120	113566	6394	7380	10659
April	120503	113566	145816	5562	6260	10191
May	128386	124647	141692	6993	6091	11094
June	129456	138085	133541	8771	8373	14563
July	147088	158587	136561	10690	10533	16712
August	145580	172356	159455	10043	10294	15860
September	153149	143894	127303	8475	8243	13865
October	130111	108629	127304	8666	9566	15064
November	114861	128839	115006	8861	10459	13620
December	133529	131205	112951	8908	12311	12890
Total	1554983	1597962	1661064	98441	104208	153409
Average Monthly off-take	129582	133164	138422	8203	8684	12784

* Quantity actually drawn by ration card holders.

Source: Directorate of Civil Supplies.

TABLE 3.7

Public Distribution System of Essential Commodities in Kerala

Particulars	Unit	1986	1987	1988
(1)	(2)	(3)	(4)	(5)
1. No. of Ration Cards and Permits as on 1st April				
(a) Ration Cards for families	No.	4447714	4730975	4807111
(b) Ration Permits for Institutions	No.	7984	5961	6873
2. No. of FCI—Sub Depots (as on 1st April)	No.	22	22	15
3. No. of Wholesale Shops (as on 1st April)				
(a) Co-operatives	No.	46	43	48
(b) Others	No.	245	250	249
(c) Total Wholesale shops	No.	291	293	297
4. No. of Retail shops (as on 1st April)				
(a) Co-operatives	No.	1400	1302	1251
(b) Others	No.	11228	11481	11577
(c) Total Wholesale shops	No.	12628	12783	12828
5. Quality of coarse Cloth (Std. Sales allotted)		6713.75	2518.02	6381
6. Sugar (Allotted)	M.T.	134565	141351	141132
7. Palm Oil (Allotted)	M.T.	9500	51500	51850
8. Kerosene (Allotted)	K. Litre	237060	291017	308842

Source: Directorate of Civil Supplies.

TABLE 3.8
Essential Commodities Distributed by Civil Supplies Corporation

Sl. No.	Commodity	1986-87		1987-88	
		Qty.	Value	Qty.	Value
(1)	(2)	(3)	(4)	(5)	
1.	Levy Sugar	1565641	7362.60	1527390	7416.77
2.	Levy Sugar (Bags)	2162216	1293.77	1129338	651.32
3.	Fresh Cement (Bags)	106763	73.44	102953	58.76
4.	Kerosine Oil (Litres)	6536407	146.63	7675717	181.76
5.	Rice	517436 ✓	1655.47	512223 ✓	1788.21
6.	Maida	1149	3.05	1344	4.64
7.	Sooji	918	2.80	1204	4.46
8.	Free sale Sugar	93076	527.56	52061	311.02
9.	Palmolein oil (Loose)	135715	1972.39	589588	9020.71
10.	Palmolein oil 5 kg. Tins	329989 Nos. -	270.07 ✓	408339 Nos. -	349.49 ✓
11.	Palmolein oil 2 kg. Tins	9179 Nos.	2.30	413580 Nos.	197.66
12.	Coconut Oil (Loose)	78616 Nos.	1373.01	53 Nos. ✓	0.55
13.	Coconut Oil 750 ML. Bottles	3062 Nos.	0.50	15	0.41
14.	Sabari Tea (A)	1749	41.86	1779	44.16
15.	Sabari Spl.	2126	55.02	2979	80.78
16.	Sabari Plus	1589	44.68	2768	79.57
17.	Sabari Gold Cup	58	1.79	..	..
18.	Paper and Note Books	1241060 Nos.	31.26	845321 Nos.	22.38
19.	Petroleum Products	..	451.43	..	514.91
20.	Textiles	..	2.12	..	0.75
21.	Vegetables	..	14.29	..	30.04

Source: Kerala State Civil Supplies Corporation Ltd.

Availability of Food

3.10 During 1988, the total internal production of rice declined to 10.33 lakh tonnes from 11.34 lakh tonnes in 1987. The import of rice and wheat on state account has also declined during 1988. The import of rice has fallen to 15.50 lakh tonnes in 1988 from 16.60 lakh tonnes in 1987. There has also been a steep fall in the import of wheat which declined to 2.35 lakh tonnes in 1988 from 4.20 lakh tonnes in the previous year.

The per capita consumption of cereals (excluding supplies through the Civil Supplies Corporation and private traders) is estimated as 263 grams per day in 1988 against 264 grms in 1987. Eventhough there was a decline of 10 per cent in the per capita availability of rice from internal production it has been largely compensated by the increase in the distribution of rice and wheat through the public distribution system. The distribution of rice through the Civil Supplies Corporation in the first ten months of 1988-89 amounted to 49,445 MTs as compared to 28,480 MTs in 1987-88.

TABLE 3.9
Availability of Food in the State

Particulars	Unit	1985	1986	1987	1988
(1)	(2)	(3)	(4)	(5)	(6)
1. Production of Rice in the State	Lakh Tonnes	12.56	11.73	11.34	10.33
2. Availability of Rice for consumption from production within the State*	Lakh Tonnes	11.30	10.56	10.21	9.30
3. Import of Rice on State Account**	Lakh Tonnes	14.60	16.50	16.60	15.50
4. Import of Wheat on State Account	Lakh Tonnes	4.20	4.20	4.20	2.35
5. Production of Raw Tapioca	Lakh Tonnes	36.94	32.76	25.76	31.81

*10% of production is accounted by seed, feed and wastage and the rest alone is accounted for consumption.

**Firm data on the import of rice into the state by private trade is not available. Hence availability through this source is not reckoned

TABLE 3.10
Import of Foodgrains on State Account.

Month	(In '000 tonnes)			
	1987		1988	
	Rice	Wheat	Rice	Wheat
(1)	(2)	(3)	(4)	(5)
January	125	35	145	35
February	125	35	135	35
March	125	35	125	20
April	125	35	125	20
May	125	35	125	20
June	145	35	125	15
July	145	35	125	15
August	145	35	145	15
September	165	35	125	15
October	145	35	125	15
November	145	35	125	15
December	145	35	125	15
Total:	1660	420	1550	235

Source: Directorate of Civil Supplies

TABLE 3.11
Per capita Consumption of Cereals in Kerala

Particulars	(gms. per day)		
	1986	1987	1988
1. Rice from internal production in the State.	105	99	89
2. Rice distributed through public distribution system	154	155	159
3. Wheat distributed through public distribution system	10	10	15
5. Total cereals	269	264	263

Note: This does not include the availability of rice and wheat distributed through the Civil Supplies Corporation and its outlets and also through private trades. Present estimates differ from those given in the previous Review as in their computation actual off-take from the public distribution system instead of imports and projected population for corresponding years instead of 1981 population have been used.

Wages

3.11 As price and wages are closely related a rise in price especially essential commodities automatically leads to the demand for higher wages, both in organised and unorganised sectors. During the year 1987-88 the average daily wage rate of skilled and unskilled workers in the agricultural sector had increased by about 3 per cent and 7 per cent respectively. Wage rates for different categories of workers are given in

Tables 3.12 & 3.13. Wage rate for skilled workers increased by around 3 per cent while the same for unskilled workers in the construction sector increased by 9% and 10% in the case of male workers, 10%, and 12% in the case of female workers in rural and urban centres respectively. An interesting aspect is that the increase in wage rate for female worker was more than that of the male worker. A rural and urban classification of wage rates in the construction sector is given in Tables 3.14 & 3.15.

TABLE 3.12

Average daily wage rates of skilled workers in the Agricultural Sector

Year	Average daily wage rates		% of variation over the previous year	
	Carpenter	Mason	Carpenter	Mason
(1)	(2)	(3)	(4)	(5)
1980-81	19.82	19.78	..	..
1981-82	22.42	22.50	13.12	13.75
1982-83	23.40	23.52	4.37	4.53
1983-84	26.17	26.22	11.84	11.48
1984-85	38.74	38.69	48.03	47.56
1985-86	42.84	42.80	10.58	10.62
1986-87	45.93	45.93	7.21	7.31
1987-88	47.50	47.21	3.42	2.79

Source: Directorate of Economics and Statistics.

TABLE 3.13

Average Daily Wage Rate of Unskilled workers in the Agricultural Sector

Year	Average daily wage rates of Paddy field works		% variation over the previous year	
	Male	Female	Male	Female
(1)	(2)	(3)	(4)	(5)
1980-81	11.13	7.91	..	..
1981-82	12.74	8.83	14.47	11.63
1982-83	13.29	9.55	4.32	8.15
1983-84	15.86	11.02	19.34	15.39
1984-85	23.60	11.89	48.80	7.89
1985-86	26.08	15.10	10.57	27.00
1986-87	28.36	16.39	8.74	8.54
1987-88	30.36	17.68	7.05	7.87

Source: Directorate of Economics & Statistics.

TABLE 3.14

Average daily wages of skilled workers in the construction sector

Year	Daily wages of skilled workers			
	Carpenter		Mason	
	Rural	Urban	Rural	Urban
(1)	(2)	(3)	(4)	(5)
1980-81	18.66	19.33	18.75	19.36
1981-82	22.52	22.87	22.66	23.01
1982-83	27.99	30.68	28.13	30.80
1983-84	33.43	35.00	33.29	35.12
1984-85	36.71	39.97	36.65	38.03
1985-86	40.91	40.67	41.10	42.01
1986-87	43.90	45.39	44.24	45.91

Source: Directorate of Economics and Statistics

TABLE 3.15

Average daily wages of unskilled workers in the Construction sector

Year	Wages of Unskilled Workers			
	Men		Women	
	Rural	Urban	Rural	Urban
(1)	(2)	(3)	(4)	(5)
1980-81	12.30	13.07	9.62	10.22
1981-82	15.22	15.94	11.40	12.22
1982-83	17.85	19.09	13.53	14.44
1983-84	20.29	21.18	14.81	16.10
1984-85	21.90	22.80	16.37	17.38
1985-86	25.31	25.70	19.08	19.42
1986-87	27.66	28.42	21.05	21.93

Source: Directorate of Economics and Statistics.

CHAPTER 4 AGRICULTURE

The most significant feature of Kerala's agricultural scenario in 1988 has been the signs of recovery from the consistent drought of the past two to three years. The prospects in respect of the major crops of the State are reported to be bright despite the near total failure of the North East Monsoon 1988 except that our perennial crops which take some time to recover fully from the damage sustained during draught. These favourable and encouraging developments augured well for securing the whole-hearted cooperation of farmers in innovative programmes under the aegis of Krishi Bhavans.

Rainfall

4.2 By virtue of its strategic location the agro-climatic features of Kerala are generally favourable for intensive agriculture. Thanks to the South-West and North-East monsoons, Kerala could attain a high level of land use and cropping intensity. However the year to year performance of the sector is critically dependent on the quantum and spread of the two monsoons. Against the normal of 3000 m.m. rainfall per annum, the quantum received during 1987-88 was only 2254 m.m. It is the highest during the last three years from 1984-85 (See Tables 4.1 & 4.2). During 1987 the summer showers and south west monsoons were deficient by 49 and 31 per cent respectively. The severity of problems due to the recurrent droughts of the last few years were mitigated to a large extent by the excessive rainfall (+30%) received during the North East Monsoon season. The Summer showers and South West Monsoons during 1988, though deficient marginally by -8 and -1 per cent respectively, could invigorate the crop production sector to an appreciable extent. Consequently the State could venture for normal agricultural production programmes during the Khariff and Rabi seasons of 1988. Unfortunately the North East Monsoon of 1988 failed almost completely recording the largest percentage of departure from normal (-64) since 1981. It appears that the State is heading for a serious situation in the event of the total failure of summer showers of 1989. (Details of month-wise, Station-wise rainfall during 1987 are given in Appendix 4.1).

Land Use Pattern

4.3. Data on land use pattern in the State for the year 1987-88 are yet to be finalised. Latest estimates available for the year 1986-87 are presented in Table 4.3. comparing it with that of 1985-86. Though the cropping intensity has recorded a marginal decline from 131.59 to 130.07 per cent it is mainly because of the reduction in area sown more than once (-11989 ha.). On the other hand the net cropped area has increased by 15,751 ha. duly explained by the reduction in area under 2 categories namely, land put to non-agricultural uses (15584ha.) and fallow other than current fallow (311 ha). The cultivable wastes and current fallows together recorded an increase of more than 5000 ha. mainly because of the

severe drought conditions that prevailed during 1986-87. Though final estimates are not available, the land utilization pattern of 1987-88 is likely to be better in view of the relatively favourable climatic conditions prevailed.

Agricultural Production

4.4 The 'Sampling Design' of the Survey to estimate area and production of crops has been revised by the State Directorate of Economics and Statistics to bring out block level estimates. The estimates relating to major crops like coconut and pepper are yet to be finalised. The performance of the crop sector in general during 1987-88 presents a mixed trend. Areas under arecanut, cashew and cardamon has increased while area under annual and seasonal crops, particularly subsistence crops like rice and tapioca declined. The trend began in the mid-seventies due to diversion of land from subsistence food crops to more remunerative crops and it still continues. The biggest fall in area was in rice (-59721 ha) followed by tapioca (-13620 ha). Sugarcane (-1029 ha) ginger (-1181 ha) groundnut (-2960 ha), and sesamum (-1150ha) also recorded negative growth in area.

4.5 The decrease in area under rice by over 8 per cent is alarming. The reduction is substantial in virippu (16.09 per cent) and punja (13 per cent) season. It appears that the favourable rains received during the North East Monsoon season of 1987 could not motivate the rice growers to take an additional crop.

4.6 The productivity of crops presents a different picture. The productivity of annuals and seasonals in general (paddy, tapioca, turmeric, banana and plantain, sweet potato, groundnut and sesamum), recorded though marginal positive growth. Cashew recorded substantial decline in productivity, whereas productivity of arecanut improved marginally.

4.7 Drastic reductions in area under annual and seasonal crops have resulted in either decline or stagnation in production, despite marginal improvement in productivity. Drop in production is seen in rice (-101201 tonnes) pulses (-618 tonnes), sugarcane (-15707 tonnes), ginger (-4676 tonnes), turmeric (-98 tonnes), cardamon (-450 tonnes) banana (-238) tonnes), plantain (-267 tonnes), tapioca (-111070 tonnes), groundnut (-1107 tonnes), sesamum (-248 tonnes) and cotton (-127 tonnes). The drop in production of cashew is of the order of 17020 tonnes due to the decline in productivity. Comparative data on area production and productivity of important crops in Kerala for the year 1986-87 and 1987-88 are presented in Table 4.4

Overall Trend in the Performance of Different Categories of Crops

4.7 Category-wise indices of area, production and productivity of major crops for the last 10 years are given in Table 4.5. Crop production in general recorded a negative trend during the last 10 years as could be seen from Table 4.5. The index number on production has come down from 100.17 to 81.94 during the period. The indices relating to area and productivity declined from 101.48 to 96.94 and from 98.71 to 84.54 respectively.

4.8 In production performance on a cluster basis, both food grains and non-foodgrain crops present an almost similar picture with a drop in production of around 17 points. But the factors leading to this situation are different. Despite improvement in productivity levels recorded by the food crops in general, the overall production could not be sustained because of large scale diversion of area.

4.9 The Index number of productivity of food crops increased from 96.22 to 107.87, while the area index came down from 102.55 to 74.61. Both cereals and pulses present the same trend. Non-foodgrain crops as a group present a totally different picture. The area under this category of crops increased (index numbers being 101 and 107.21), while the productivity levels declined considerably (index number on productivity coming down from 99.52 to 76.74).

4.10 Area under almost all non-food crops were generally maintaining an increasing trend except fruits and vegetables which showed a negative growth due to inclusion of tapioca in this category. Maximum growth in area was recorded by plantation crops followed by condiments and spices. On the productivity aspect, all these categories of crops show negative trends with the only exception of condiments and spices. The increase in production of plantation crops and condiments and spices is entirely due to expansion of area. The emerging picture reveals a high degree of Commercialisation in Kerala Agriculture with substantial diversion of area from food crops to cash crops. Earth misnomer, however is confined to area expansion and is not reflected in efficient management for better production.

Performance of Major Crops

4.11 (a) *Rice*: Production of rice further declined from 11.33 lakh tonnes to 10.32 lakh tonnes during 1987-88, because of the steep fall in area under rice from 6.64 lakh ha. to 6.04 lakh ha. Though there is decline in area in all the 3 seasons, it is more pronounced during virippu (-46124 ha) and punja (-10420). The drop in production consequent to the reduction in area has

been compensated to a considerable extent by the increase in productivity in the virippu season (113 kgs.). But the Mundakan and Punja crops suffered severe set back in productivity also. The average productivity of Mundakan crop has come down from 1672 to 1600 kg. per ha., while the drop in productivity of punja crop was from 2105 to 2035 kg/ha. The overall productivity of rice could however show a nominal increase of 1 kg. per ha. Season-wise data on area, production and productivity of rice is given in Table 4.6.

4.12 The reason for set back in production suffered by the crop in all the seasons could be attributed to the poor performance of high yielding varieties, both in coverage and production. The coverage of high yielding varieties which has been showing a negative trend from 1984-85 onwards touched its lowest ebb. It plummeted from 2.20 lakh ha. in 1984-85 to 1.19 lakh ha. during 1987-88 with considerable decline in all the 3 seasons. Punja season which was all along maintaining a steady and stable performance, with more than 50 per cent area under these varieties, also seems to have failed to retain this distinction. The overall percentage of coverage under high yielding varieties during 1987-88 was only 19.8 per cent of the total area under rice. This is no doubt much below the potential.

4.13 The average productivity recorded by the high yielding varieties during 1987-88 was 2075 kg. per ha., which is only 21 percent above the State average for all varieties. Though the yield levels of these varieties are above that of other varieties in all the 3 seasons, the performance is sub-optimal. The trend is negative during mundakan and punja seasons. Season-wise performance of high yielding varieties of rice during 1986-87 and 1987-88 is shown in Table 4.7.

4.14 Particulars of district-wise performance of rice production during 1986-87 and 1987-88 are given in Table 4.8. Excepting the districts of Pathanamthitta and Alleppey, the crop suffered set back in production. Pathanamthitta is the only district which presents an encouraging picture in the otherwise depressing rice scenario of Kerala. The performance of the district is unique as it shows positive growth in area and productivity of rice compared to 1986-87. The increase in production is also substantial (36.94 percent). The district also enjoys the highest productivity (2375 kg./ha.) recorded in the State during the year. The increase in production (5323 tonnes) recorded in Alleppey district is due to the increase in productivity from 1736 to 2026 kg. per ha., despite a reduction of 7075 ha. in area. The high altitude districts of Wayanad and Idukki account for a greater decline in production (37.17 and 28.77 percent respectively) mainly due to high degree of diversion in area (29 and 24 per cent). Both area and productivity of rice are on the decline in the districts of Trivandrum, Idukki, Ernakulam, Trichur, Palghat, Malappuram, Kozhikode and Wayanad. Maximum decline in area (10199 ha.) is in Palghat district which incidentally enjoys the maximum irrigation support. The reduction in area is substantial in the districts of Alleppey (7075 ha.) Wayanad (8700 ha.),

Trichur (5351 ha.), Malappuram (5837 ha.), Kasaragode (5326 ha.) and Cannanore (4456 ha.). In the case of productivity also the performance of the districts are at wide variance ranging from 1027 kg/ha. in Kozhikode to 2375 kg/ha. in Pathanamthitta.

(b) *Pulses*

4.15 Area production and productivity of pulses have marginally declined during 1987-88. The crop was under cultivation in 27422 ha. with an average productivity of 709 kg. per ha. Production of 19444 tonnes recorded for the year is less by 618 tonnes than the previous year. Palghat district accounts for the largest share in area and production of pulses followed by Cannanore. Highest productivity is in Kottayam district (894 kg.) followed by Alleppey (864 kg). Trivandrum district which accounts for over 10 per cent of the area recorded the lowest productivity (229 kg).

(c) *Coconut*

4.16 The area and production of Coconut during 1986-87 are 7.06 lakh ha. and 3173 million nuts. Though the figures relating to the year 1987-88 are yet to be finalised, performance of the crop during 1988 is reported to be encouraging.

(d) *Pepper*

4.17 During 1986-87 the area under pepper was 1.23 lakh ha. with the production of 30378 tonnes. The figures for 1987-88 are being finalised;

(e) *Tapioca*

4.18 Despite improvement in productivity the production of tapioca declined from 3.29 to 3.18 lakh tonnes consequent to the reduction in area from 1.92 to 1.79 lakh ha. Trivandrum district accounts for the largest share both in area (27 per cent) and production (27 per cent) of the commodity.

4.19 Data on district wise-area, production and productivity of important crops are given in Appendix 4.2.

Plantation Crops

4.20 Plantation Crops in general performed very well during the year 1987-88 with the exception of Coffee. Production of natural rubber in the country increased from 219,520 tonnes of 1986-87 to 235,197 tonnes registering an impressive growth of 7.1 per cent. The growth in consumption of rubber was more impressive—287,480 tonnes during 1987-88 as against 257,305 tonnes in the previous year, recording a growth of 11.7 per cent. In order to meet the gap between demand and supply 53,685 tonnes of natural rubber was imported, including 11,694 tonnes under the export incentive scheme. (Please see Appendix 4.3).

4.21 The area and production of rubber in Kerala increased from 347,814 ha. and 2,02,129 tonnes in 1986-87 to 348,000 ha. and 216,562 tonnes in 1987-88 respectively. The average productivity also registered substantial increase from 581 to 622 kg/ha. during the year. In 1987-88 Kerala accounted for 87.5 per cent of area and 92.07 per cent of production of natural rubber in the country.

4.22 Under the 'Buffer Stocking Scheme' operated through S.T.C., the price of RMA—4 graded rubber was raised within a price band of 1650-1750 per quintal in May 1987. This price was fixed on the basis of the cost of production study made by the Accounts Branch of Ministry of Finance, Government of India. Despite an increase of around 34 per cent in the international price the internal prices remained more or less steady at a little above the upper limit of Rs. 1750 per quintal fixed by Government of India as could be seen from the monthly averages given in Table 4.10.

Tea

4.23 The production in the country during 1987 reached an all time high of 673.4 million kg. which was 48.8 million kg. more than the production of 624.6 million kgs. in 1986. Consequently the export of the Commodity during 1987-88 also rose to 207.6 million kgs. from 197.4 million kgs. in 1986-87. The unit value realisation of tea was marginally higher at Rs. 29.95 per kg. than Rs. 29.84 per kg. in 1986-87. The import replenishment facility allowed for export of tea in bulk under the Import-Export policy 1988-91 announced by Government of India is expected to give a big boost to exports and internal production.

Coffee

4.24 Coffee production in the country during 1987-88 was estimated at 1.20 lakh tonnes. This is less by 37.2 per cent compared to the production of 1.91 lakh tonnes in 1986-87. The decline in production is both in Arabica variety (65,000 against 89,000 tonnes) and the robusta variety (55,000 tonnes against 102,000 tonnes).

4.25 On the demand side, the domestic consumption during the year 1987 reached a record level of 58,603 tonnes as against 54,400 tonnes in 1986. During 1987-88 the export of Coffee is estimated to be around 92,500 tonnes as against 86,700 tonnes in 1986-87. In terms of value the export works out to Rs. 256 crores.

4.26 The export duty on coffee fixed at Rs. 170 per qtl. with effect from May 19, 1987 was abolished with effect from August 1988.

Cardamom

4.27 The area under Cardamom in Kerala increased during 1987-88 from 62,740 ha. to 64,627 ha. Production declined to 2050 tonnes from 2500 tonnes in 1986-87, and productivity from 40 to 32 kg/ha. Export of the Commodity also suffered a severe set back. Against 1447 tonnes of Cardamom exported during 1986-87, export during 1987-88 was only 270 tonnes. Kerala's share in the production of Cardamom during 1987-88 was 97.4 per cent. The price situation international as well as internal during the year was not comfortable. The unit value realisation from exports came down Rs. 125.80 per kg. from 127.80 per kg. recorded in 1986-87. Please see Table 4.11. A recent survey conducted by the Operation Research Group, Bombay at the instance of the Spices Board indicates that the internal demand for Cardamom has increased considerably and is estimated to be around 2500 tonnes. The market development programmes initiated by the Spices Board in Middle-East including the projects for developing new food products using Cardamom with assistance from the International Trade Centre, Geneva is expected to stabilise the demand for Indian Cardamom at reasonable levels.

4.28 Share of Kerala in area and production in the country in respect of important crops grown in Kerala is given in Table 4.9

Supplies and Services

(a) Seeds

4.29 Bulk of the seed requirement of the Crop sector continues to be met from Government sources. During 1987-88 a total of 2450 tonnes of high yielding variety paddy seeds were distributed. This is in addition to the 14,765 nos. of minikits of improved strains distributed under the minikit programme. Other seeds distributed include 295 tonnes of pulses 21.3 tonnes of sesamum, 79.7 tonnes of groundnut distributed under the small and marginal farmers programme.

(b) Fertilisers

4.30 The increasing trend in the consumption of fertilisers could be sustained during 1987-88 as well. The consumption touched its peak level of 1,82,490 tonnes recording an annual growth of 20 per cent which is the highest during the last decade. Relevant data on nutrient-wise consumption of fertilisers during the last 17 years is given in Appendix 4.5. Among the nutrients, phosphorous registered maximum increase of 38 per cent followed by Nitrogen (16 per cent) and potash (14 per cent). It is estimated that fertilisers worth Rs. 76 crores were distributed during 1987-88 in the State.

(c) Plant Protection Chemicals

4.31 The consumption of plant protection chemicals during 1987-88 (1059 tonnes) was more or less stagnant while the area under plant protection coverage decreased from 6.16 lakh ha. to 5.37 lakh ha. use of

insecticides and rodenticides recorded increase from 472.15 to 556.54 tonnes and 24.35 to 25.733 tonnes respectively of technical grade material. On the other hand consumption of fungicides decreased from 536.45 tonnes to 468.81 tonnes. Other plant protection services rendered during the year include liberation of 177.27 lakhs parasits against the Coconut caterpillar 'Nephantis', spraying of 997 lakh coconut palms against coconut leaf rot disease, weed control operations for paddy in 1.58 lakh ha. rodent control operation in 1.78 lakh ha. and distribution of 845 plant protection equipments.

(d) Soil testing services

4.32. With a view to promote balanced use of fertilizers, soil testing services were rendered by the Department of Agriculture through the existing 12 soil testing laboratories and 2 mobile laboratories. A total of 264,505 Soil samples were analysed during the year.

(e) Quality control of inputs

4.33 As part of the measures for enforcing quality control of inputs 1680 fertiliser samples and 858 pesticides samples drawn from private trade were subjected to detailed analysis during 1987-88.

(f) Extension Service

4.34 In accordance with the new strategy for agricultural development announced by Government in 1987, Krishi Bhavans (1048) were established in all the local body units. Advisory Committees were also constituted at the Panchayat, District and State levels for ensuring peoples participation. Formulation of location specific schemes for implementation with institutional finance, was taken up in all the districts. The reorganised extension service is expected to give a new thrust to agricultural development.

(g) Information communication support

4.35 Foam Information Bureau continued to provide information communication support to the farm front through various media. They include farm news service through radio, farm features and publications through print medium, film shows, exhibitions, features through Doordarshan etc. Dissemination of agricultural information was continued through the 'Karshika Rangam' pages of more than 15 dailies. Publicity support was also provided for the Onam Vegetable Production Programme organised by the Department of Agriculture, World Food Day Celebrations organised by Government. Intensive Rabies Eradication campaign of the Department of Animal Husbandry and the Dairy Industry Conference held at Trivandrum during August 1988. The Bureau also participated in the India International Trade Fair held at New Delhi during November 1988 and the Kerala Pavilion won the first prize among the State sector pavilions. The Bureau also had the distinction of winning first prizes for the pavilions set up in All India Exhibition held at Trivandrum from August to October 1988 and in connection with the Southern Regional Cattle and Poultry Show organised by the Directorate of Extension, Ministry of Agriculture at Palaghat in December 1988.

Prices of farm inputs

4.36 Data on average prices of important agricultural inputs during 1985-87 and 1987-88 are given in Appendix 4.6. Excepting green manure seeds the prices of all inputs including fertilisers remained constant during the period.

Agricultural Credit

4.37 Credit is a vital input in promoting development. The refinance assistance towards investment credit provided by NABARD under various schemes increased steadily from Rs. 44.79 crores in 1985-86 to Rs. 53.31 crores in 1986-87 and Rs. 58.06 crores in 1987-88, recording an increase of 8.91% over the previous year. The agency-wise distribution of refinance assistance by the National Bank shows that commercial banks had availed of the maximum assistance of the order of Rs.26.21 crores (45.1%) followed by Kerala State Co-operative Agricultural Development Bank—Rs.18.50 crores (31.86%), State Co-operative Bank—Rs.9.40 crores (16.19%) and Regional Rural Banks—Rs. 3.95 crores (7%). A purpose wise analysis of the aggregate refinance provided by NABARD reveals that the biggest share of Rs.16.02 crores (27.59%) was accounted for by IRDP, followed by plantation/horticulture crops like rubber, coffee, tea, cardamom, pepper, betelvine etc.—Rs. 14.50 crores (24.97%), development of irrigation facilities including land development Rs.12.56 crores (21.63%) and farm mechanisation Rs.1.27 crores (2.19%). Compared to the refinance support provided during the previous year, assistance for plantation and horticulture decreased by 20.19% while that for IRDP shows an increase of 20.41%. Apart from investment credit, a sum of Rs. 139.77 crores was provided by NABARD as short term and medium term credit for farm activities, production and marketing activities of primary and apex handloom societies, coir and other industrial societies. Besides co-operatives, short term and medium term credit support amounting to Rs. 48.50 crores was sanctioned to the two Regional Rural Banks during 1987-88. An amount of Rs. 4.85 crores was sanctioned from the L.T.O. fund to strengthen the share capital base of co-operatives against Rs.1.75 crores sanctioned during 1986-87. During 1987-88 the National Bank sanctioned a total of 500 schemes involving a refinance commitment of Rs.10.340 lakhs.

4.38 The total advances by commercial banks as on March 1988 was Rs.2955 crores while that as on 30-9-1987 was Rs.2860 crores. By March 1988 the outstanding under the priority sector advances had reached a level of Rs.1509 crores (ie. 51% of the total advance) from Rs. 1467.96 crores as on 30-9-1987. The share of agriculture was the largest in the total priority sector advances. At the end of March 1988 the outstanding advances to agriculture and allied activities formed 39.06% of the total priority sector credit and 19.94% of the gross bank credit.

4.39 Co-operatives are in the forefront in the disbursement of credit for agriculture and allied activities. During 1986-87, the Apex Bank (KSCB) disbursed Rs.13,696.69 lakhs for agricultural purposes out of a total disbursement of Rs. 21,480.32 lakhs

ie, about 64% of the total advance. The overdues which stood at Rs.99.05 lakhs at the end of June 1986 rose to Rs.174.33 lakhs at the end of June 1987.

4.30 During the Co-operative year 1985-87, 1570 Primary Agricultural Credit Societies with a membership of 68.18 lakhs were engaged in the disbursement of credit. The average membership per society increased from 3982 to 4343 in 1986-87, raising the average share capital per society to Rs.3.58 lakhs from Rs. 3.24 lakhs in 1985-86. The average deposit per society has gone upto Rs.28.93 lakhs in 1985-87 from Rs. 25.91 lakhs in 1985-86 raising the average deposit per member to Rs.667/- from Rs. 651. The average working capital per society has also increased from Rs.44.01 lakhs to Rs.50.76 lakhs. Slight decrease is however, noted in the number of borrowing members. Out of a total membership of 68.18 lakhs, the number of borrowing members comes to 25.66 lakhs ie. 37.6% of the total members, whereas the percentage of borrowing members to total members was 40.86 during 1985-86. Eventhough the number of borrowers has decreased, the average loan advanced per borrowing member has gone up from Rs. 2065 to Rs.2331 during the year 1986-87.

4.41 The loan disbursement by Co-operatives is encouraging. The total loan disbursed during the Co-operative year 1986-87 aggregated to Rs. 598.05 crores against Rs.528.80 crores during 1985-86, the percentage increase being 13.09. The loan advanced for agricultural purpose alone comes to Rs.281.31 crores (47.04%), against a disbursement of Rs. 248.81 crores during the previous year. The percentage share utilised for agricultural purpose seems to be steady during the last two years. The loan outstanding during 1986-87 was Rs. 611.90 crores whereas the corresponding figure for the previous year was Rs. 484.84 crores. The loan overdue stood at Rs.10907 lakhs against Rs. 10478 lakhs during 1985-86. The percentage of overdue to outstanding has decreased from 20.38 to 17.82. The progress in the overall working of credit co-operatives is also good. Out of the 1570 PACS, 1343 societies are viable and 227 Societies are potentially viable. There are paid Secretaries in 1534 Societies. The number of societies working on profit has declined from 884 to 807. But the profit earned has increased from Rs.742 lakhs to Rs. 800 lakhs. During the period, 35 Societies worked without loss or profit.

4.42 In deposit mobilisation, against a target of Rs. 30.00 crores, the co-operatives were able to mobilise Rs. 113.15 crores during 1988.

4.43 The selected indicators of the performance and credit operations of Primary Agricultural Credit Societies during 1985-86 and 1986-87 are given in Appendices 4.7 and 4.8.

4.44 The long-term co-operative credit structure comprising KSCAD3 and Primary Agricultural Development Banks disburse long-term credit to agriculturists in the State. Against a target of Rs.40.00 crores fixed by NABARD for 1987-88, the Bank's achievement was Rs. 43.87 crores. In lending, schematic lending was given top priority. Out of the total loan advanced major share ie, Rs. 24.05 crores was for schematic lending followed by ordinary

lending of Rs.14.81 crores and Rs. 5 crores for non-farm sector. For mobilising resources for various developmental purposes, the Bank floated ordinary debenture for Rs.1765 lakhs, scheme debenture for Rs. 2092.90 lakhs and non-farm debentures for Rs. 17.03 lakhs during the financial year 1987-88. Due to the revision of norms fixed by NABARD for interest subsidy, most of the primary banks were in the 'restricted' category of lending. The percentage of overdues to demand which stood at 33.77% as on 30-6-1987 increased to 35.59% as on 30-6-1988 at the KSCADB level.

4.45 National Co-operative Development Corporation is a financing institution for the development of the Co-operative sector in the country which helps to promote, strengthen and develop the institution of farmers' co-operatives for increasing production and productivity and instituting post harvest facilities for augmenting income. In the farm sector NCDC had financed programmes like processing, storage and marketing of agricultural produce and supply of consumer goods in rural areas. In the non-farm sector, the assistance was to equip co-operatives with facilities to promote income generating activities such as poultry and fishery for the benefit of the rural poor. Out of the total financial assistance released to States/Union Territories under various co-operative development programmes, Kerala's share has gone up from Rs.2788.15 lakhs (cumulative from 1962-63 to 1986-87) to Rs. 3268.59 lakhs in 1987-88, representing an increase of 17.23 percent.

Production Programmes

4.46 The relief measures and rehabilitation programmes taken up by the State on a massive scale during 1986-87 had to be continued during 1987-88 as well. Programmes involving a total subsidy commitment of Rs. 896.84 lakhs were implemented during 1987-88. These include fertilizer subsidy for paddy, coconut pepper, arecanut, banana and tapioca, distribution of paddy, pulses, groundnut and vegetable seeds as well as planting materials of sugarcane, coconut, pepper and tree spices.

4.47 A special programme for construction of wells and tanks for coconut and other commercial crops by way of drought proofing and for creation of additional employment opportunities was launched with credit support from institutional financing agencies. Under this time-bound programme a total of 3723 wells could be constructed with a subsidy support of Rs. 99.97 lakhs benefitting 2650 ha. credit support to the tune of Rs. 156 lakhs for the programme was extended by the Kerala State Co-operative Bank, Kerala State Co-operative Agricultural Development Bank and Canara Bank.

4.48 Krishi Bhavans established during 1987 by reorganising the extension service of the Department of Agriculture have started functioning. Programmes involving a total outlay of Rs. 30 crores have been identified for implementation with credit support from financing agencies. The functionaries of the extension service at the Panchayat, District and State level were given intensive training on formulation of credit linked schemes. The Advisory Committees constituted at the Panchayat, District and State level are also active in providing guidance and leadership in agricultural development activities.

4.49 A Major activity taken up by the Krishi Bhavans with public participation was vegetable production. As part of the drought relief programme, vegetable cultivation was promoted in 5 lakh home steads by distributing at nominal rates minikits containing the required seeds and fertilizers. The scheme was launched as part of the drought relief programmes at a cost of Rs. 43.50 lakhs.

4.50 As in the previous year production, procurement and distribution of vegetables were organised during the onam season through selected Krishi Bhavans involving the Primary Agricultural Credit Societies in selected panchayats. The salient aspects of the scheme are as follows:—

Vegetable seeds distributed	493 kg.
Minikits distributed (Nos.)	30137
Krishi Bhavans Involved (Nos.)	815
PACS involved (Nos.)	1221
Quantity of vegetables including tubers and banana produced (Tonnes)	6187

4.51 Intensive agricultural development activities were taken up in 198 selected micro watersheds under the Twenty Point Programme. Land development works were taken up in 8275 ha. and 591 improved agricultural implements were distributed in these watersheds. Over and above this, dry land farming techniques were popularised in 5558 ha. in areas outside these watersheds.

4.52 The National Watersheds Development Project was under implementation in Wadakkara-pathy Panchayat of Palghat District. The targets and achievements under this project are indicated below.

	Target	Achievement
Land Development Works	600 ha.	550 ha.
Adoption of cropping pattern	400 ha.	485 ha.
Coverage under dry land horticulture	100 ha.	160 ha.
Contingency seed stocking	..	358 kg.
Adaptive trial	10 Nos.	10 Nos.

4.53 Development of pulses and oil seeds is another important component of the Twenty Point Programme. Against the target of 28,000 tonnes of pulses fixed for the State the estimated production was only 19,284 tonnes. The centrally sponsored scheme for pulses development was continued with 50 percent central assistance during 1987-88. The achievements under the scheme include Block Demonstrations in 20 ha., production and distribution of 7651 packets of rhizobium culture, 845 minikit distributions, demonstrations of 0.2 ha., size and adaptive trials in 22 ha.

4.54 Rice production efforts also received particular attention during the year. Multiplication and distribution of high yielding varieties of paddy through registered growers was the major programme implemented in support of the high yielding variety programme. Procurement and distribution of 2383-97

tonnes of paddy seeds were effected by organising seed multiplication in 223 ha., during the year. Plant protection service was provided to 7.32 lakhs ha., including 1.58 lakh ha. under weed control and 0.38 lakh ha. under seed treatment. Under the endemic area scheme P.P. chemicals and operational charges were subsidised for the control of brown hopper and leaf folder in 17720 ha. fertilizer subsidy @ Rs. 100 per ha. covered 68,000 ha. of paddy at a cost of Rs. 18.10 lakhs.

4.55 Agricultural programmes as part of the special component plan for scheduled castes and the tribal sub plan were also continued during the year. Location specific schemes involving an outlay of Rs. 313.1 lakhs under SCP and Rs. 112.15 lakhs, under TSP were taken up for the economic uplift of these weaker sections. Planting materials of almost all crops and various types of implements and machinery were distributed free, besides fully subsidising the investments for infrastructure development. More than 1.1 lakh S.C. families and 1200 S.T. families were benefited by the scheme. Details of physical achievements under the scheme are given in Table 4.14.

4.56 Under the programme for increasing agricultural production in small and marginal holdings the Department of Agriculture distributed free of cost 73,686 minikits of pulses, each containing 4 kg; 2663 kits of groundnut each containing 30 kg; 74074 kits of coconut seedlings each containing 5 seedlings, 1005 maize kits, each containing 4 kg; 398 kits (2 kg) of Sorghum and 21,345 kits of sesamum (1 kg.). This has helped 157,874 small & marginal farmers. In addition to this assistance for land development was also provided to 29,226 farmers benefiting 7725 ha. under this programme.

4.57 Under coconut development 13.43 lakhs west cost tall variety, 0.73 lakh T x D and 0.09 lakh D x T hybrid seedlings were distributed.

4.58 With assistance from Coconut Development Board, 727 pumpsets were distributed at 25 per cent subsidised rate for irrigating coconut. A new scheme for promotion of integrated farming in small coconut holdings was also taken up with financial support from Coconut Board. Under this scheme 5695 diseased and unproductive palms were cut and removed, 30 wells were constructed, 117 pumpset distributed, besides demonstrating fertilizer use in 968 ha. of coconut gardens and multispecies cropping in 393 ha.

4.59 A major programme for the integrated development of spices was implemented with 50 per cent assistance from Government of India. Under this scheme 10.22 lakhs locals and 4.89 lakhs Panniyoor 1 variety of pepper cuttings were distributed, model pepper garden were established in 14 ha. 43,195 minikits of fertilizers and chemicals were distributed, 95 sprayers were subsidised, 500 ha. pepper garden was rehabilitated, 33,126 clove and 2408 nutmeg seedlings were distributed at a total cost of Rs. 55.17 lakhs.

4.60 The National Project for Biogas development was continued during 1987-88 with 100 per cent central assistance and 1789 plants were set up by providing assistance to the tune of Rs. 73.71 lakhs.

Soil Survey

4.61. Detailed Soil survey of Command areas of Kuriarkutty-Karappara Project (Chittoor Taluk), Water-shed survey in Vadakarapathy (Palghat District) detailed survey in Kothamangalam, Kottayam & Chnganassery were completed. Survey of Muvattupuzha, Chittar, Karthikappally, Vaikom, Trichur and Cannanore is in progress. An area of 22,800 ha. was covered under the programme 'detailed soil survey'. Reconnaissance soil survey of Chittoor, Ernad and Meenachil Taluks is in progress and that of Vaikom Taluk has been completed. An area of 80,000 hectares was covered under the programme 'Reconnaissance Soil Survey'. Integrated soil survey in the catchment area of Meenachil Project has been completed and survey work in Pampa Project is in progress. An area of 19,500 hectares of land was covered under the programme 'Integrated Soil Survey'. Study of Bench mark soils of Trivandrum District is in progress. During the course of field soil survey, a large number of soil samples were identified and mapped.

4.62 An intensive orientation programme on Soil Resource Mapping was conducted in collaboration with the National Bureau of Soil Survey and Land Use Planning. Technical personnel of Soil Survey Wing of Agriculture Department, State Land Use Board and scientists from Kerala Agricultural University participated in the programme. A workshop on soil survey, classification and interpretation was also organised.

Soil Conservation

4.63 The achievement under soil and water conservation in Arable Lands was 127 hectares, about 45% less than the coverage in the previous year. Physical achievement under 'Soil Conservation measures in selected water sheds availing institutional finance' was 60.04 hectares showing a marginal improvement over the previous year. The performance under Special Component Plan and tribal area sub-plan shows about 10% increase in coverage. About 392 hectares of land belonging to Scheduled Casts and Scheduled Tribes were covered by suitable measures of conservation to improve the productivity of the land. An area of 1020 hectares of land was brought under various Soil Conservation measures in the catchment area of Kundah River Valley Project implemented as a 100% Centrally Sponsored Scheme with 50% subsidy and 50% loan. The achievement during the previous year was 1330 hectares. State, district and field level conferences to review the progress of implementation of various schemes of soil erosion were held. A review meeting of the standing committee on Decan Nilgiris was also held. Heads of Departments of Agriculture and Forest of Maharashtra and the Southern States attended the meeting. An action Programme for River Valley Projects were chalked out at the meeting.

Land Use Planning

4.64 The project for identification of Wastelands in the State at the instance of the National Wasteland Development Board was completed. The second phase of the activities is in progress. The work of land use survey of the State and preparation of optimum land use plan is in progress. The first phase in the preparation

of land use maps of Kuttanad region at the instance of Kuttanad Water Balance Study project has been completed and the second phase is in progress. The work of 'accuracy checking' of the forest maps prepared by the National Remote Sensing Agency (NRSA) was completed. Liaison work for preparing urban maps for Calicut, Cochin and Trivandrum cities is in progress. A study of rubber plantations in the State in collaboration with the Rubber Board and Space Application Centre, Ahmedabad is in progress. Identification of area for compensatory afforestation for the Pooyankutty Project was completed and the work for Chimony project is in progress.

Agricultural Marketing

4.65 The Government's policy on development of agricultural marketing was largely centered round the promotion of a network of co-operatives for procurement, storage and marketing of selected farm produce.

4.66 The major institutional agencies engaged in marketing agricultural produce are the Kerala State Co-operative Marketing Federation, Kerala State Rubber Marketing Federation, Central Arecanut & Cocoa Marketing & Processing Co-operative, Kerala State Coconut Development Corporation, Cashew Apex Industrial Co-operative Society and the Kerala Kerkarshaka Sahakarana Federation (Kerfed). Even though these agencies have played a useful role over the years, the overall benefits accrued have not been at the desired level due to various reasons.

4.67 The Kerala State Co-operative Marketing Federation has been procuring and Marketing major agricultural commodities through a network of primary co-operatives. The overall performance of the Federation during 1987-88 was not impressive. The Corporation had difficulties in obtaining adequate and timely financial assistance from nationalised banks and NABARD, to support its procurement operations. As a result it could procure only 4700 Mts. of Cropa worth Rs. 100 lakhs in 1987-88. It handled 1031 Mts. of pepper worth Rs. 295 lakhs and 60.4 Mts. of honey worth Rs. 15 lakhs during 1987-88.

4.68 The Kerala State Co-operative Rubber Marketing Federation is the apex institution having 33 Co-operative Rubber Marketing Societies under its fold. The Federation procured 25,927 Mts. of rubber during 1987-88 as against 21,020 Mts. during 1986-87. It sold 25,507 Mts. in 1987-88 against previous year's 21,403 Mts. There is thus an increase of 23 per cent in procurement and 19 per cent in sales during 1987-88

over the previous year. Even though there has been a marked improvement in the procurement of fertiliser which increased by 27 per cent in 1987-88, the off-take declined by about 8.7 per cent over 1986-87. During the year under review the Federation earned a net profit of Rs. 8.85 lakhs.

4.69 The Central Arecanut & Cocoa Marketing & Processing Co-operative Limited (CAMPCO) handled 291,207 qtls. of arecanut valued at Rs. 5,381 lakhs during 1986-87 as against 254,925 qtls. valued at Rs. 5763 lakhs in 1985-86. Even though CAMPCO could increase the procurement by 14 per cent in 1986-87, there has been a fall of 6.6 per cent in value terms as a result of a fall in price. CAMPCO also procured cocoa worth Rs. 211.55 lakhs during 1986-87 as against Rs. 336.61 lakhs during 1985-86.

4.70 The Kerala State Warehousing Corporation has a total storage capacity of 167,487 Mts. including 57,156 Mts. of capacity in hired godowns, with an average occupancy rate of 76.3 per cent during 1987-88. The total storage capacity has declined by 4.42 per cent over the previous year as a result of a pronounced decrease in the number of hired godowns, though there has been an increase in own storage capacity. During 1987-88 the Corporation handled 66,311 Mts. of goods, mainly fertilizer, rice, wheat, cement etc. It has diversified its activities in the field of handling and transportation and acted as an agent of the State Trading Corporation in the price support scheme of rubber. The Corporation earned a profit of Rs. 22.80 lakhs during the year under review.

Grading and Quality Control

4.71 The scheme for grading of agricultural produce under 'Agmark' is being implemented by the Marketing Wing of the State Department of Agriculture, while grading under 'Agmark' for export, which is compulsory, is under the control of the Directorate of Marketing & Inspection, G.O.I. There are eight Agmark Grading Laboratories functioning under the State Department. They handle mainly coconut oil, gingelly oil, honey and ground spices. Besides, there are seven private grading laboratories in the State. During 1987-88, 66,990 qtls. of coconut oil, 10,270 qtls. of gingelly oil and 1496 qtls. of honey were graded. It represents a growth rate of 98.80 per cent, 37.67 per cent 308.74 per cent, respectively over the previous year. The physical achievements from 1984-85 to 1987-88 are given in the table given below:

Table 4.15
Commodities graded under Agmark 1984-85 to 1987-88

Year	Coconut Oil		(Qty. in qtls. and value Rs. in lakhs)				Ground Spices	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1984-85	8785	283.04	5487	108.29	752	18.16	1541	26.09
1985-86	35015	649.33	6502	78.18	879	22.18	1411	96.12
1986-87	33697	950.54	7459	92.76	366	11.59	1391	28.53
1987-88	66990	1982.01	10270	338.88	1496	50.96	1157	34.84

Source: State Department of Agriculture.

Livestock

Cattle Breeding

4.70 Cross breeding is the major activity sponsored by the State in the field of Animal Husbandry and Dairy to increase production and per capita availability of milk. The progress in the area of cross breeding in the State is substantial, as more than 60 per cent of the breedable female cattle are cross-breds. The Kerala Live Stock Development and Milk Marketing Board, produced 12.67 lakh doses of frozen bull semen and 2.70 lakh doses of buffaloe semen. The Board distributed 13.79 lakh doses of frozen semen showing a nominal increase over the previous year. The total number of artificial inseminations carried out during the period through different State agencies functioning in the State were 13.93 lakhs, compared to 13.35 lakhs in the previous year.

Veterinary Services

4.71 All aspects relating to Animal health were taken care of by the Animal Husbandry Department through a net work of Veterinary institutions at different levels to provide veterinary aid. The network comprises of 51 Veterinary Polyclinics, 564 Veterinary Hospitals/Dispensaries, 12 Mobile Veterinary Hospitals and 18 Mobile Farm Aid Units, all manned by veterinarians. These institutions were supported by 6 District Veterinary Centres which in addition to being veterinary institutions, function as 'Referral Centres' of the other institutions in the area. The Veterinary Poly-clinics and the Mobile Farm Aid Units provide domicilliary service to some extent.

4.72 Veterinary clinical aid was provided through clinical laboratories attached to the veterinary polyclinics and District Veterinary Centres. Advanced clinical and disease diagnostic facilities for identifying contagious and emerging diseases were provided by the Regional Clinical Laboratories and Avian Disease Diagnostic Laboratory. The Chief Disease Investigation Laboratory at Palode liaises with the other diagnostic laboratories in the study and investigation of the incidence of contagious and emerging diseases. Preventive Veterinary medicine in respect of most contagious diseases is supplied by the institute of Animal Health and Veterinary Biologicals, Palode, which meets the State's requirement of Tissue Culture, Rinderpest Vaccine, Poultry and Duck Disease Vaccine and Common Bacterial Vaccines.

4.73 Two massive disease control programmes in the State are Rinderpest Eradication Scheme and Scheme for Control of Diseases of National Importance. Rinderpest disease has been effectively controlled. Disease surveillance and vaccination in strategic areas is continuing. The latter scheme strives to establish a 'Disease Free Zone' in the State.

4.74 A total number of 37.25 lakh cases were treated through the veterinary institutions established in the State. During the period under review, 16.49 lakh livestock and 23.77 lakh poultry were protected through vaccination. The Institute of Animal Health and Veterinary Biology, Palode produced 92,90,950 doses of vaccine for Avian and Cattle diseases.

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4.75 Veterinary Public Health has not established well in the State, except for the meat inspection procedures in the cities and towns.

Livestock Production

Milk

4.76 Milk Production recorded an increase of 6.82% over the previous year. The estimated production was 14.26 lakh tonnes (provisional) against 13.34 lakh tonnes in the previous year.

Poultry

4.77 Production of eggs registered an increase from 1397 million to 1440 million (provisional) showing an increase of 3.08% over the previous year. The main source of production are back yard units. Though the production has increased over the years, the State is a large importer of eggs. However broiler production is fast developing in the State.

Meat production

4.78 The recorded production in the State during the period under review is 28,197 MT which is 5.1% more than the previous year's 26,829 MT. In addition to this, the Meat Products of India Ltd., Koothattukulam produced 51275 kgs. pork products, 43375 kgs. of beef/buffaloe products, 68842 kgs. of chicken products, 3989 kgs. of mutton products during 1987-88.

Dairy Extension

4.79 Livestock Management Training Centres under the Department of Animal Husbandry and Training Centres run by the Department of Dairy Development continued to provide inservice training to para-veterinary personnel, extension training to farmers, inservice training to Cattle Improvement Assistants, etc.

4.80 The Department of Dairy Development assisted the construction of 376 cattle sheds in farmsteads. The departmental personnel visited 53,041 houses organised 74 camps to treat infertility in animals conducted 96 cattle shows, 110 film shows and 5,877 discussion classes, provided purgatives and deworming medicines to 21,994 calves and supplied vitamin supplements for 7,634 animals. As regards weaker sections, the Department assisted 557 scheduled caste and 157 scheduled tribe families to acquire livestock assets and allied facilities to improve their living conditions.

Fodder Development

4.81 The Kerala Livestock Development and Milk Marketing Board produced 14.64 M.T. of improved variety of fodder and legume seeds through registered seed growers in the State. Demonstration of fodder production technology for the benefit of departmental and other agencies was also organised by the Board. The Department of Dairy Development supplied high yielding varieties of 2 M.T. of grass legume mixture to dairy farmers in the State. The Sewage Farm, Valiyathura continued its activities of fodder production to cater to the needs of the dairy farmers of Trivandrum City.

Milk Marketing

4.82 The Kerala Co-operative Milk Marketing Federation Ltd. registered 988 'Amul Pattern Co-operatives' till the end of the period of review. Out of this 613

are functional. The corresponding figures for the previous year was 692 and 676 respectively. The average daily milk procurement of the federation increased to 1,88,421 litres from 1,38,403 litres of the previous year, showing an increase of about 36%. The average daily milk supply to Dairies also showed substantial improvement. Two cattle feed plants with an average production of 1835 MT of cattle feed were functioning under the Federation, one at Malampuzha and another at Thuravoor (Alleppey district). Details of the input programme of the Federation for the period under review is shown in the Table No. 4.16.

Fisheries

Fisher-folk in Kerala

4.83 Fisheries provide sustenance to more than 9.11 lakh fisher-folk in the State. This comprises 7.06 lakhs (77.50 per cent) marine and 2.05 lakhs (22.50 per cent) inland fishermen. During the year under review, the percentage of population engaged in marine sector has marginally decreased from 77.52 per cent in the previous year to 77.50 per cent which in turn would mean a slight increase in the percentage of those in inland fishery. Of the total population about 17.23% is in the Alleppey District, compared to 17.19 per cent in the previous year. Trivandrum comes next with 16.57 per cent. The lowest number of fishermen is in Palghat district (480) Idukki district has no fishermen. District-wise details are given in Appendix 4.12.

4.84 The fishable area in Kerala consists of the continental shelf within 200 m. depth range spread over 39 lakh ha., and the inland water areas suitable for promotion of culture fisheries spread over 3.61 lakh ha. The share of marine fishable area in Kerala is only 8% of the total area available in India. As a result the percapita availability of area is only 10 ha. in Kerala, against 177 ha. in Gujarat and 37 ha. at the national level.

4.85 The resource potential in the continental shelf of Kerala is estimated to be of the order of 8 lakh tonnes per annum of which the inshore sea accounts for about 4 lakh tonnes. In the case of inland fishery, the potential is estimated to be of the order of 27,000 tonnes.

4.86 The pressure of both fishermen and fishing crafts on the sea is very high in Kerala. There are 1043 fishermen per 100 sq. km., whereas it is only 56 in Gujarat and 269 in the country as a whole. As regards fishing crafts, their number is on the increase, though there is no corresponding increase in the catch. As against 2961 mechanised crafts and country crafts in 1982 (marine and inland), there were 13,148 crafts in 1987. The total number of mechanised and non-mechanised crafts has increased from 29,232 in 1980/82 to 39,285 in 1987 which works out to an increase of 34 per cent. This over-crowded situation becomes worse when one considers the crafts from outside the State which come to Kerala coast for fishing. Category-wise details of crafts are given in the Table 4.17.

TABLE 4.17

Category-wise details of mechanised and non-mechanised Crafts (Inland and Marine)

Category	1980 (Nos.)	1987 (Nos.)
(1)	(2)	(3)
A. Mechanised Crafts (as on 1982)		
(i) Trawlers	2476	2510
(ii) Others	485	1038
Sub Total	2961	3548
Motorised Country Crafts		
(i) Plank-built	..	5869
(ii) Dagont	..	3496
(iii) Catamaram	..	235
Sub Total	..	9600
Total Mechanised	2961	13,148
B. Non-motorised		
(i) Plank-built	4376	7023
(ii) Dugont	10415	9165
(iii) Catamarams	11480	9949
Sub Total	26,271	26,137
Grand Total (A+B)	29,232	39,285

4.87 A glaring aspect in the fisheries sector in Kerala in recent years is the decreasing trend in fish landings. Fish production in 1987 went down to 3.05 lakh tonnes, from 3.64 lakh tonnes in 1986. Of this, the share of marine and inland sectors is 91.31 per cent and 8.69 per cent respectively. Marine and inland fish production from 1970 to 1987 are given in Table 4.18.

TABLE 4.18

Marine and Inland fish Production from 1970 to 1977 and from 1980 to 1987

Years	Marine	Inland	Total
1970	392880	8584	41468
1971	445347	17805	461352
1972	295618	16180	311798
1973	448269	17839	466108
1974	420257	23004	443531
1975	420836	23184	444020
1976	331047	23790	354837
1977	345037	23978	369015
1980	279543	25460	205003
1981	274395	25927	300322
1982	325795	26452	352247
1983	385275	27011	412286
1984	424718	27388	452105
1985	332503	28518	361021
1986	335856	28959	364815
1987	278573	26493	30506

4.88 It is seen that the share of marine sector has decreased from 92.31 per cent in 1986 to 91.31 per cent in 1987. As regards species, as in previous years, in 1987 also, oil sardine accounted for the major share with 48.15 per cent followed by prawn (8.26 per cent) and mackerel (6.57 per cent). Species-wise marine landings are shown in Appendix 4.13. The marine fishing industry consists of two sub sectors viz., the traditional sector and the mechanised sector. Of this, the traditional sector is the backbone of the industry. There was increase in the average beach price of all varieties of marine fishes. Species-wise details are given in appendix 4.14.

4.89 The inland fish production was 26,932 tonnes during 1987-88 against the landing of 28,194 tonnes during the previous year (-4.4 percent decrease). Details are given in Appendix 4.15. However, the share of inland fishing in relation to total fishing during this period is 8.69 per cent whereas it was only 7.69 per cent during the previous year. In other words the share of inland fish landing in the total catch is on the increase. This is encouraging.

4.90 The export of marine products from Kerala increased from 33,906 tonnes in 1986-87 to 35,576 tonnes (4.92 per cent) in 1987-88 valued at Rs. 18,394 lakhs. Similarly our national marine export increased from 85843 tonnes in 1986-87 to 97179 tonnes (13.20 per cent) valued at Rs. 53120 lakhs. Of the export products from Kerala and India during 1987-88, frozen shrimp constitute the major share (76 per cent and 57 per cent respectively). While frozen squids and frozen cuttle fish enjoyed second and third place in the State's level (9 per cent and 6 per cent), frozen fish occupied the second place at national level with 15 per cent. At the State the share of lobsters was the lowest, with 0.7 per cent and at the national level frozen clams had the lowest share with 0.5 per cent.

Other Programmes:

4.91 The Department had targetted a production of 52.25 lakh of fry/fingerlings in its seed farms at Malampuzha, Polachira, Pannivelichira and Parappanangadi and in the seed farms under the F.F.D.As at Trichur and Meenpara during the year under review. This target was exceeded as the department produced 52.70 lakh fry/fingerlings which were distributed to fish farmers, F.F.D.As., Co-operative societies etc. Under the F.F.D.A. Schemes some 639 farmers were registered and 358 farmers were given training and fingerlings were stocked in 595.46 ha. of ponds. In addition an area of 238.17 ha. in the non FFDA region was also brought under fish cultivation during the year under review. Ten reservoirs covering an area of 8642 ha. have been intensively stocked with about 73.39 lakhs of fry/fingerlings. Registered Harijan and Girijan Societies have been entrusted with the task of effective exploitation of fish in most of the reservoirs. Another important achievement is the completion of a macro level survey of brackish waters in the State. An area of 18838 ha. of brackish water areas suitable for fish/prawn culture has thus been identified.

4.92. Petrolling in back waters to prohibit illicit fishing and marine petrolling to ensure marine regulations envisaged under the Kerala

Marine Fisheries Regulations Act were continued with wider coverage.

4.93. Under the Special Component and Tribal Sub Plans, 3260 Scheduled Caste families and 524 Scheduled Tribe families were benefited.

4.94. The 8 Regional Fisheries Technical High Schools and 5 Fishermen Training Centres continued to function during the year under review and 64748 students enjoyed the benefit of educational concessions.

The Kerala State Co-operative Federation for Fisheries Development (Matsyafed)

4.95. The Matsyafed, established in 1984, is the Apex Federation of the 81 Fisheries Development Welfare Co-operative Societies in the State. The Federation is to organise the traditional fishermen into co-operatives for the overall development of the fisheries sector and the socio-economic development of the fishermen community. To enable this task, the erstwhile 222 welfare societies have been amalgamated and 81 Fisheries Development Welfare Co-operatives have been constituted. Details of fishermen Co-operatives are given in Appendix 4.16. The Kerala Fisheries Corporation was wound up and its activities transferred to the Federation. The activities of the Kerala Inland Fisheries Development Corporation and Kerala Fishermen Welfare Corporation had already been transferred to the Matsyafed.

4.96. The Integrated Fisheries Development Project Phases I & II, assisted by the N.C.D.C. is one of the major schemes implemented by the Federation. These Projects cost Rs. 555.84 lakhs and Rs. 1034.28 lakhs respectively. They will help the target groups to own production inputs such as crafts, gear and outboard motors and will also organise marketing of fish produced by them. Phase I Project is targeted to benefit 541 beneficiary groups in the 15 selected villages, 5 each in the districts of Cannanore, Ernakulam and Trivandrum. Similarly, Phase II of the project is being implemented in the 32 selected villages in the districts of Trivandrum, Kullion, Alleppey, Trichur, Malappuram, Calicut and Kasaragod. The target is 820 beneficiary groups. In Phase I 403 beneficiary groups have so far been benefited. The financial achievements of Phase I and II are Rs. 293.17 lakhs and Rs. 188.02 lakhs respectively. Details are given in Appendix 4.17. Another important programme implemented by Matsyafed is the housing scheme. During the year under review, the Federation implemented the 3rd phase in which construction of 10,000 houses was targeted. Of this, construction of 5162 houses in different districts was completed by the end of December 1988.

Harbour Engineering

4.97. The Harbour Engineering Department formed in 1982 undertakes the works related to construction and maintenance of fishing harbours, fish landing centres for traditional

fishermen, fish landing centres for mechanised boats, fish farms, hatcheries, ice plants, peeling sheds etc., for the fisheries department.

4.98. The Central and State Government have accorded sanction for the construction and development of five fishing harbours, 10 fish landing centres for mechanised boats and 6 fish landing Centres for traditional fishermen. Of these, the fishing harbour at Neendakara and 3 fish landing centres for mechanised boats at Kalaragod, Neeleswaram and Munakkakadavu have been completed. Further details are given in Appendix 4.18.

Kerala Fishermen Welfare Fund Board

4.99. The Kerala Fishermen Welfare Fund Board constituted in 1986 under the Kerala Fishermen Welfare Fund Act, 1985, is implementing various welfare schemes for fishermen and their families. These welfare schemes include group insurance, old age pension, assistance to disabled fishermen, assistance for the marriage of fishermen's daughters, assistance to families against death of fishermen during fishing, insurance against damage of instruments, houses etc.

4.100. The Board has since its inception disbursed an amount of Rs. 801.13 lakhs towards old age pension to 17,511 fishermen. It has given Rs. 27.23 lakhs by way of Group Insurance assistance to 186 beneficiaries, and has also extended assistance for the marriage of 478 Fishermen's daughters by giving Rs. 1.49 lakhs as loan and Rs. 0.94 lakh as ex-gratia. However implementation of this scheme is kept in abeyance from 4/88. Details of physical and financial achievements under major programmes are given in Appendix 4.19.

Central Institute of Fisheries Technology

4.101. The Central Institute of Fisheries Technology, under the Department of Agriculture, Government of India, established in 1957 with its headquarters at Cochin, is the only National Centre in the country, where research investigations are undertaken in all disciplines of fishing and fish processing. The institute has also six research centres in different states of the country including Kerala. The various activities of the institute under the re-organised set up from February 1988, are being carried out by the following Divisions.

- (i) Fishing Technology,
- (ii) Fish Processing,
- (iii) Biochemistry,
- (iv) Nutrition and Microbiology,
- (v) Engineering and Instrumentation; and
- (vi) Extension, Information and Statistics.

4.102. These Divisions continued to maintain, steady progress in the various research and relative activities undertaken by the institute

during 1987-88. During this period several innovations were made and large scale trials conducted under diverse field conditions. The institute provides technical guidance and information, pertaining to fisheries sector, to the Central and State Fisheries Departments and the fishing industry in general.

Forests

A. General Forestry

4.103. The total area under forest in the State marked slight increase over the previous year from 11,22,320 ha. as on 31-3-1987 to 11,22,520 ha. as on 31-3-1988 (0.02 per cent). This works out to 28.89 per cent of the geographical area of the State. Of this, the area under reserve forest forms 81.54 per cent, followed by vested forests (16.82%); and area proposed for reserve forests (1.64%). Division-wise details of forest area are given in Appendix—4.20.

4.104. The area under forest plantations in the State marked a decrease during the year under review. Against the area of 1,60,370 ha. as on 31-3-1987, it was only 1,55,337 ha. as on 31-3-1988, a decrease of 3.1%. Under plantations, teak has the major share with 50.58%, followed by eucalyptus (21.88%), mixed plantations (11.48%), soft wood (6.89%) and others (9.17%). Plantation-wise details are given in Appendix-4.21.

4.105. The major forest produce comprise timber, firewood, charcoal, bamboo, sandalwood etc. While production of Sandalwood, bamboo, reeds and cardamom marked an increase over the previous year, production of timber items, firewood and charcoal declined. This decrease is glaring in round log timber, with 56% deduction followed by firewood with 53%. This decreasing trend is due to the policy of selective felling in recent years. Details of forest produce are furnished in Appendix-4.22.

4.106. The revenue earnings from forestry sector include sale proceeds of the produce and other receipts like interest on forest revenue. The net revenue from forestry during 1987-88 was Rs. 4019.43 lakhs, against Rs. 4818.20 lakhs during the previous year which marks a decline of 16.58%. This fall in forest revenue is also a result of selective felling. Item-wise details of revenue from forest produce are given in Appendix—4.23.

B. Social Forestry

4.107. Under the World Bank assisted social forestry programme, plantations were raised in 3249 ha. of lands. Similarly, under farm forestry 697 lakhs of seedlings were distributed among the public, free of cost. Besides, 242.9 lakhs of seedlings were produced for departmental use. Of the other components of the World Bank assisted programme, special mention is to be made on the wide range of Civil works about 164 construction works undertaken

for different purposes. In addition, about 217 vehicles of different types and categories were also procured. Under the Centrally Sponsored Rural fuel wood scheme, an amount of Rs. 61.82 lakhs was spent for raising plantations in 723.48 ha. of lands. Under the National Rural Employment Programme (NREP) though a sum of Rs. 280.50 lakhs was released by the Rural Development Department only an amount of Rs. 253.72 lakhs could be spent. Similarly under the 100 per cent Centrally Sponsored RLEGP, though an amount of Rs. 130.76 lakhs was sanctioned, only an amount of Rs. 36.98 lakhs could be spent due to operational difficulties. Further details are furnished in Appendix—4.24.

C. Wild Life Development

4.108. The two National Parks and 12 Wild Life Sanctuaries in the State cover an area of 2249.72 sq. kms., which forms about 24 per cent of the total forest area, or 5.78 per cent of the total geographical area of the State. The developmental activities undertaken during 1987-88 include, survey, demarcation and consolidation of boundaries, improvement of habitats and communication system, construction of office buildings, quarters, roads, fire protection works etc. In the different sanctuaries and national parks, boundary survey works could be completed over a distance of 262 kms. Similarly, erection of 3727 permanent cairns, fire protection lines over a distance of 1725 kms., power fencing covering a distance of 33.7 kms., formation of 139 kms. of roads, besides maintenance and improvement of 401 kms. of roads and paths, construction of 4 check dams, afforestation in 388 ha. of lands and planting of 23,750 bamboos could also be done so far. Though quite a large number of construction works of office buildings, quarters for both officers and staff was started much earlier, works on 20 office buildings, 82 quarters and 8 sheds could only be completed. Sanctuary-wise details of achievements under selected programmes are given in Appendix—4.25.

D. Kerala Forest Research Institute

4.109. The Kerala Forest Research Institute established in 1975, conducts research in forestry and related disciplines. The Institute gives primary importance to problem-solving research on plantation forestry, which is a major economic activity. The objective behind this thrust is to increase the productivity of plantations. Attention is also given for developing appropriate methods and techniques of management of natural forests for ensuring sustained yield. Development of techniques for more efficient utilisation of the available timber, so as to offset the increasing pressure on the decreasing forest resources of the State is also an important area of applied research of the Institute.

4.110. During 1987-88, the Institute completed six projects and there are 21 ongoing projects. The research works are being carried

out by utilising State Government grants and specific funding from other sources which include Government of India and other National and International Organisations. Since its inception, the Institute has received a total amount of Rs. 621.79 lakhs from different sources, details of which are given in the following Table.

TABLE 4.19

Details of funds received by the Forest Research Institute from 7/75 to 3/88

Particulars	Amount (Rs. lakhs)
Government of Kerala (grants)	581.47
Project-specific funding from F A O	2.73
Kerala Forest Department	4.85
Department of Science and Technology	1.01
Department of Environment	16.89
Hindustan Paper Corporation	0.00
Gwalior Rayons	0.15
Coconut Development Board	0.50
Ford Foundation	2.86
International Development Research Centre, Canada	11.22
Total	621.79

Western Ghat Development Programme

4.111. The Western Ghat Development Programme includes mainly 19 ongoing watersheds schemes in Kerala. The various programmes are of an integrated nature involving soil conservation, minor irrigation, agriculture development, pasture development, afforestation and drinking water supply programmes.

4.112. Under soil and water conservation the achievement upto the end of 1987-88 comes to 4305 ha. This represented about 60% of the target. Under pasture development 56% of the target could be achieved. Fish culture and rearing operations in the sphere of Fisheries Development introduced at Peruvannamuzhy reservoir by a co-operative society with 450 scheduled caste members is expected to provide employment to SC population of the locality. Sericulture programme introduced in Pambar and Vattavada watersheds in Idukki district envisages the development of bivoltine sericulture by utilising the erosion prone waste lands and water resources in the watershed area for mulberry cultivation. The scheme helps to generate additional income to the poor farmers of the area most of whom are SCs, STs, Small and Marginal Farmers. Under forest consolidation, by erecting permanent cairns and prevention of encroachment only 42% of the physical target would be covered by the end of 1987-88. The various schemes coming under eco-preservation of forests have recorded satisfactory achievement. Under the new scheme for development

of heterogeneous forest vegetation by profuse mixed seeding technique, a heterogeneous group or compatible forest species has been raised, thereby promoting eco-restoration of the locality. It is proposed to cover 125 ha. under this scheme during 1988-89. Fire line tracing was completed in 1547 km. during 1987-88 under the scheme for conservation and protection of forests. The scheme 'establishment of an Arboretum in Western Ghats' aims at establishment of a gene pool of tropical trees and shrubs including those on the verge of extinction, testing the suitability of introduced species and establishment of a modern nursery. It is reported that the scheme is showing good progress. Apart from these, minor irrigation works, drinking water supply programmes, and construction of foot bridges were undertaken in the selected watershed areas. Further water harvesting, soil conservation and afforestation scheme of the spices Board in Udumbanchola taluk of Idukki district was supported under the Western Ghat Development Programme.

Agricultural Research

4.113. Kerala Agricultural University, Central Plantation Crops Research Institute, Central Tuber Research Institute and Indian Cardamom Research Institute are the important agencies engaged in agricultural research in the State. The KAU has twenty agricultural research stations located in different agro-climatic areas growing assorted types of crops. With the launching of the National Agricultural Research Project (NARP), the State has been divided into five agro-climatic regions. Research support for the Veterinary and Animal Sciences is being provided by five instructional-cum-research farms and the fisheries sector supported by two instructional-cum-research farms.

4.114. During the seventh plan period a total number of 32 All India Co-ordinated Research Projects (ICAR), 2 operational research projects, 19 cess fund projects and 12 ICAR ad hoc schemes were sanctioned for implementation by the University. During the period 10 All India Co-ordinated Projects and 5 ad hoc schemes were successfully completed. The NARP Sub Projects of southern central and special regions under phase I started in 1980-81 were also completed.

4.115. The important research high lights reported by the various agencies are given below:

Kerala Agricultural University

4.116. During the seventh plan period the Kerala Agricultural University has released ten varieties of rice, three varieties of groundnut, five varieties of cashew, two varieties of sesamum, one variety each of cowpea, green grams, blackgram, brinjal, tomato and coconut.

4.117. Technologies developed for rice include optimum proportion of viruppu and mundakan seed for Kootumundakan system of cultivation

control of weeds with Benthicarb in kole lands, seed treatment with fungicide "Fongorem 50 WP" at 4 g/kg of seed for protection against blast, standardisation of fertilizer dose for kole lands, control of wild rice in Kuttanad by application of calcium peroxide and evolution of sub soil drainage system for Karilands.

4.118. In coconut the hybrid LO × GB was release as Laksha Ganga, control of coreid bug with 0.2 per cent carbaryl was suggested, management practices for root wilt affected coconut palms were recommended.

4.119. In vegetables and tuber crops tomato variety LE-79 (shakthi) was found resistant to three isolates of bacterial wilt disease, two chilli varieties Jwala Mukhi (ACV-C-1) and Jwala Sakhi (ACV-C-2) and CM-14 (pumpkin) were approved for release.

4.120. Foliar application of 4 per cent area in and 1 per cent copper sulphate in Palmarosa gave high leaf and oil output without affecting the quality of oil.

4.121. The mutant clone (ACV-F-1 Haritha) was approved for release for cultivation as a forage crop in sandy loams soils of the coastal belt of Kerala.

4.122. Five Cashew varieties BHA-139 a BLA-3a-4, NDR-2-1, K-22-1 and H-3-7 were released under All India coordinated Cashew improvement project. Cashew hybrids 856, 1602 and 1610 were found very promising with respect to yield and grade of Kernel.

4.123. A promising type of Cardamom (PV-1) was identified. In Veterinary and Animal Sciences a new vaccine strain against New cattle disease in poultry was evolved. The prevalence of IBD infection in chicken was first identified in Kerala State and its pathogenesis and Pathological features described. Vaccination against the disease was recommended. One of the strain crosses in poultry developed at the poultry Breeding Centre, Mannuthy performed exceedingly well in four generations at the Anand Testing Centre of ICAR.

4.124. In fisheries, breeding and hatchery development of important ornamental fishes viz., gold fish, angel fish and Zebra fish was achieved.

Central Plantation Crops Research Institute

4.125. The CPCRI conducts and co-ordinates research on coconut, oil palms, arecanut, cocoa and also on small holder plantation crops based farming systems with major thrust on crop improvement, crop management and crop protection.

Central Tuber Crops Research Institute

4.126. Nine improved varieties of tuber crops recommended for release during 1987 have been formally released during the year. Ten superior top cross hybrids with high yield, cooking quality and compact plant type were identified.

A Sweet Potato clone S-223 was found to have high field resistance to Sweet Potato Weevil. It has other desirable qualities like high yield, tuber shape and cooking quality. In *Dioscorea rotundata* dwarf plant types which do not require staking (support) were isolated.

Agricultural Education

4.127. Kerala Agricultural University imparts education on various disciplines of Agriculture and allied sectors through 8 colleges namely College of Agriculture, Vellayani; College of Horticulture, Vellanikkara; College of Veterinary and Animal Sciences, Mannuthy; College of Forestry, Vellanikkara; College of Co-operation and Banking, Mannuthy; Kelappaji College of Agricultural Engineering and Technology, Tavanur; College of Fisheries, Panangad and College of Rural Home Science, Vellayani. The total number of students on rolls in different colleges under the university as on 31-12-1988 was 2,110.

Kerala Kera Karshaka Sahakarana Federation

4.128. With a view to organise the coconut growers on co-operative lines for augmenting their income through improved productivity and value additions, the Kerala Kera Karshaka Sahakarana Federation was established in 1987. The Federation is to establish an integrated system for production, procurement, processing and marketing of coconut and its products in Kerala under N.C.D.C./E.E.C. assisted project. Production and procurement operations will be organised through 900 selected Primary Agricultural Credit Societies who will be enrolled as members of the Federation. Processing support would be provided by establishing 3 large processing plants one each in the three regions. The first phase of the project has already commenced in the Southern region covering Trivandrum, Quilon, Pathanamthitta and Alleppey districts. Selected PACS (300) for implementing the programme in the region have already been enrolled as members of the Federation. Production enhancement activities are being organised through 13 mobile teams (7 in southern region and 6 in northern region). Site for the processing complex for the southern region has been secured in Karunagapally in Quilon District and civil work is in progress. As part of the extension support 300 coconut demonstration plots were laid out in farmers' fields at the rate of one in each PACS area, and 313 Seminars-cum-training camps were organised involving 17548 coconut growers.

4.129. Against the total project cost of Rs. 82.03 crores N.C.D.S. has released 2.64 crores upto the end of 1988.

Kerala Land Development Corporation

4.130. The major projects namely Kuttanad Development and Trichur Kole were more or less at a stand still during the year 1988 due to the discontinuance of financial assistance by NABARD/State Bank of India. The Trichur Kole project envisages construction of submersible bunds benefiting 15,500 ha. to raise an addi-

tional crop. Against 711 kms. of bunds to be constructed under the Kuttanad Project, 539 km. have been completed.

The Plantation Corporation of Kerala

4.131. Plantation Corporation of Kerala Limited is the largest public sector undertaking in the plantation sector of the State. There are eight rubber estates and four casnew estates under the ownership of the Corporation. They are located in Pathanamthitta, Ernakulam, Trichur, Malappuram, Kozhikode, Kasaragod and Palghat districts. The latex, produced by the company is processed into various forms viz. Centrifuged latex, crumb rubber and crape in the factories at Kodumon group, Kalady group and Perambra estates of the Corporation. Production of rubber in the year 1987-88 in the estates of the Corporation was 6643.21 M. T. with total sale receipts of Rs. 1360.72 lakhs. This is in addition to Rs. 107.96 lakhs earned from sale of cashew.

Kerala Agro Machinery Corporation

4.132. The Company manufactures and sells power tillers. Production during 1987-88 was 2100 numbers representing 70 per cent capacity utilization.

Table 4.1

Season-wise percentage Departure of Rainfall in Kerala from Normal (During 1981 to 1988)

Sl.No.	Year	Percentage of Rainfall (%)		
		Summer	South West Monsoon	North East Monsoon
	(1)	(2)	(3)	(4)
1.	1981	-28	+23	-17
2.	1982	-44	-18	-43
3.	1983	-73	-2	-33
4.	1984	-15	-13	-36
5.	1985	-9	-17	-26
6.	1986	-51	-21	-20
7.	1987	-49	-31	+30
8.	1988	-8	-1	-54

Table 4.2

Average Monthly Rainfall in Kerala (in.M.M)

Month	Average Monthly Rainfall			
	Normal	1985-86	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)
July	706.4	424.1	318.2	187.8
August	548.8	293.2	349.7	394.2
September	250.7	132.3	261.7	150.7
October	292.4	190.9	156.3	261.2
November	196.6	82.6	200.8	214.3
December	39.9	52.3	8.9	91.6
January	13.0	4.1	0.3	26.0
February	16.0	15.0	0.7	21.3
March	35.2	5.3	3.5	40.7
April	107.4	65.3	37.6	178.7
May	215.0	122.7	118.8	158.2
June	629.4	264.4	559.0	529.5
Total	2960.8	1652.2	2035.5	2254.2

Table 4.3
Land Use Pattern in Kerala

Classification of land	(Area in Ha.)						
	1984-85	1985-86		1986-87		Change in	
		Actual	Per cent	Actual	Per cent	area between 1985-86 & 1986-87	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Total Geographical Area	3885497	3885497	100.00	3885497	100.00	..	..
2. Forests	1081509	1081509	27.83	1081509	27.83	..	..
3. Land put to non-agricultural uses	279703	278601	7.17	263017	6.77	(-)15584	(-)5.59
4. Barren & Uncultivable Land	85688	83107	2.14	82343	2.12	(-) 764	(-)0.92
5. Permanent Pastures and grazing land	4158	4223	0.11	3711	0.095	(-) 512	(-)12.12
6. Land under miscellaneous tree crops	51039	50228	1.29	46614	1.19	(-)3614	(-)7.19
7. Cultivable Waste Land	130098	125559	3.23	129582	3.33	(+)4023	(+)3.20
8. Fallow (other than current fallow)	27221	28038	0.72	27727	0.71	(-)311	(-)1.11
9. Current fallow	41758	43247	1.11	44258	1.14	(+) 1011	(+)2.34
10. Net area sown	2184423	2190985	56.39	2206736	56.79	(+)15751	(+)0.72
11. Area sown more than once	690220	676567	17.39	663578	17.08	(-)11989	(-)1.77
12. Total Cropped area	2874643	2866552	73.78	2870314	73.87	(+)3762	(+)0.13
13. Cropping intensity			131.59		130.07		

Table 4.4
Area Production and Productivity of Principal Crops in Kerala (Area in Ha., Production in tonnes and Productivity in Kg./Ha.)

Crops	Area				Production				Productivity			
	1986-87	1987-88	Changes over the previous year	Per cent	1986-87	1987-88	Changes over the previous year	Per cent	1986-87	1987-88	Changes over the previous year	Per cent
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Rice	663803	604082	(-)59721	(-)8.99	1133786	1032585	(-)101201	(-)8.93	1708	1709	(+)	1(+0.06)
2. Jowar	2040	1373	(-)667	(-)32.69	1030	678	(-)352	(-)34.17	505	494	(-)11	(-)2.37
3. Ragi	1170	893	(-)277	(-)23.68	965	741	(-)224	(-)23.21	825	830	(+)	5(+0.61)
4. Other Small millets	3648	2150	(-)1498	(-)41.06	2759	1442	(-)1317	(-)47.73	756	671	(-)85	(-)11.24
5. Other pulses & Tur	27901	27422	(-)479	(-)1.72	20062	19444	(-)618	(-)3.08	719	709	(-)10	(-)1.39
6. Sugar cane	8827	7798	(-)1029	(-)11.65	57883	42176	(-)15707	(-)27.13	6557	5408	(-)1149	(-)17.5
7. Pepper	128865	N.A.			30378	N.A.			236			
8. Ginger	16591	15410	(-)1181	(-)7.12	47652	42976	(-)4676	(-)9.81	2872	2789	(-)83	(-)2.89
9. Turmeric	3226	3166	(-)60	(-)1.86	6259	6161	(-)98	(-)1.56	1940	1946	(+)	6(+0.31)
10. Cardamom	62740	64627	(+)1887	(+)3.01	2500	2050	(-)450	(-)18.00	40	32	(-)8	(-)20.0
11. Betelnuts	57734	60028	(+)2294	(+)3.97	53207	55384	(+)2177	(+)4.09	921	923	(+)	2(+0.22)
12. Banana	18724	18608	(-)116	(-)0.62	219104	218866	(-)238	(-)0.11	11701	11762	(+)	61(+0.52)
13. Other plantation	34554	34380	(-)174	(-)0.50	143235	142968	(-)267	(-)0.18	4145	4158	(+)	13(+0.32)
14. Cashewnut	133562	144478	(+)10916	(+)8.17	88710	71690	(-)17020	(-)19.18	664	496	(-)168	(-)25.30
15. Tapioca	192878	179258	(-)13620	(-)7.06	3292302	3181232	(-)111070	(-)3.37	17069	17747	(+)	678(+3.97)
16. Sweet potato	3996	4001	(+)	(+)0.12	33270	33851	(+)581	(+)1.74	8326	8461	(+)	135(+1.62)
17. Groundnut	12416	9456	(-)2960	(-)23.84	5796	4689	(-)1107	(-)19.10	467	496	(+)	29(+6.21)
18. Sesamum	14200	13050	(-)1150	(-)8.09	9407	3159	(-)248	(-)7.28	240	242	(+)	2(+0.83)
19. Coconut	706107	N.A.			3173	N.A.			4494			
20. Cotton	5265	5727	(+)462	(+)8.77	1530	1403	(-)127	(-)8.30	290	245	(-)45	(-)15.52
21. Cocoa	14978	N.A.			6086	N.A.			403			
22. Tea	34639				50335				1453			
23. Coffee	65641				23550				359			
24. Rubber	347814				202129				581			

Table 4.5
Index of Area, Production and Productivity of Crops in Kerala
 Base Year: Average of Triennium ending 1979-80

Items	Area			Production			Productivity		
	Average of 3 years 1976-77 to 1978-79	1986-87	1987-88	Average of 3 years 1976-77 to 1978-79	1986-87	1987-88	Average of 3 years 1976-77 to 1978-79	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All Crops (A+B)	101.48	99.17	96.24	100.17	85.42	81.94	98.71	85.87	84.54
A. Food Grains (1+2)	102.55	81.16	74.61	98.67	88.56	80.67	96.22	107.87	107.87
1. Cereals	102.59	82.13	74.52	98.85	88.08	80.11	96.35	107.26	107.52
2. Pulses	101.53	78.09	76.75	87.06	108.59	105.25	85.75	139.07	137.14
B. Non-food Grains (3 to 8)	101.00	107.46	107.21	100.52	84.73	82.26	99.52	78.86	76.74
3. Oil seeds	101.66	105.24	104.64	103.48	100.54	100.31	101.79	95.45	95.89
4. Plantation crops	95.04	145.69	145.69	93.84	132.39	132.39	98.74	90.90	90.90
5. Condi—ents and spices	100.65	113.40	114.72	89.40	114.49	112.15	88.82	100.97	97.67
6. Drugs and Narcotics	82.29	108.03	107.71	89.57	97.63	96.79	108.85	90.38	89.83
7. Fruits and Vegetables	103.20	86.71	86.11	105.94	80.21	77.77	102.65	92.50	90.18
8. Miscellaneous crops	103.59	108.85	104.47	98.02	124.12	91.17	94.62	114.00	87.27

Table 4.6
Area, Production and Yield of Rice in Kerala (Area in Ha. Production in tonnes and productivity in kg/ha.)

Season	Area				Production				Yield			
	1986-87	1987-88	Change over the previous year	Per cent	1986-87	1987-88	Change over the previous year	Per cent	1986-87	1987-88	Change over the previous year	Per cent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Virippu-Autmun	286569	240445	(-)46124	(-)16.09	468409	420343	(-)48066	(-)10.26	1635	1748	(+)113	(+)6.91
Mundakan-Winter	297068	293891	(-)3177	(-)1.07	496623	470308	(-)26315	(-)5.30	1672	1600	(-)72	(-)4.31
Funja-Summer	80166	69746	(-)10420	(-)13.00	168754	141934	(-)26820	(-)15.89	2105	2035	(-)70	(-)3.32
Total	663803	604082	(-)59721	(-)8.99	1133786	1032585	(-)101201	(-)8.92	1708	1709	(+)1	(+)0.06

Table 4.7
High Yielding Varieties of Rice in Kerala

Seasons	1983-84	1984-85	1985-86	1986-87	1987-88	Percentage Proportion of HYV to total rice (Per cent)	
						Percentage change between 1986-87 and 1987-88	1986-87 1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) (9)
<i>Area in ha.</i>							
Virippu	101810	112400	83782	80076	54760	(-)31.61	27.94 22.77
Mundakan	62063	63687	40650	44604	33763	(-)24.30	15.01 11.49
Punja	48477	44452	38846	41253	31311	(-)24.10	51.46 44.89
Total	212350	220539	163278	165933	119744	(-)27.83	24.99 19.82
<i>Production in Tonnes</i>							
Virippu	198235	233235	157225	142825	106653	(-)25.33	30.49 25.37
Mundakan	126129	122354	83489	92085	66597	(-)27.68	18.54 14.16
Punja	106048	98254	102479	101757	75212	(-)26.09	60.30 52.99
Total	430412	453843	343193	336667	248462	(-)26.20	29.69 24.06
<i>Average yield in kg./ha.</i>							
Virippu	1947	2075	1876	1784	1948	(+)9.19	104.69 111.44
Mundakan	2032	1921	2054	2065	1972	(-)4.50	123.50 123.25
Punja	2188	2210	2638	2467	2402	(-)2.63	117.19 118.03
Total	2027	2058	2102	2029	2075	(+)2.27	118.79 121.42

Table 4.8

Area, Production & Productivity of Rice in Kerala (District-wise)

(Area in Ha. Production in Tonnes & Productivity in Kg./Ha.)

District	Area				Production				Productivity			
	1986-87	1987-88	Change over the previous year	Percentage	1986-87	1987-88	Change over the previous year	Percentage	1986-87	1987-88	Change over the previous year	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	25444	23300	(-)2144	(-)8.43	43600	36577	(-)7023	(-)16.12	1714	1570	(-)144	(-)8.40
Quilon	32824	30227	(-)2597	(-)7.91	54791	53496	(-)1295	(-)2.36	1669	1770	(+)101	(-)6.50
Pathanamthitta	13130	14102	(+)972	(+)7.40	24456	33490	(+)9034	(+)36.94	1863	2375	(+)512	(+)27.48
Alleppey	67838	60763	(-)7075	(-)10.43	117799	123122	(+)5323	(+)4.52	1736	2026	(+)290	(+)16.71
Kottayam	33603	29854	(-)3749	(-)11.16	67907	66042	(-)1865	(-)2.75	2021	2212	(+)191	(+)9.45
Idukki	7085	5368	(-)1717	(-)24.23	14962	10657	(-)4305	(-)28.77	2112	1985	(-)127	(-)6.01
Ernakulam	80817	79818	(-)999	(-)1.24	131063	119810	(-)11253	(-)8.59	1622	1501	(-)121	(-)7.46
Trichur	89527	84176	(-)5351	(-)5.98	143297	130887	(-)12410	(-)8.66	1601	1555	(-)46	(-)2.87
Palghat	154864	144665	(-)10199	(-)6.59	290976	266049	(-)24927	(-)8.57	1879	1839	(-)40	(-)2.12
Malappuram	62308	56471	(-)5837	(-)9.37	95684	79021	(-)16663	(-)17.42	1536	1399	(-)137	(-)8.91
Kozhikode	18123	15580	(-)2543	(-)14.03	19988	15996	(-)3992	(-)19.97	1103	1027	(-)76	(-)6.89
Wayanad	29999	21299	(-)8700	(-)29.00	57718	36261	(-)21457	(-)37.17	1924	1702	(-)222	(-)11.58
Cananore	26961	22505	(-)4456	(-)16.53	38683	33606	(-)5077	(-)13.12	1483	1493	(+)10	(+)10.67
Kasaragod	21280	15954	(-)5326	(-)25.03	32862	27571	(-)5291	(-)16.10	1544	1728	(+)184	(+)11.92
State	663803	604082	(-)59721	(-)8.99	1133786	1032585	(-)101201	(-)8.92	1708	1709	(+)1	(+)0.06

Table 4.9

Share of Kerala in Area and Production of Important Crops Grown in the State

Sl. No.	Name of Crop	Area in lakh ha.				Production lakh tonnes			
		1985-86		1986-87		1985-86		1986-87	
(1)		India	Kerala	India	Kerala	India	Kerala	India	Kerala
		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Rice	411.37	6.78	407.74	6.64	638.25	11.73	604.16	11.34
2.	Sugarcane	28.49	0.07	30.55	0.09	1706.48	0.43	1824.80	0.58
3.	Coconut	12.26	7.05	12.30	7.06	6770.30*	3377	6404.40*	3173
4.	Pepper	1.25	1.22	1.37	1.23	0.34	0.33	0.33	0.30
5.	Ginger	0.54	0.16	0.53	0.17	1.38	0.34	1.27	0.48
6.	Turmeric	1.09	0.03	1.03	0.03	3.67	0.06	2.81	0.06
7.	Cardamom	1.18	0.60	1.17	0.63	0.10	0.03	0.09	0.03
8.	Areca nut	1.86	0.89	1.76	0.58	2.16	0.54	2.09	0.59
9.	Banana	3.04	0.53	2.82	0.53	53.90	3.61	46.08	3.62
10.	Sweet Potato	1.75	0.05	1.76	0.04	14.08	0.41	14.53	0.33
11.	Tapioca	2.76	2.03	2.06	1.93	48.84	32.77	35.75	32.92
12.	Rubber	3.69	3.27	3.98	3.48	2.00	1.84	2.35	2.02
13.	Coffee	N.A.	0.66	N.A.	0.66	1.22	0.24	N.A.	0.24
14.	Tea (1985 & 1986)	3.99	0.35	N.A.	0.35	6.56	0.53	6.25	0.50

*M. Muts.

Table 4.10

Monthly Average Price of RMA-4 Grade
Rubber per quintal in Kottayam Market

Month	1985-86	1986-87	1987-88
(1)	(2)	(3)	(4)
April	1608	1734	1816
May	1729	1738	1847
June	1723	1680	1821
July	1746	1669	1860
August	1775	1686	1816
September	1781	1605	1750
October	1785	1584	1753
November	1772	1591	1746
December	1716	1598	1743
January	1729	1633	1788
February	1694	1675	1778
March	1726	1729	1768
Average	1732	1660	1791

Table 4.11

Month-wise Export Price of Cardamom

Unit Value Realisation (Rs. /Kg.)

Month	1986-87	1987-88
(1)	(2)	(3)
April	134.54	118.60
May	137.61	108.94
June	129.73	143.19
July	118.06	120.06
August	104.94	132.40
September	74.85	132.34
October	137.16	135.00
November	143.20	125.71
December	133.67	121.88
January	114.93	100.00
February	144.05	120.00
March	No. auction.	
	127.89	121.80

(Source: Spices Board)

Table 4.12
Selected Indicators of Agricultural Development

Programme	Unit	1986-87	1987-88
(1)	(2)	(3)	(4)
1. Fertiliser Consumption			
(a) Nitrogen	Tonnes	60783	70730
(b) Phosphorus	"	35857	49350
(c) Potash	"	54723	62410
Total	"	151363	182490
2. Plant Protection:			
(a) Seeds Treated	'000 tonnes	4300	2618
(b) Area under Seed treatment	Lakh ha.	0.541	0.374
(c) Fungicides Liquid+solid (in terms of Technical grade)	Tonnes	536.45	468.81
(d) Insecticides—Liquid+solid (in terms of Technical grade)	"	472.15	556.54
(e) Weedicides (in terms of Technical grade)	"	24.35	25.73
(f) Rodenticides	"	6.50	7.92
(g) Area under plant protection coverage	Lakh ha.	6.158	5.366
(h) Rodent control operation	"	0.913	1.784
(i) Biological control of <i>Nephantis serinona</i> parasites liberated	Lakh Nos.	242.236	177.266
(j) Weed control	" ha.	1.333	1.578
(k) Trees sprayed for control of coconut leaf diseases	" No.	33.918	9.972
(l) P. P. equipments distributed	No.	691	845
3. High Yielding Seeds:			
(a) HYV seeds of paddy distributed from State Seed Farms and other Govt. Agencies	Tonnes	2691.21	2450.22
(b) Coverage of HYV including natural spread	Lakh ha.	1.65	1.20
4. Quality planting materials distributed:			
(a) Coconut seedling	Lakh No.	18.918	13.82
(i) West Coast Tall	"	17.823	13.43
(ii) T x D Hybrid	"	0.468	0.30
(iii) D x T Hybrid	"	0.627	0.09
(b) Rooted Pepper cuttings	"		
(i) Panniyoor-I	"	5.18	4.98
(ii) Other varieties	"	14.92	12.58
(c) Cashew layers	"	0.01	0.01
(d) Cashew seedlings	"	1.22	..
(e) Nutmeg seedlings	"	0.23	0.05
(f) Clove seedlings	"	0.11	0.56

	1	2	3	4
5. T & V Programme:				
(a) Fortnightly training	Nos.	936	936	
(b) Monthly workshop	"	169	169	
(c) Office-cum-residential quarters	"			
(d) Agricultural officers	"	19	..	
(e) Agricultural demonstrators	"	113	..	
6. Vegetable Programme:				
(a) No. of Krishi Bhavans involved		33	815	
(b) Area cultivated				
(c) Vegetables produced procured and distributed	MT	2500	6117	
(d) No. of kits distributed	Lakh No.	0.50	5.00	
7. Soil testing:				
(a) Soil samples collected	Nos.	193875	235427	
(b) Soil samples analysed	"	183405	204505	
8. Short term loans				
Amount distributed through KSCB	Rs. lakhs	200.01	400.00(x)	
9. Cashew plantation scheme:				
(a) Area covered	ha.	740	409	
(b) Amount disbursed as subsidy	Rs. lakhs.	9.45	4.641	
10. Small & Marginal Farmers Programme:				
Nos. of minikits distributed				
(a) Pulses (4 kg. kits)		69554	73686	
(b) Oil seeds—Sesamum (1kg. kit)		41811	21345	
(c) Coconut seedlings		102062	74074	
(d) Groundnut (30 kg kit)		320	2663	
11. Pulses development:				
(a) Pulses seeds distributed	kg.	3200	3980	
(b) Fertilizer distributed under subsidy for promoting pulses cultivation—rhizobium	Packets	4706	7651	
(c) Demonstrations organised	No.	800	845	
12. Bio-gas development				
(a) Bio-gas units constructed	No.	2072	1789	
(b) Subsidy disbursed	Rs. lakhs	77.014	73.714	
13. Coconut Development Programmes				
Pumbsets distributed	No.	1180	700	
14. Spices Development Programme:				
Panniyur I cuttings	Lakhs		4.89	
Input kits distributed	Nos.	..	43195	
Sprayers distributed	"	..	95	
Clove seedlings distributed	"	..	33126	
Nutmeg	"	..	2408	
Rehabilitation of pepper gardens	ha.		500	

Table 4.13

Scheme-Loans advanced by the Kerala State Co-operative Agricultural Development Bank at Primary Level during the last two co-operative years.

Sl.No.	Scheme (1)	(Rs. in lakhs)	
		1986-87 (2)	1987-88 (3)
1.	Minor Irrigation	525.89	511.48
2.	Agricultural Machinery	193.01	228.65
3.	Plantation	908.92	1007.08
4.	Dairy	48.83	90.89
5.	Poultry	52.36	63.37
6.	Fisheries	19.66	21.16
7.	Goat Development	6.19	4.02
8.	Coconut and Fish culture	21.84	1.49
9.	Gobar gas/Biogas	2.53	2.23
10.	Bullock and Bullock cart	14.31	7.79
11.	Marshy land reclamation/inter-space filling	52.69	158.01
12.	SADU	234.99	54.52
13.	Others	38.10	76.17
	Total	2118.72	2226.86

Table 4.14

Physical Achievements under Special Component Plan and Tribal sub-Plan

Sl. No.	Particulars of Benefits given	Unit	1987-88	
			Under special Component Plan to Scheduled Castes (3)	Under Tribal sub-Plan to scheduled tribes (4)
	(1)	(2)	(3)	(4)
1.	Number of Colonies Benefited	No.	3468	347
2.	Number of families Benefited	No.	111427	12175
3.	Area benefited	ha.	11656	9780
4.	Coconut Seedlings	Nos.	275986	42731
5.	Pepper cuttings	"	167114	82160
6.	Clove Seedlings	"	1890	900
7.	Banana Suckers	"	71476	1825
8.	Mango grafts	"	898	1698
9.	Sapota Grafts	"	36	..

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	1	2	3	4
10.	Cashew seeds	Kg.	300	400
11.	Vegetable seeds	Packets	11438	6930
12.	Pumpsets installed	Nos.	50	10
13.	Wells constructed	"	165	16
14.	Filter point wells constructed	"	18	..
15.	Infrastructural facilities like Agro Service Centres	Nos.	29	3
16.	Tractor	"	6	3
17.	Knapsack sprayers	"	4079	67
18.	Power Sprayers	"	17	3
19.	Rocher Sprayers	"	1088	242
20.	Power Tillers	"	77	12
21.	Fertilizers	M.T.	6363	246

Table 4.16

Details regarding Input Programmes of KCMMF Ltd., for the Calendar year 1987 & 1988

Sl. No.	Particulars	1987	1988
	(1)	(2)	(3)
1.	No. of APCOS registered (cum)	692	988
2.	No. of APCOS functional (cum)	676	813
3.	No. of member in APCOS (cum)	131515	162229
4.	No. of women members in APCOS	12937	15439
5.	No. of SC/ST members in APCOS	8912	10450
6.	No. of OBC members in APCOS	18401	24538
7.	Av: milk procured/day	138403	188421
8.	Av: milk supplied to Dairy/day	112075	165057
9.	Percentage of milk supplied to dairy	80.9%	87.6%
10.	Average quality	FAT 4.5 SNF 8.4	4.3 8.4
11.	Mobile regular vety. service routes	12	15
12.	No. of cases treated by regular units	126511	184167
13.	No. of emergency vety. units	7	8
14.	No. of cases treated by emergency units	10683	18349
15.	No. of societies providing first aid	341	342
16.	Direct employment generated	1575	1845
17.	No. of APCOS selling cattle feed	525	671
18.	Total qty. of feed sold through societies	23951	17791

IRRIGATION AND POWER

A. Irrigation

The irrigable area through surface water system in the State had been estimated at 16 lakh ha. (net) or 25 lakh ha. (gross). Till the end of 1987-88 the total area brought under irrigation is 361212 ha. (net) or 597531 ha. (gross), which is only 24% the total estimated irrigable area in the State by investing an amount of Rs. 69954 lakhs.

Major and Medium Irrigation

5.2 The total extent of land that can be brought under irrigation through major and medium irrigation projects in the State has been assessed as 6 lakh ha. (net) or 14 lakh ha. (gross). The ten completed irrigation projects viz. Chalakudy, Peechi, Malampuzha, Neyyar, Pothundy, Gayahri, Walayar, Vazhani, Mangalam and Cheerakuzhy irrigate an area of 76589 ha. (net) or 147143 ha. (gross). Through the partial commissioning of the seven ongoing projects viz. Kallada, Pamba, Periyar Valley, Chitturpuzha, Kanhirapuzha, Kuttiady and Pazhassi the additional area that is brought under irrigation is 99244 ha. (net) or 226291 ha. (gross) till the end of 1986-87; with an investment of Rs. 57350 lakhs. During the year 1987-88 Rs. 4558.83 lakhs was spent on the ongoing schemes and the area benefited was 3507 ha. (net) or 5749 ha. (gross). Even though the projects, Pamba, Periyarvalley, Chitturpuzha, Kuttiady and Pazhassi were targetted to be completed during 1988, these could not be completed in all respects due to various reasons. Details regarding the year of starting, original estimated costs, latest revised estimated costs and cost escalation of completed and ongoing major and medium irrigation projects, physical and financial achievement etc., of various projects are given in Appendix 5.1 and 5.2 respectively.

5.3 Out of the ongoing schemes, Kallada is in the advanced stage of completion, and is expected to be completed in 1989-90. As per the agreement originally executed with the World Bank, the scheme was to be completed by March 1989. Indications are that the Bank will agree to the extension of the period upto September 1989.

5.4 Pampa is nearing completion. The works on the field boothies are in progress. The scheme is programmed to be completed during 1989-90, except for Kaviyur Branch Canal beyond 7th km.

5.5 In Periyar Valley, the work of high level canal was completed and commissioned during December 1988. Construction of branches and distributories are in progress.

5.6 Works on Chitturpuzha-Moolathara scheme are nearing completion. The works in Meenakshipuram lift irrigation scheme is in progress.

5.7 In the case of Pazhassi, the work on the formulation of distributories are in progress. The land for Punniyur distributory is in Mahe territory. This has not been handed over. The works envisaged in the original project report have been almost completed.

5.8 Kuttiady irrigation project is also nearing completion, Works on some distributories and field boothies are to be completed. But they are progressing.

5.9 Kanhirapuzha project is in the advanced stage of completion. Works on the distributories and field boothies are in progress.

5.10 The works on the Kuriarkutty-Karappara and Kakkadavu have been suspended for want of Government of India clearance, and also due to the objections of the people residing in the water spread area of the project.

5.11 All the other schemes are in the initial stages of execution and major works are yet to be commenced.

*Minor Irrigation**Surface Water*

5.12 The area reported to be brought under irrigation through minor irrigation schemes till the end of 1986-87 was 175830 ha. (net) or 210916 ha. (gross) spending an amount of Rs. 7688 lakhs. During 1987-88 an amount of Rs. 357 lakhs was spent and the area benefited was 5992 ha. (net) or 7432 ha. (gross). Thus till the end of 1987-88 the total area brought under irrigation through minor irrigation schemes was 181822 ha. (net) or 218348 ha. (gross) investing a total amount of Rs. 8045.80 lakhs. During the year under review 40 MI Class I works, 63 MI Class II PWD works, 40 lift irrigation schemes and 33 IPD yelah works were completed. The physical and financial achievement and other details of works completed during the year 1987-88 are given in Appendices 5.3 and 5.4.

Ground Water

5.13 The major activities of Ground Water Department is to investigate, locate and drill various ground water structures in the State for minor irrigation, industrial and drinking water purposes. The Department has also been attending to the technical clearance of minor irrigation schemes for various financing institutions such as NABARD, REC and other nationalised banks.

5.14 The Department has also undertaken hydrological studies of river basins and the water level measurement of the observation wells established by the Department. During the year under review hydrogeological survey was carried out in 1176 ha. of land. The Department have cleared sites for 186 borewells, 76 shallow bore wells, 10 tube wells and 13 filter pump wells and construction of 88 bore wells, 10 tube wells, 104 filter pump wells and 138 shallow wells. Ground water feasibility certificate was given for 2070 irrigation open wells, 296 renovation wells, 810 pump sets installation and clearance for 670 wells for energisation by various financial institutions.

Flood Control and Anti-sea erosion

5.15 The main work taken up under flood control programme were construction of embankment retaining walls, bedbars etc., to protect the area from the ravages of flood. Till the end of 1986-87 an amount of Rs. 1440 lakhs was spent to protect an area of 25748 ha. from flood havoc. During 1987-88 out of 81 works proposed only 6 works were completed and area protected was 1024 ha. with an investment of Rs. 95.93 lakhs. 75 works are pending completion. Thus till the end of 1987-88, 26772 ha. were protected from the ravages of with a total investment of Rs. 1535.93 lakhs.

5.16 Under anti-sea erosion programme, upto the end of 1986-87, 312 km. of vulnerable sea coast had been protected spending an amount of Rs. 8877 lakhs. During the year under review, out of 87 works proposed 8 new works of 4.15 km. in length were completed and 6 reformation works of 4.8 km. in length were constructed by spending an amount of 470 lakhs. The physical and financial achievement of flood control and anti-sea erosion programmes are given in Appendix 5.5.

Command Area Development Programme

5.17 The Command Area Development Programme envisages the overall development of the command areas in respect of the ten completed irrigation project of the State viz. Malampuzha, Walayar, Pothundy, Gayathri, Mangalam, Peechi, Chalakudy, Vazhani, Cheerakuzhi and Neyyar. The main activities are construction of field channels and field drains, land levelling, land shaping, introduction of warabandhi etc.

5.18 Upto the end of 1986-87 an amount of Rs. 272.40 lakh was spent and field channels have been constructed in 11376 ha. of land. Rotational supply of water was ensured and 1042 beneficiary farmers association were organised and registered for effective management of water. During 1987-88, 8665 ha. of land have been covered by field channels, and warabandhi system introduced in 9411 ha. of land by spending an amount of Rs. 250.62 lakhs. Rotational supply of water was ensured in 17432 ha. 1600 beneficiary farmers associations were organised for managing the distribution of waters below the minor distributaries.

B. Power Development

Generation

5.19 The power generation in the State as on 31-3-1988 was 4094 MU as against 4642 MU as at the end of 1986-87 showing a decrease of 13% over the previous year. This was due to the poor inflow of water to the hydel reservoirs consequent on the failure of monsoons during 1987-88. No new projects were commissioned during the year under review and hence no addition to the installed capacity. Import of power during the year was 1009 MU which is 3.7% more than that of the previous year. Even with this import of power the full requirement of the State could not be met. The percapita consumption of power shows a decrease of 3.6% over the previous year i.e., from 130.5 kwh in 1986-87 to 125.5 kwh during 1987-88 which is very low compared to the neighbouring States and that of all India average. This is due to short fall in the availability of power during the year. Energy loss as a percentage of energy available for sale, shows an increase by 1.08% i.e., from 27.58% in 1986-87 to 28.64% in 1987-88. The growth of power system, power generation capacity and power generated during 1987-88 are given in Appendices 5.6 and 5.7.

5.20 The ongoing generation projects are in various stages of execution. Details regarding year of starting, cost estimate, energy potential, expenditure upto March 1988 and expected year of commissioning of major ongoing hydroelectric projects are given in Appendix 5.8.

5.21 In the context of the acute power shortage during 1987-88, due to poor inflow of water to the reservoirs KSEB imposed load shedding and power cuts in that year. The details of load shedding and power cut imposed during 1987-88 are furnished below. 20% power cut was imposed on HT and EHT consumers from 20-4-1987. This was increased to 40% from 8-8-1987. This was however reduced to 20% with effect from 16-9-1988.

5.22 Load shedding was also effected to the domestic consumers from 8-8-1987 to 10-6-1988. The details are given below:

3 hour load shedding on 11 KV feeder from 8-8-1987 and half an hour peak load restriction on 3-8-1987.

4 hour load shedding on 11 KV feeder from 11-8-1987 and 1 hour peak load restriction.

6 hour load shedding on 11 KV feeder from 20-8-1987.

5.23 This load shedding was lifted from 10-6-1988. Peak load (night) restriction was lifted on 6-10-1988. The pattern of consumption of power among the different category of consumers and revenue collected during 1987-88 is given in appendix 5.9.

5.24 The power tariff was revised with effect from 1-8-1988. This hike in the tariff rate was effected almost for all categories of consumers. Average rate of electricity supply and electricity duty for different categories of consumers are given in Appendix 5.10.

Transmission and Distribution

5.25 During the year under review, 56 ctkm. 110 KV lines, 41 ctkm 66 KV lines, 425 ctkms, 11 KV line and 4261 ctkms CT lines were commissioned during 1987-88. 4 EHT sub stations were opened and 583 distribution transformers of capacity 61 KVA installed. Number of consumers increased from 26.1 lakhs in 1986-87 to 27.7 lakhs in 1987-88, registering an increase of 1.6 lakhs during the year under review. 13581 pumpsets were energised and 5279 street lights erected during the year.

Non Conventional Sources of energy and Rural Technology

5.26 ANERT is an autonomous body established by the State Government and is the nodal agency for implementing the various national programmes of new and renewable sources of energy.

5.27 Under the National Programme of improved chullahs during the year 1987-88 a

total of 25917 fixed chullahs were installed and 429 portable chullahs were sold. Besides 60 training courses on installation of improved chullahs were conducted. The expenditure incurred on this programme was Rs. 22.89 lakhs.

5.28 Under Solar thermal energy programme 3 units of solar water heating systems were installed at a total capacity of 14000 LPD by spending an amount of Rs. 10.05 lakhs.

5.29 Solar photo voltaic technology enables the generation of electricity directly from sun light. Under this programme 50 solar PV lights and 2 Solar PV pumps were installed during the year 1987-88 by spending an amount of Rs. 0.64 lakhs.

5.30 The integrated rural energy planning programme was started in one Block viz: Wadakanchery during 1987-88. Three more blocks viz: Athiyanoor, Mananthody and Neeleshwaram were selected and preliminary works were carried out for setting up IREP cells in these blocks. The major programme executed in Wadakancherry includes installation of 25 numbers of solar PV light in remote harijan habitat and installation of PV pumps and one PV light for demonstration. Chullah camps were conducted and installation of fixed chullahs were also done in this block.

INDUSTRY

Industrial Scene

The industrial production in Kerala continued to be sluggish on account of acute power shortage and related problems. In spite of this, the performance in 1987-88 reveals that the industrial sector has shown a great deal of resilience. The Net Domestic Product from the manufacturing sector showed slight recovery, by registering a rate of growth of 1.4 per cent at 1980-81 prices, to Rs. 594 crores in 1987-88, from Rs. 586 crores in 1986-87, when it suffered a substantial decline of 6.9 per cent compared to the previous year. The Net Domestic Product in the manufacturing sector at current prices, however, recorded a rate of growth of 9.2 per cent in 1987-88 (Provisional estimates), over the previous year.

6.2 The industrial climate in the state was encouraging, in the sense that the number of labourers affected and mandays lost have declined substantially. During 1987, the number of labourers affected by industrial disputes decreased to 40,119 from 132,913 in the previous year. The number of mandays lost came down to 20.01 lakhs from 23.11 lakhs in the previous year.

6.3 The small scale industries sector recorded substantial progress during 1987-88. 6849 new small scale industries were registered during the year. These units, with an investment of Rs. 94.49 crores, provided additional employment to 38,245 persons.

6.4 Government of Kerala reintroduced the system of monopoly procurement of cashew in the 1988 cashew season, after a lapse of six years, in order to maximise the processing activity within the state so that employment to the cashew workers are assured to the maximum extent possible. Another major landmark in the traditional industries sector in the state was the introduction of three point levy system of raw husk with effect from 20-4-1988 in order to increase employment opportunities to the labourers of the Coir Co-operative Societies.

Industrial Production

6.5 The index of industrial production has declined to 170.95 in 1986-87 (1970=100) from 200.00 in the previous year. From a level of 227.53 during the quarter ended March 1986 the index declined to 178.73 during the quarter ended June 1986 and further to 164.23 during the quarter ended September 1986. There was a slight recovery to 179.82 during the quarter ended December 1986, but again plummeted to a low of 161 points during the quarter ended March 1987.

Annual indices of industrial production from 1975-76 are furnished in Appendix 6.1 and industry-wise indices for the year 1984-85, 1985-86 and 1986-87 in Appendix 6.2.

6.6 The achievements of the various departments and public sector undertakings of the industrial sector during 1987-88 are furnished in the following paragraphs.

Working Factories and Employment

6.7 There were 12,184 registered working factories in the state as on 31-12-1987 compared to 11,530 as at the end of December 1986. This shows a growth of 5.7 per cent over that of the previous year. The number of factories increased in all the districts except Alleppey, Cannanore and Kasargod. As in the previous year maximum increase in the number of factories was noticed in Ernakulam district, which rose to 2162 by the end of 1987 from 1913 in 1986. The number of workers employed in the factory sector in Kerala also increased from 292,852 to 299,637 registering a growth of 2.3 per cent during this period.

6.8 Maximum increase in the number of workers in the factory sector was registered in Quilon district where it rose by 2343, from 102,005 as on 31-12-1986 to 104,348 as at the end of December 1987. The other major increases in the number of workers were in the districts of Trichur and Trivandrum where it increased by 1499 and 1688 respectively during this period. But the number of workers in three districts viz; Cannanore, Kozhikode and Idukki declined during 1987. District-wise distribution of working factories and employment thereon in the state is given in Table 6.1.

6.9 A category-wise analysis of the working factories in the state shows that cashew industry was providing maximum employment among the industries under the registered factory sector. The 264 registered cashew factories in the state provided employment to 107,197 workers, nearly 36 per cent of the total workers employed during 1987. Quilon district alone accounted for 83.5 per cent of the workers engaged in the cashew industry in Kerala during 1987. The units engaged in general engineering and manufacture of cotton textiles, chemical and chemical products, rubber and rubber products and tiles were the other major employers in the factory sector of Kerala. The industry-wise distribution of registered working factories in Kerala and the workers engaged therein for the years 1986 and 1987 is shown in Appendix tables 6.3 and 6.4.

Table 6.1
Registered Working Factories in Kerala
(As on 31st December)

District	Number of Factories		Employment (Nos.)	
	1986	1987*	1986	1987*
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	455	497	20420	22108
2. Quilon	933	985	102005	104348
3. Pathanamthitta	163	220	1619	2134
4. Alleppey	768	768	16682	16722
5. Kottayam	1022	1027	13073	13560
6. Idukki	242	259	5763	5720
7. Ernakulam	1913	2162	44645	44680
8. Trichur	1428	1516	24506	26005
9. Palghat	1252	1257	14419	14756
10. Malappuram	538	599	6608	6768
11. Kozhikode	1382	1449	22034	21798
12. Cannanore	1364	1364	19813	19573
13. Wayanad	64	76	1188	1358
14. Kasaragod	6	5	77	107
Total	11530	12184	292852	299637

* Provisional

Source: Department of Economics and Statistics

Joint Stock Companies in Kerala

6.10. The number of joint stock companies functioning in Kerala increased to 3336 by the end of March, 1988. This included 2709 private limited and 627 public limited companies compared to 2450 private and 612 public limited companies totalling to 3062 as at the end of March 1987. A total number of 281 companies consisting of 264 private and 17 public limited companies were newly registered in Kerala during 1987-88. Moreover one of the companies working in the State was transferred to another State while one company was transferred into Kerala from another State. The total number of Government companies in the State increased to 97 including 74 private and 23 public limited companies, by the end of March 1988 from 95 in the previous year. The two new Government companies registered during 1987-88 are the Lakshadweep Development Corporation Limited and the Kerala State Women's Development Corporation Limited. The Ruby Rubber Works Ltd., is one of the private companies wound up during 1987-88. The details of joint stock companies working in the State are given in Table 6.2:

Table 6.2
Details of Joint Stock Companies in Kerala

Particulars	Private Limited	Public Limited	Total
(1)	(2)	(3)	(4)
1. Number of Joint Stock Companies in Kerala as on 31-3-1987	2450	612	3062
2. Number of Companies Newly Registered During 1987-88	264	17	281
3. Number of Companies Wound up During 1987-88	5	2	7
4. (a) Number of Companies Transferred to other States During 1987-88	1	..	1
(b) Number of Companies Transferred to Kerala from Other States During 1987-88	..	..	1
5. Net Addition to Total Number of Joint Stock Companies During 1987-88 [Item 2—(3+4)]	259	15	274
6. Total Number of Joint Stock Companies in Kerala as on 31-3-1988 (Item 1+5)	2709	627	3336
7. Number of Government Companies Registered up to 31-3-1987	72	23	95
8. Number of Government Companies Registered During 1987-88	2	..	2
9. Total Number of Government Companies in Kerala as on 31-3-1988 (Item 7+8)	74	23	97

Source: Registrar of Joint Stock Companies, Cochin.

Industrial Promotional Agencies

Kerala State Industrial Development Corporation Ltd.

6.11. The total financial assistance sanctioned by the Corporation by way of share capital contribution and term loan to various industries during 1987-88 amounted to Rs. 9.68 crores. On the otherhand the Corporation disbursed a total amount of Rs. 11.65 crores (loan and share) during this period, including arrears of sanctioned amount remained to be disbursed during the previous year. Seventeen industrial projects involving a total cost of Rs. 30 crores were completed during 1987-88 with the financial support of the Corporation. These projects would provide direct employment to 1230 persons. The total number of projects commissioned with the assistance of this Corporation upto the end of March 1988 stood at 112. In addition, 26 projects were under various stages of implementation during 1987-88. Moreover seventeen projects were under finalisation and 31 projects were under various stages of development like pre-investment and viability studies. The working of the Corporation during 1987-88 ended with a net profit of Rs. 41.51 lakhs.

Kerala State Electronics Development Corporation

6.12. The Corporation was managing eight State sector undertakings viz., The Keltron Counters Ltd., Keltron Component Complex Ltd., Keltron Crystals Ltd., Keltron Resistors Ltd., Keltron Magnetics Ltd., Keltron Electro Ceramics Ltd., Keltron Power Devices Ltd., and Keltron Rectifiers Ltd., during 1987-88. Besides,

there were nine manufacturing divisions under its control. The provisional accounts of the Corporation for the year 1987-88 shows that the value of goods manufactured by various divisions of the Corporation amounted to Rs. 28.70 crores during this period as against Rs. 26.60 crores in the previous year. On the other hand, the sales turnover of the Corporation has been estimated at Rs. 74 crores as compared to Rs. 71 crores in 1986-87. The working of the Corporation during 1987-88 was expected to end with a loss of Rs. 400 lakhs as compared to Rs. 512 lakhs in the previous year. The major reasons for the loss were inadequate performance of the consumer electronics and industrial electronics divisions and low build up in manufacturing operations resulting in low value addition. The Corporation has taken up a number of projects for expansion, modernisation and rehabilitation of its various subsidiaries manufacturing divisions.

Kerala State Industrial Enterprises Limited

6.13. The Company was managing seven Government owned enterprises during the period under review. They were the Kerala Ceramics Ltd., Kerala Electrical and Allied Engineering Co., Ltd., (2 units), Kerala Soaps and Oils Ltd., Kerala State Drugs and Pharmaceuticals Ltd, Travancore Plywood Industries Ltd, and Kerala State Salicylates and Chemicals Ltd. Of these, the Kerala State Salicylates and Chemicals Ltd., had not started commercial production. The performance of all the six companies was not satisfactory during 1987-88. Both production and sales of these companies declined during this period compared to the previous year. None of these companies could earn profit during 1987-88. The total value of goods manufactured by these companies declined to Rs. 26.47 crores during 1987-88 from the previous year's level of Rs. 29.08 crores. Sales turnover also decreased correspondingly from Rs. 35.01 crores to Rs. 29.70 crores during this period. The loss incurred by these companies amounted to Rs. 7.60 crores as against Rs. 6.58 crores in 1986-87. The major reasons attributed to these poor performance of these companies were power shortage, shortage of working capital, scarcity of essential raw materials, technological obsolescence, unfavourable market conditions etc.

6.14 The Company earned an income of Rs. 63.90 lakhs during 1987-88 as compared to Rs. 55.46 lakhs in 1986-87 through air cargo operations. The Cargo complex at Trivandrum and Cochin handled 5427 MT of Cargo during 1987-88 as against 4890 MT in the previous year. The clearing and forwarding value of cargo handled during 1987-88 amounted to Rs. 22.06 crores which was 28.5 per cent higher than that attained in 1986-87. Moreover, the Company sold out products of its subsidiaries valued at Rs. 36.19 lakhs through its sales emporium at Trivandrum. The Company earned a net profit of Rs. 1.61 lakhs in 1987-88 as compared to Rs. 0.36 lakh in 1986-87.

Kerala State Textile Corporation Limited

6.15. This Corporation was managing three textile mills viz., Malabar Spinning and Weaving Mills, Calicut, Kottayam Textiles, Ettumanoor; and Prabhuram Mills, Chengannur which were nationalised under the Kerala State Sick Textile Undertakings (Acquisition and Transfer of Undertakings) Act of 1985. These mills are working as fully owned units of the Corporation. Besides, the Corporation has set up a textile mill in Malappuram district viz., the Edarikode Textile Ltd. These four mills together produced 11.40 lakh kg. of cotton yarn valued at Rs. 519.05 lakhs and 9.18 lakh metres of cloth valued at Rs. 53.04 lakhs during 1987-88. The consolidated production details of the mills managed by the Corporation for the last three years are given in Table 6.3.

6.16. According to the provisional figures furnished by the Corporation it was working on loss during 1987-88 also. The net loss incurred by the Corporation during this period amounted to Rs. 219.03 lakhs as against a net loss of Rs. 105.51 lakhs in the previous year. More than 40 per cent of the loss sustained by the Corporation during 1987-88 was contributed by the Edarikode Textiles Ltd., which could not commence its operations on three shift basis due to the non-completion of certain facilities. Other factors which contributed to the loss incurred by the Corporation include inadequate power supply, sharp increase in the cost of raw materials without commensurate increase in the selling price of products, shortage of working capital etc. The Corporation has taken steps to complete the balance works connected with the establishment of the Edarikode Textiles Ltd., modernisation of other mills managed by the Corporation, rehabilitation of its hosiery division and to set up an export oriented garment making unit at Shertallai.

Table 6.3
Consolidated Production details of Malabar Spinning and Weaving Mills, Kottayam Textiles, Prabhuram Mills and Edarikode Textiles Managed by the Kerala State Textile Corporation Ltd.

Year	Cotton yarn		Cloth		Total Value of Production (Rs. lakhs)
	Production (Lakh Kg.)	Value (Rs. lakhs)	Production (Lakh Metre)	Value (Rs. lakhs)	
(1)	(2)	(3)	(4)	(5)	(6)
1985-86	17.25	588.25	16.36	89.84	678.09
1986-87	13.88	468.16	11.28	59.31	527.47
1987-88	11.40	519.05	9.18	53.04	572.19

Source: Kerala State Textile Corporation Ltd.

Kerala State Industrial Products Trading Corporation

6.17. This corporation engaged in the trading of monopoly products being manufactured by the State public sector undertakings procured and sold out 11246.47 MT of titanium dioxide during 1987-88 as compared to 9704.86 M.T. in 1986-87. Besides, it procured and sold out 9999.25 M. T. of white cement during 1987-88

manufactured by the Travancore Cements Ltd. Other items dealt with by the corporation include potassium titanate and sodium titanate. The total sales turnover of the Corporation during 1987-88 was Rs. 44.83 crores of which titanium dioxide accounted for Rs. 41.41 crores. The additional revenue to the State by way of sales tax as a result of canalisation of sales through the corporation during 1987-88 has been estimated at Rs. 5.27 crores. In addition, the corporation collected and remitted Rs. 152.28 lakhs by way of Central Sales Tax during this period. The corporation earned a profit of Rs. 20.07 lakhs during 1987-88 after providing for taxation as compared to Rs. 11.47 lakhs in the previous year. The details of products purchased and sold out by this Corporation during 1986-87 and 1987-88 are given in Appendix 6.5.

Government Owned Companies

6.18. Twenty-five manufacturing companies were there in Kerala as on 31-3-1988 which were fully owned by the State Government. Of these, the Kerala State Engineering Works Ltd., was under orders of liquidation and the Foam Mattings (India) Ltd., under lock-out. Among others, seven companies (mentioned earlier) were being managed by the Kerala State Industrial Enterprises, a holding company of the State Government. The Steel Industrials Kerala Ltd., another holding company was managing two companies viz. The Steel and Industrial Forgings Ltd., and the Autokast Ltd. The annual accounts of some of the companies for the year 1987-88 have not yet been finalised. However, some of them have furnished provisional figures relating to their working during this period. An attempt is made in the following paragraphs to analyse the performance of these companies during 1987-88 on the basis of the details made available by them.

6.19. The total capital invested by this group of companies increased to Rs. 340.10 crores by the end of March, 1988 from Rs. 303.13 crores as at the end of March, 1987, registering a growth of 12.20 per cent over the previous year. The number of persons employed in these companies, on the other hand, declined to 9999 by the end of March, 1988 from 10157 as at the end of March, 1987, showing a marginal decrease of 1.6 per cent over that of the previous year. The company-wise details of capital invested and persons employed are given in Appendix 6.6.

6.20. Fifteen companies among the 23 companies in this group have furnished details relating to their performance during 1987-88. The total value of goods manufactured by these fifteen companies increased to Rs. 110.12 crores during 1987-88 from the previous year's level of Rs. 90.09 crores, registering growth of a little over 22 per cent. During this period, the sales turnover of these companies increased by 28.8 per cent attaining a level of Rs. 134.85 crores as against Rs. 104.67 crores in the previous

year. The performance of these companies in terms of value of production and sales turnover during 1986-87 and 1987-88 is given in Appendix 6.7.

6.21. Among these fifteen companies only one company viz., the Kerala Agro Machinery Corporation Ltd., earned profit during 1987-88. All others were incurring loss during this period due to various reasons. As regards the 'KSIE' group of companies shortage of working capital was the major factor which affected the overall performance of these companies very badly. Apart from this, scarcity of essential raw materials, technological obsolescence etc., contributed to their adverse performance. Efforts of the Holding Company to mobilise working capital from various sources for replenishment of cash loss of its subsidiaries did not succeed as banks and financial institutions did not grant additional facilities on account of sickness of the assisted units. The total loss incurred by the six subsidiary companies of the KSIE Ltd., during 1987-88 is estimated to be Rs. 760.22 lakhs.

6.22. The production activities of the Kerala Automobiles Ltd., was adversely affected due to non availability of components required for the manufacture of three wheelers during 1987-88. The arrangement with the collaborators for the supply of vital components including engine components after the expiry of the collaboration agreements did not work well. Scarcity of timber affected adversely the production performance of the Kerala State Wood Industries Ltd. Increase in the price of cotton without corresponding increase in the sales realisation was the major reason for the bad performance of the Trivandrum Spinning Mills Ltd. The Malabar Cements Ltd., achieved an all-time record in the capacity utilisation during 1987-88 and attained rapid progress in the areas of production and sales turnover. The value of cement manufactured by the company during this period amounted to Rs. 35.74 crores as against Rs. 23.76 crores in the previous year. Sales turnover of the Company touched a level of Rs. 48.68 crores in 1987-88 as against Rs. 30.55 crores in 1986-87. The value of production as well as the sales turnover of the Kerala Minerals and Metals Ltd., also showed improvement over those of the previous year. The value of production of this company amounted to Rs. 32.37 crores in 1987-88 as compared to Rs. 21.98 crores in 1986-87 while its sales turnover increased to Rs. 31.26 crores from Rs. 21.49 crores during this period. The details relating to capacity utilisation in the Government owned companies are shown in Appendix 6.8.

Government Majority Companies

6.23. Majority share in the paid up capital of 22 manufacturing undertakings in Kerala was held by the State Government during 1987-88. They included ten subsidiaries, of which the Kerala State Electronics Development Corporation Limited was managing eight companies viz., the Keltron Counters Ltd., Keltron

Electro Ceramics Ltd., Keltron Crystals Ltd., Keltron Magnetics Ltd., Keltron Resistors Ltd., Keltron Power Devices Ltd., Keltron Rectifiers Ltd., and Keltron Component Complex Ltd. The other subsidiaries were the Steel Complex Ltd., managed by the Kerala State Industrial Development Corporation Ltd., and the Sidkel Televisions Ltd., managed by the Kerala State Small Industries Development Corporation Ltd. The annual accounts of some of these companies for the year 1987-88 were not finalised. However some of them have furnished provisional figures relating to their performance during 1987-88.

6.24. The total capital invested by these 22 companies has increased to Rs. 112.44 crores by the end of March, 1988 registering a growth of a little over 28 per cent over the previous year's level of Rs. 87.68 crores. The total number of employees engaged by these companies during 1987-88 stood more or less at the same level of 8800 of the previous year. The details of capital invested and employment in respect of Government majority Companies are given in Appendix—6.9.

6.25. Sixteen out of these 22 Companies under this category have furnished details regarding their performance during 1987-88. An analysis of the details furnished by these 16 Companies shows that the value of goods produced by them during 1987-88 has registered a growth of 11.3 per cent by attaining a level of Rs. 50.63 crores in 1987-88 as against Rs. 45.51 crores of the previous year. The total sales turnover of these companies also improved noticeably marking a growth of 21.6 per cent over that of the previous period. The sales turnover of these companies amounted to Rs. 56.67 crores during 1987-88 as compared to Rs. 46.59 crores in 1986-87. The details of the value of production and sales turnover of the Government majority companies in the State for the years 1986-87 and 1987-88 are furnished in Appendix—6.10.

6.26. Only six companies viz., the Keltron Magnetics Ltd., Keltron Counters Ltd., Keltron Component Complex Ltd., Travancore Cochin Chemicals Ltd., Travancore Sugars and Chemicals Ltd., and the Metal Industries Ltd., among the sixteen companies which have furnished details, could earn profit during 1987-88. Five among these six companies (except Travancore Cochin Chemicals Ltd.) were working on profit during 1986-87 also. The Travancore Cochin Chemicals Ltd., could earn a net profit of Rs. 182 lakhs during 1987-88. All the other ten companies including five subsidiaries of Kerala State Electronics Development Corporation Ltd., were incurring loss during 1987-88. Shortage of working capital and non-availability of components affected adversely the production activities of some of the subsidiary companies of the Kerala State Electronics Development Corporation Ltd., during 1987-88. Total loss incurred by the five subsidiaries of the Corporation in 1987-88 has been estimated at Rs. 2.65

crores. The main reason for the loss incurred by the Travancore Cements Ltd., was the severe competition in the market which forced the Company to absorb the increase in the cost of inputs. Captive generation of electricity necessitated as a result of the power cut imposed in the State added to the increased cost of inputs. Shortage of working capital and increase in the operational costs continued to affect the production performance of the United Electrical Industries Ltd., very badly. Moreover lack of sufficient orders from the Kerala State Electricity Board for KWH metres during 1987 had upset the revival programme originally envisaged by the Company. Lack of sufficient orders for finished products as well as scarcity of raw material adversely affected the operations of the Forest Industries (Travancore) Ltd., during 1987-88. Details relating to installed capacity and its utilisation in respect of Government majority companies for the year 1986-87 and 1987-88 are given in Appendix—6.11.

Small Scale Industries

6.27. The number of small scale industrial units registered in Kerala during 1987-88 was 6849 as against 4977 units in 1986-87. This shows a substantial increase of 37.61 per cent over the previous year. These units with an estimated investment of Rs. 94.49 crores provided employment opportunities to 38,245 persons. Of the units started during 1987-88, 130 units were promoted by Scheduled Castes, 12 units by Scheduled Tribes and 690 units by women entrepreneurs. The district-wise details of new small scale units registered during 1987-88 are given as Appendix—6.16.

6.28. The total number of small scale units in the State as on 31st March, 1988 was 47,191, the total investment in these units being Rs. 651.17 crores. The sector was able to provide employment to 2.36 lakh workers. The classification of the units according to the category of promoters reveals that, 1256 (2.66%) units were started by Scheduled Castes, 61 units (0.13%) by Scheduled Tribes, 3093 units (6.55%) by women and the rest by other entrepreneurs. The average investment per unit works out to Rs. 1.38 lakhs and the average employment per unit to five. The district-wise details of registered small scale industrial units as on 31st March, 1988 are given in Appendix—6.17.

6.29. Of the total number of 47191 registered small scale industrial units, 2171 units (4.60%) are classified as sick and 5273 units (11.17%) are closed and defunct. (In other words, the number of effectively working units in the State is 39747 which is 84.23 per cent of the total number of units.) The number of sick units revived by the district industries centres during 1987-88 was only 177 which forms only 8.15 per cent of the units identified as sick.

6.30. An analysis of the number of small scale units registered and their working shows that Ernakulam district stands at the top with a total number of 6298 units (13.34%). The percentage of working units in the district is 83.77 and the rate of sickness 4.60%. In Cannanore district, there are 5196 units (11.01%). The percentage of working units is 85.89 and the rate of sickness 3.89%. Appendix-6.18 shows the district-wise details regarding working status of small scale industrial units in Kerala.

6.31. Altogether, 609 candidates were given training under the entrepreneur development programme during 1987-88, as against 607 persons during the previous year. Of the total number of trained candidates, 104 (17%) were Scheduled Castes and Tribes. The number of trained entrepreneurs who have started industries was 126 representing only 21 per cent of the total number trained. Details on entrepreneur development training programme are given in Appendix-6.19.

6.32. During the year (1987-88) the margin money assistance was extended to 793 units and the amount spent was Rs. 225.78 lakhs. Under State investment subsidy an amount of Rs. 80.40 lakhs was disbursed to 342 units in the small scale sector. Besides, 256 units sponsored by women industrialists were assisted by giving Rs. 21.77 lakhs. For the development of industrial units promoted by Scheduled Caste entrepreneurs, assistance by way of loan and grant was extended to 971 beneficiaries, share capital assistance was given to 14 industrial co-operative societies, grant to 13 societies. Besides, an industrial estate was started exclusively for Scheduled Castes. The achievements under tribal development schemes include distribution of grant and loan to 170 entrepreneurs, share capital assistance to 10 industrial co-operative societies and grant to eight societies. Moreover, 1299 scheduled caste and 134 scheduled tribe craftsmen were given grant assistance.

6.33. The progress of rural artisans programme during 1987-88 was not impressive when compared to the performance in the previous year. The total number of artisan units promoted during the year was 4730 as against the achievement of 10,882 units in the previous year. Of the total number of units, 34% was started by Scheduled Castes, 2% by Scheduled Tribes, 29% by women and 35% by others. The details on the number of artisan units started are given in Appendix-6.20.

6.34. Under the programme of Self Employment for Educated Unemployed Youth (SEEUY), altogether 9407 loan applications were sanctioned for Rs. 1758.96 lakhs during 1987-88. Against this, the disbursement was Rs. 1090.83 lakhs to 6397 beneficiaries. Achievements during the year was far from satisfactory compared to the sanction of 19015 cases of loans

for Rs. 3805.65 lakhs and disbursement of Rs. 1867.23 lakhs to 11456 beneficiaries, during 1986-87. The decrease during the year works out to 51% in sanction of loan, 54% in amount sanctioned, 44% in number of cases of loan disbursed and 42% in amount disbursed. Appendix-6.21 provides details of the achievements under the programme.

6.35. Under the co-operative sector, 39 industrial co-operative societies were registered during 1986-87. Thus the total number of industrial co-operative societies reached to 1550 as on 30th June, 1987. The classification of societies according to the promoters reveals that 68 primary societies and two central societies were registered by beedi workers, 243 societies by women industrialists, 95 societies by Scheduled Castes, 26 societies by Scheduled Tribes and 1116 societies by other entrepreneurs. The district-wise distribution of industrial co-operative societies is given in Appendix-6.22.

6.36. The functional responsibilities of the Small Industries Development Corporation (SIDCO) include construction, maintenance, management and administration of industrial estates and developed plots, distribution of scarce and imported raw materials to small scale industrial units, marketing of small scale products and technical consultancy services. All the 17 major industrial estates and 36 mini industrial estates in the State were under the management of the Corporation during 1987-88. Altogether there were 530 working sheds in the major estates. Of these 514 sheds were occupied but the total number of units accommodated in the sheds was only 317. Of these, 255 units were working and 62 units were defunct during the year. In the mini industrial estates, 393 working sheds were occupied by 308 units. Of these, 219 units were working and 89 units were not working.

6.37. The raw materials distributed during the year include iron and steel, coal, paraffin wax, titanium dioxide and components required for bus body fabrication. The value of raw materials distributed amounted to Rs. 1553 lakhs. The sales turn over of small scale products reached to Rs. 88.63 lakhs, of which Rs. 44.25 lakhs was realised through the sales emporia opened by the Corporation. The marketing programme has benefitted 81 small scale units during the year.

6.38. The Small Industries Service Institute (SISI), a field agency of Small Industries Development Organisation, provides technical and managerial services to existing as well as prospective small industries in Kerala and Lakshadweep. It undertakes broad range of activities both promotional and developmental such as technical assistance, economic information, industrial management and training, entrepreneurial development programmes, marketing assistance, assistance to district industries

programmes, modernisation of selected industries, export promotion etc. The Institute works in close co-operation with the Directorate of Industries and Commerce, Small Industries Development Corporation, Kerala Financial Corporation, commercial banks and other agencies connected with small industries development. The multi faceted functions of the institute is carried out through its main office at Trichur and Extension Centres at Alleppey, Shoranur, Calicut and footwear service centre and central workshop at Trichur.

6.39. The technical consultancy offered by the institute includes selection of the product, plant and machinery, plant lay-out, appropriate technology, raw materials, process know-how, preparation of project reports and feasibility reports and other aspects of production. The information on industry-wise prospect reports, feasibility studies, market surveys and aspects on suitable manufacturing lines are offered to needy entrepreneurs. As part of the overall industrial extension services, the Institute provides management consultancy covering areas like financial management, production and marketing management, inventory control, quality control, financial analysis, working capital management, labour laws, Factories Act, Sales Tax Act etc. Besides, entrepreneurial development programmes to motivate prospective entrepreneurs to start small scale industries are organised for technically qualified, educated unemployed, woman and other weaker sections. The services rendered for export promotion include dissemination of information about foreign markets, consultancy services in matters of export procedures, identification of small scale units already possessing necessary equipment and skills to undertake production of items having export potential, organisation of training programmes on export marketing, maintaining liason with concerned export development agencies etc. One of the recent developments was the establishment of the SIDF, (Small Industries Development Fund) by the IDBI to provide refinance assistance for the development, expansion, modernisation and rehabilitation of small scale industries.

Khadi and Village Industries

6.40. The Kerala Khadi and Village Industries Board is working for the development of Khadi and Village Industries in the State by using the finance provided by the Khadi and Village Industries Commission. It provides employment opportunities to a large number of rural people through its various production centres, registered institutions and co-operative societies. During the year 1987-88, the Board could provide employment to 1.74 lakh persons as against 1.61 lakhs in the previous year. An amount of Rs. 21.32 crores was paid as wages to the workers during the year compared to Rs. 19.55 crores in 1986-87. The total employment and wages increased by about 8.1% and

9.1% respectively over the previous year. The value of production of khadi cloth increased from Rs. 236.00 lakhs in 1986-87 to Rs. 247.00 lakhs in 1987-88. The sales value also recorded an increase during the year compared to previous year. The sales value increased by about 38% over Rs. 291 lakhs in the previous year. However, employment in the khadi sector decreased by 6.3 per cent from 14,941 in 1986-87 to 14,000 in 1987-88. The value of production of Village Industries showed a marginal decrease in 1987-88 compared to previous year. It has decreased from Rs. 46.06 crores in 1986-87 to Rs. 46.03 crores in 1987-88. The sales turnover during the period was Rs. 48.51 crores against Rs. 48.26 crores in 1986-87.

6.41. The details relating to production, sales turnover, employment and wages in Khadi and Village Industries sector are given in Appendix-6.23.

Coir Industry

6.42. Coir industry occupies the foremost place among traditional industries in Kerala. About 80 to 85% of the coir and 90% of coir products produced in the country is in this State. The total number of workers in coir industry in Kerala is estimated to be 4.30 lakhs of which 75% are women. In order to improve the working conditions of labourers and increase productivity, the Government have adopted a strategy of 'Co-operativisation Programme' in order to bring at least 60% of the coir workers under co-operative fold.

6.43. There were 825 coir co-operative societies in Kerala as on 31-3-1988 as against 821 societies on 31-3-1987. Of these only 413 societies were working. 117 newly registered societies have not started functioning, 68 are dormant and 192 societies are under liquidation. The Kerala State Co-operative Coir Marketing Federation Ltd. (Coirfed) is undertaking the marketing of coir and coir products manufactured in the co-operative sector.

6.44. During the year 1987-88 the primary coir co-operatives purchased 1338 lakh of husks valued at Rs. 247.00 lakhs as against 1264 lakh husks worth Rs. 152.00 lakhs purchased during the previous year. The actual direct employment in the co-operative sector increased from 74753 in 1986-87 to 75331 at the end of 30-6-1988. The production of coir and coir goods in the co-operative sector was 11972 M.T. valued at Rs. 1,193.77 lakhs during the year under review. The value of production increased by 8.8 per cent during the year over the previous year's production valued at Rs. 1097 lakhs.

6.45. The export of coir and coir products from India recorded a marginal increase during 1987-88 compared to the previous year. During 1986-87, the export from India was 22214 tonnes valued at Rs. 3144.46 lakhs. This has increased to 25147.10 tonnes valued at Rs. 3219.74 lakhs

during the year 1987-88. In order to promote the sale of coir and coir products in the internal market, Government continued to give 20% rebate for the sale of coir and coir goods for 90 days during 1987-88. An amount of Rs. 66,78,386 was disbursed as rebate during the year.

6.46. The single point levy system was not successful enough for collection of the required quantity of husk by the coir co-operatives. Hence, the Government of Kerala as per Notification No. 12910 E3 88/ID. dated 20-4-1988, introduced a three point levy system for collection of husk and the three point levy system is being implemented from May 1988.

6.47. Non-availability of raw husk at reasonable price, inadequacy of working capital with the coir co-operatives societies, decline in export market, huge accumulation of unsold stock due to slump in the market etc., are the major problems facing the industry.

6.48. The number and other working details of the different types of societies are given in Appendices 6.24 to 6.26.

Handloom Industry

6.49. There were about 95000 handlooms in the Kerala State providing direct employment to about 1.5 lakh persons and indirect employment to 1 lakh persons. The coverage of handlooms in the co-operative sector increased to 58500 in 1987-88 from 58000 in the previous year. The effective coverage of looms by the co-operative sector increased from 37,500 in the previous year to 39,200 during the period under review. There were 585 primary handloom weavers co-operative societies in the State.

6.50. The production of handloom cloth in the co-operative sector increased to 53.25 million metres valued at Rs. 32.50 crores in 1987-88 from 50.40 million metres valued at Rs. 31.49 crores in the previous year. The sales of handloom cloth in the co-operative sector increased from 51.45 million metres valued at Rs. 32.00 crores in 1986-87 to 52.05 million metres costing Rs. 33.00 crores in 1987-88.

6.51. In the corporate sector there were 6370 looms during 1988 and 6348 looms at the end of 1987. The production of handloom cloth in the corporate sector increased to 2.55 million metres valued at Rs. 2.31 crores in 1987-88 from 2.05 million metres valued at Rs. 1.93 crores in the previous year.

6.52. The number of looms in the unorganised sector decreased to 30130 during 1988 from 30652 at the end of the year 1987, while the production of cloth increased marginally during the period. The quantity of cloth produced in the unorganised sector was 42.00 million metres at the end of the year under review while during the previous year the quantity was only 41.02 million metres. The productivity of handlooms in the unorganised sector was higher (1344 metres per loom) than that in the co-operative sector (910 metres per loom). However, when only the effective number of looms in the co-operative sector is taken into consideration, the productivity in the co-operative sector is marginally higher at 1358 metres per loom.

6.53. The total budget provision (plan and non plan) for Handloom Industry for the year 1987-88 was Rs. 832.05 lakhs, of which the expenditure was Rs. 819.34 lakhs. 850 Harijan/Girijan families were benefited by implementing various developmental schemes under the Special Component Plan and Tribal Sub Plan. Under the scheme of construction of house cum worksheds to handloom weavers, 162 rural worksheds, 3 urban worksheds and 283 other types of worksheds were constructed during 1987-88.

6.54. In order to increase the sale of handloom cloth Government continued to give rebate for the sale of handloom products during festival seasons in 1987-88. An amount of Rs. 480.00 lakhs was disbursed as rebate during the year. Subsidy was also given for the production of Janatha cloth to the State Handloom Apex Society and Handloom Development Corporation. In the co-operative sector, Apex Society and Hanveev together produced 0.938 million sq. metres of Janatha cloth out of a target of 3.00 million sq. metres. The shortfall in production is due to the higher cost of production compared to other States. The value of unsold stock in the co-operative and corporate sectors together increased to Rs. 28.65 crores during the year under review from Rs. 26.30 crores in the previous year. The details regarding production, productivity, value of unsold stock, etc., are furnished in Appendix 6.27.

6.55. The Kerala State Handloom Weavers Apex Society (Hantex) has 385 members on the rolls consisting of 382 primary handloom weavers co-operative societies. The paid up capital of the Apex Society was Rs. 2.58 crores as on 31-12-1988 against an authorised share capital of Rs. 5.00 crores. During the year under review, Hantex purchased yarn worth Rs. 2.20 crores, distributed yarn worth Rs. 2.45 crores to primary societies and procured handloom cloth worth Rs. 8.79 crores from them. The sales turn over of the society increased to Rs. 10.00 crores in 1987-88 from Rs. 8.77 crores in 1986-87. The working results of the Handloom Apex Society are furnished in Appendix 6.28 (a).

6.56. The Kerala State Handloom Development Corporation started functioning in 1969 for assisting handloom weavers outside the co-operative fold. The total number of looms covered by the Corporation at the end of 1987-88 was 6370. The paid up capital and Gross Block of the KSHDC are Rs. 192.14 lakhs and Rs. 82.72 lakhs respectively. The working results of the Kerala State Handloom Development Corporation, Cannanore are furnished in Appendix 6.28 (b).

6.57. The Corporation has a garment factory (Kerala Garments Ltd.) with an installed capacity to manufacture 3 lakh shirts per annum. The Company has produced 1.11 lakh pieces of garments during the year ended 30-9-1987 and realised Rs. 26.44 lakhs as stitching charges.

6.58. In spite of various development programmes implemented at the National and State levels to revive the handloom industry, it is still facing problems like accumulation of unsold stock, scarcity of raw materials and competition from the mill sector. Further the handloom sector is not getting the required count and quantity of yarn at reasonable prices.

6.59. The details regarding production and productivity in powerloom sector are furnished in Appendix 6.29.

Cashew Industry

6.60. There are 264 cashew factories in the State employing about 1.07 lakh persons, as at the end of December 1987. This accounted for only 2.2 per cent of the total number of registered factories in the State but 35.8 per cent of the total number of factory labourers. Quilon District accounted for 85.6 per cent of the factories and 83.5 per cent of the labourers.

6.61. Government of Kerala reintroduced the system of monopoly procurement in the 1988 cashew season, after a lapse of six years in order to process the maximum quantity of internal production of cashewnut within the State itself so that maximum possible number of days of employment could be provided to the cashew workers. The task of procurement has been entrusted with the Kerala State Cashew Workers Apex Industrial Co-operative Society, Ltd. No. IND (SI) 12 (CAPEX) Quilon. A target of 100,000 tonnes of rawnut was fixed for procurement during 1988 cashew season. But only 63,000 tonnes could be procured. The procurement price fixed ranged between Rs. 11.50 and Rs. 13.00 per Kg. and the selling price from Rs. 13.00 to Rs. 14.50 per Kg. The District wise details of raw nuts procured during 1988 cashew season, procurement price and selling price are furnished in the following Table.

Table 6.4

District-wise Quantity of Raw nuts Procured in 1988 cashew season.

District	Quantity M.T.	Procurement Price (Rs./Kg)	Selling Price to Facto- ries (Rs./Kg.)
(1)	(2)	(3)	(4)
1. Trivandrum	2,343	11.50	13.00
2. Quilon	6,453		
3. Pathanamthitta	1,993		
4. Alleppey	1,599	12.00	13.50
5. Kottayam	1,574		
6. Ernakulam	1,147		
7. Idukki	670		
8. Trichur	6,364	12.50	14.00
9. Palghat	2,208		
10. Malappuram	9,570		
11. Kozhikode	4,552	13.00	14.50
12. Wayanad	598		
13. Cannanore	15,966		
14. Kasaragod	8,012		
TOTAL STATE:	63,049		

Source: CAPEX

37/1052/MC.

Kerala State Cashew Development Corporation

6.62. The Kerala State Cashew Development Corporation was formed during 1969-70, in order to take over the closed down factories so that minimum wages and better working conditions could be provided to the workers. The corporation had under its control 34 factories upto July 1988, when it took over another 36 factories closed down by the private processors, making the total number of factories under the corporation to 70. Consequently the number of workers under the corporation increased from 29860 to 54,860 and the paid up share capital from Rs. 2995.77 lakhs to Rs. 3058.95 lakhs. The corporation could process 27530 tonnes of raw nuts valued at Rs. 4433.00 lakhs during 1987-88 and provide employment for 104 days to its workers during 1987-88. The production of cashew kernels in 1987-88 was 6510 tonnes against 4658 tonnes in 1986-87. The quantity and value of cashew Kerala exported by the corporation increased from 4430 tonnes worth Rs. 3605.00 lakhs in 1986-87 to 4934 tonnes valued at Rs. 4455 lakhs in 1987-88. The total sales turn over during the year under review was 5415 tonnes of cashew kernels valued at Rs. 4491.32 lakhs and 1099 tonnes of cashew shell liquid valued at Rs.86.94 lakhs.

Kerala State Cashew Workers Apex Industrial Co-operative Society Ltd. (CAPEX)

6.63. CAPEX was registered on 9-8-1984 for taking over the closed cashew factories and organising them into industrial co-operative societies. As at the end of 1987-88 CAPEX had 9 Societies with a membership of 4540. Monopoly procurement of cashewnut during 1988 cashew season was entrusted with the CAPEX. During 1987-88 CAPEX could process only 1742 tonnes of cashewnuts worth Rs. 242.00 lakhs against 5640 tonnes valued at Rs. 895.00 lakhs processed in the previous year. During the year under review, the society could export only 764.68 tonnes of cashew kernels worth Rs.443.51 lakhs, as against 1364.43 tonnes valued at Rs. 1141.00 lakhs exported during 1986-87.

6.64. The foreign exchange earnings from cashew showed a marginal decrease during 1987-88 compared to the previous year. Earnings fell from Rs. 266.11 crores in 1986-87 to Rs. 259.49 crores in 1987-88. The quantity and value of cashew kernels exported declined by about 11.5% and 3.4% respectively over the previous year. Export of cashew shell liquid increased to 5584 tonnes valued at Rs.4.03 crores compared to 2716 tonnes valued at Rs. 1.46 crores during 1986-87. Raw cashewnut imported during 1987-88 declined to 42256 tonnes valued at Rs. 67.25 crores against 49,045 tonnes valued at Rs. 69.49 crores in 1986-87.

Scarcity of raw nuts and the consequent under employment to over one lakh cashew workers is the single major problem facing the cashew industry in the State.

6.65. The details on foreign exchange earnings from cashew industry and import of raw cashewnuts into India are given in Appendix Tables 6.30 and 6.31 respectively.

Handicrafts

6.66 The major handicrafts of Kerala are ivory carving, wood and horn carving, bell metal casting, lapidary works, screwpine and mat weaving, bamboo and reed weaving, cane and rattan work, coconut shell carving and paddy straw picture making.

6.67 The workers engaged in this industry are not getting full time employment due to scarcity of raw materials, especially ivory and rosewood. There is difficulty in the marketing of handicrafts products too.

6.68 Handicrafts Development Corporation of Kerala Ltd. was set up in 1968 to help the craftsmen engaged in handicrafts industry. The Corporation buys handicraft products directly from craftsmen offering fair prices and sells through its emporia. The Corporation's major source of fund is the share capital contribution by Government.

6.69 The performance of the Corporation during the year 1987-88 was good. Total sales of handicrafts goods during the year was worth Rs. 245.00 lakhs against Rs. 212.00 lakhs in 1986-87. In 1987-88 the value of goods sold within Kerala amounted to Rs. 111.00 lakhs, to other parts of India Rs. 121.58 lakhs and outside India Rs. 12.42 lakhs. It has made a nominal profit of Rs. 0.15 lakh in 1986-87 and Rs. 0.30 lakh in 1987-88. The Corporation exported goods worth Rs. 20.64 lakhs. The paid up capital of the Corporation as on 31-3-1988 was Rs. 148.24 lakhs and there were 191 employees on the rolls of the Corporation at the end of the Year.

6.70 The Corporation is conducting a number of product promotion programmes and exhibitions throughout the country with the assistance of the Office of the Development Commissioner (Handicrafts), New Delhi. The Corporation will be fully commissioning new show rooms at Quilon and Kodalkanal and also renovate the existing show rooms namely SMSM Institute at Trivandrum and Kairali, in Bombay. It is also planned to establish a raw material-cum-procurement centre at Ernakulam.

6.71 Kerala Artisans' Development Corporation registered on 1-10-1981 is a welfare oriented Corporation constituted by the Government of Kerala with a view to providing package of assistance to the artisans belonging to the carpentry, blacksmithy, goldsmithy, bronze, coppersmithy, masonry, pottery and shoe making trades. For this purpose the Corporation is implementing Primary Production Unit Scheme, Composite Term Loan Scheme etc. Under the Composite Term Loan Scheme the Corporation could channelise an amount of Rs. 60.00 lakhs from Nationalised Banks during 1987-88 to many artisans all over Kerala. The share capital of the Corporation was Rs. 20.56 lakhs and its net loss for the year was Rs. 7.12 lakhs. Now the Corporation is proposed to take up a scheme on marketing of artisans' products. As an experiment the Corporation has a proposal to open a sales depot in Trivandrum for marketing the products.

Bamboo Industry

6.72 The Kerala State Bamboo Corporation was established in 1971 for the promotion of bamboo and reed based traditional cottage industry. There were about 3 lakhs of traditional bamboo workers in the State. Equitable distribution of raw materials to workers and procurement and marketing of the finished products made by them are the main functions of the Corporation. Government have allotted 30,000 M.T. of reeds per annum to the Corporation for distribution to traditional workers. The Corporation procures the entire finished products made by the workers at a reasonable support price and market the same. Corporation has at present 78 reeds distribution/mats procurement centres. Traditional bamboo industry is concentrated in Angamaly-Kalady area in Ernakulam District and Nedumangad-Aryanad area in Trivandrum District. At present 2500 reed cutters, 15000 weaver families and 1000 other workers are directly attached to the Corporation. They are getting their wages on piece-rate basis direct from the Corporation.

6.73 The paid up share capital of the Corporation as on 31-3-1988 was Rs. 96.20 lakhs. There were 191 employees on the rolls of the Corporation at the end of the year under report. During 1987-88, the corporation collected and distributed 71.46 lakh reeds and procured 6.50 lakh sq.ft. of bamboo mats for sales. Total value of sales during the year was Rs. 252.39 lakhs. Non-availability of reed had adversely affected the activities of the Corporation. The net loss of the Corporation for the year was Rs. 30.00 lakhs. In order to ensure a steady market for bamboo mats, the Corporation has taken up a project for making Resin Bonded Bamboo Boards using bamboo mats in place of plywood. Corporation has also got a diversification programme for developing bituminised bamboo mats for roof cladding for low cost houses and collapsible package box with bamboo boards.

Beedi Industry

6.74 Though the beedi industry in Kerala is predominantly unorganised the co-operativisation of the sector in certain areas of the State has enabled the industry to sustain. There are seventy beedi industrial co-operative societies including two central societies in the State as on 30-6-1987. Of these, the Kerala Dinesh Beedi Workers' Central Co-operative Society and its 22 primary societies play a dominant role in promoting the industry. The society provided employment to 33,518 workers during 1987-88. The total number of beedies manufactured during the year under the label of 'Dinesh Beedi' was 730.05 crores valued at Rs. 34.97 crores. During the year the production increased by 1.5% while the rise in value was 5%. The value of raw materials consumed by the society amounted to Rs. 8.48 crores and the wages, salaries and bonus paid to the workers and staff of the primary and central societies amounted to Rs. 21.44 crores. The sale proceeds of the society was 36.17 crores. More than 99 per cent of the raw materials consumed by the society is imported from other states while about 89 per cent of the sales proceeds of the product is realised from the domestic market. The net profit of the society during 1987-88 was Rs. 31.51 lakhs.

Performance of State Public Sector Industries

6.75 Eleven companies among the 38 State public sector industrial undertakings the data relating to which are available were working on profit during 1987-88. They together earned a profit of Rs. 3.70 crores while the remaining 27 companies were incurring loss during this period. The total loss incurred by these companies during 1987-88 amounted to Rs. 42.72 crores. The accumulated loss of 29 companies increased to Rs. 210.27 crores by the end of March 1988. The paid up capital, total borrowings and the investment in terms of gross block of these companies stood at Rs. 161.96 crores, Rs. 385.50 crores and Rs. 309.40 crores respectively as on 31-3-1988. The group-wise working results of the State public sector industrial undertakings are given in Appendix-6.32.

6.76 The performance of certain State sector industrial units during the period under review was not encouraging. Some of them including five subsidiary companies of Kerala State Industrial Enterprises Ltd., were incurring loss continuously for the last few years. The Malabar Cements Ltd., Kerala Minerals and Metals Ltd., Transformers and Electricals Kerala and Kerala Automobiles Ltd., are some of the major companies working on loss continuously. The total accumulated loss of 25 companies stood at Rs. 227.36 crores against their paid up capital of Rs. 98.55 crores as on 31-3-1988. The details of companies whose accumulated loss exceeded their paid up capital are given in Table-6.5.

Table 6.5

Details of State Public Sector Manufacturing Companies Whose Accumulated Loss Exceeded their Paid up Capital

(Amount in Rs. lakhs)

Name of Company	Paid Up Capital as on 31-3-1988	Accumulated/loss as on 31-3-1988
(1)	(2)	(3)
<i>Keltron Group</i>		
1. Keltron Counters Ltd.	233.90	317.72
2. Kealtron Electro Ceremics Ltd.	100.29	239.50
3. Keltron Power Devices Ltd.	190.23	677.30
4. Keltron Resistors Ltd.	69.81	162.50
5. Keltron Rectifiers Ltd.	169.36	461.56
<i>Keltron State Industrial Enterprises Group</i>		
6. Kerala Soaps and Oils Ltd.	186.00	1305.00
7. Travancore Plywood Industries Ltd.	48.58	316.89

	(1)	(2)	(3)
8. Kerala State Detergents and Chemicals Limited	154.63	510.31	
9. Kerala State Drugs and Pharmaceuticals Limited	420.00	776.71	
10. Kerala Ceramics Ltd.	872.32	1083.87	
<i>Chemical</i>			
11. Malabar Cements Ltd.	1528.64	1642.84	
12. Kerala Minerals and Metals Ltd.	2892.27	6089.50	
13. Trivandrum Rubber Works Ltd.	437.63	1270.92	
<i>Textiles</i>			
14. Trivandrum Spinning Mills Ltd.	184.99	414.67	
15. Sitaram Textiles Ltd.	267.00	1252.13	
<i>Electricals and Cables</i>			
16. United Electrical Industries Ltd;	240.07	371.89	
17. Transformers and Electricals Kerala Ltd;	858.12	3926.92	
18. Metropolitan Engineering Company Ltd.	33.17	245.58	
<i>Ceramics and Refractories</i>			
19. Chalakudy Refractories Ltd.	134.47	222.74	
20. Kerala Clays and Ceramic Products Ltd.	1.82	3.74	
<i>Wood based</i>			
21. Forest Industries (Travancore) Ltd.	17.71	36.43	
22. Kerala State Wood Industries Ltd.	170.00	400.31	
<i>Agro-based</i>			
23. Meat Products of India Ltd.	124.10	141.89	
<i>Engineering</i>			
24. Kerala Automobiles Ltd.	270.00	513.00	
25. Steel and Industrial Forgings Ltd.	250.00	352.29	
Total	9855.11	22736.18	

Kerala Financial Corporation

6.77 The Kerala Financial Corporation (established in 1953) provides long term loans to small and medium scale industries to start new units and also to

expand, diversify or modernise the existing units. During 1987-88, the Corporation received 1425 applications for an aggregate amount of Rs. 5813.40 lakhs as against 1372 applications for Rs. 5956.33 lakhs during the previous year. The gross sanction during the year was 1033 applications for a total amount of Rs. 4063.45 lakhs, whereas the sanction during the previous year was 1234 applications for Rs. 4751.24 lakhs. The disbursement of loan during the year amounted to Rs. 3397.75 lakhs for 979 cases as against Rs. 2952.22 lakhs for 944 cases during the previous year. The aggregate amount of loan disbursed by the Corporation upto 31st March, 1988, rose to Rs. 17019.38 lakhs for 7969 beneficiaries. A summary record of loan operations of Kerala Financial Corporation as on 31st March, 1988 is given as Appendix—6.33.

6.78. The industrially backward areas of the State consist of Idukki, Wayanad, Alleppey, Malappuram, Cannanore, Kasaragod, Trivandrum and Trichur districts. The Corporation has given priority in sanction and disbursement of loans to industrial units in the above districts. More than 50 per cent of the amount of loan sanctioned and disbursed by the Corporation since 1953 was for units in the industrially backward areas. Appendix 6.34 provides district-wise details on number and amount of loan sanctioned and disbursed upto 31st March, 1988.

6.79. The Corporation gives priority for the growth and development of small scale industries in the State. As a result, the major portion of the loan advanced by the Corporation is channelised to the small scale sector. During 1987-88, the Corporation sanctioned loan to 1005 small scale units amounting to Rs. 3404.24 lakhs. This works out to 83.77% of the total amount sanctioned. More than 97% of the units assisted are in the small scale sector.

6.80. An analysis of the loan sanctioned and disbursed by the Corporation to small scale sector shows transport and food manufacturing units absorb the major share. About 18 per cent of the loan sanctioned and disbursed to small scale sector during 1987-88 was gone to transport sector while the share of food manufacturing units was 11.89%. The details on industry-wise classification of loans sanctioned and disbursed to small scale sector are furnished in Appendix—6.35.

6.81. The Corporation continued its drive to collect the loan arrears from loanees. The total amount of arrears at the beginning of the year (1987-88) was Rs. 3555.00 lakhs. Added to this was an amount of Rs. 2450.00 lakhs that fell due during the year. An amount of Rs. 1760.00 lakhs was collected during the year and thus the total arrear at the end of the year amounted to Rs. 4245.00 lakhs.

6.82. The share capital base of the Corporation increased from Rs. 12.60 crores in 1986-87 to Rs. 14.60 crores in 1987-88. The increase was due to the contribution of Rs. 100.00 lakhs each by the Industrial Development Bank of India and the State Government.

Kerala Industrial and Technical Consultancy Organisation Ltd. (KITCO)

6.83. The KITCO was established with the objective of providing total consultancy to small entrepreneurs, from concept to commissioning of projects.

The consultancy services offered by the organisation include counselling in selection of projects, preparation of detailed project reports, market surveys, detailed engineering and design services, industrial potential surveys, identifying growth centres, motivation of viable project ideas and selection and development of entrepreneurs through structured training programmes. Besides, the needs of industrialists for expansion, modernisation and diversification of industrial units are also being catered to by the organisation.

6.84. During 1987-88 a total number of 140 project reports involving an investment of Rs. 18.77 crores was completed as against 68 project reports involving an investment of Rs. 19 crores completed during the previous year. Most of the reports completed were for projects belonging to tiny sector. Besides, six appraisal reports involving a total investment of Rs. 2.28 crores and employment potential of 176 persons were completed as against seven appraisal reports completed during the previous year. A study on the industrial units in Ernakulam district, which was sponsored by the Kerala Financial Corporation, to assess the potential for revival and rehabilitation of 100 units financed by the Corporation was completed in record time. Another important activity carried out by the organisation is the close monitoring of large industrial projects during the implementation state. Under this scheme, the projects like the Kerala Minerals and Metals Ltd., the Malabar Cements Ltd., and Steel and Industrials Forgings are being monitored by KITCO.

6.85. Entrepreneurship development programme was one of the major activities undertaken by the organisation. Altogether, 26 programmes were assigned during the year, out of which 20 were successfully completed. A total number of 519 prospective entrepreneurs were trained in the 20 programmes completed, out of whom 43 persons (8.3%) have set up their units, 25 persons (4.8%) have been sanctioned loans while 45 persons (8.7%) are waiting for sanction of loans.

6.86. KITCO has made its mark in the field of detailed engineering and turn-key implementation of projects. The projects now being executed under the programme are the revamping of the Chalakkandy Refractories, the Prawn Hatchery Project of MPEDA, etc.

6.87. The paid up share capital of the organisation remained as Rs. 15 lakhs during the year 1987-88. The gross turn over increased from Rs. 34.12 lakhs in 1986-87 to Rs. 38.60 lakhs in 1987-88, registering an increase of 15.3%. The total expenditure during the year was Rs. 38.41 lakhs as against Rs. 33.63 lakhs during the previous year.

Central Public Sector Investment

6.88. The Central investment in terms of gross block in the public sector industries working in Kerala increased to Rs. 1074 crores by the end of March, 1987 which accounted for 1.58 per cent of the total Central sector investment in the country. The increase in the Central investment in the State during 1986-87 was only Rs. 151 crores which constituted a nominal share of 1.34 per cent in the total additional investment of Rs. 11,246 crores made by the Central Government during this period in the country. The

share of the State in the total Central public sector investment stood around 1.6 per cent for the past two years. The declining trend in the percentage share of the State in the Central industrial investment was noticed from 1975-76 onwards. It came down from 3.24 per cent to 1.58 per cent over the last 12 years. The data relating to the Central investment in Kerala and its percentage share in the total investment in the country are furnished in Table 6.6.

Table 6.6

Central Sector Industrial Investment in Kerala

Year	Investment (Gross Block) as on 31st March		Percentage of Column (3) to Column (2)
	Investment in Rs. Crores.		
	All India	Kerala	
(1)	(2)	(3)	(4)
1970	3885	116	2.99
1975	6242	202	3.24
1980	18161	423	2.33
1985	47323	831	1.76
1986	56806	923	1.62
1987	68052	1074	1.58

Source: (i) Bureau of Public Enterprises, Government of India.

(ii) Centre for Monitoring Indian Economy.

6.89 An analysis of the State-wise distribution of Central investment in the country shows that the States of Maharashtra, Madhya Pradesh, Bihar and Andhra Pradesh have received the major portion of the amount invested by the Central Government. These four States received 48.8 per cent of the total investment of Rs. 68052 crores. Moreover these States continued to get the major share of additional investment. About 51% of the additional investment of Rs. 11246 crores during 1986-87 was in these four States. The State-wise distribution of Central sector investment in terms of gross block as on 31st March 1986 and 1987 is given in Appendix 6.36.

6.90 Following eighteen manufacturing Central sector undertakings were working in Kerala during 1987-88.

1. Cochin Refineries Ltd., Ambalamugal, Cochin.
2. Cochin Shipyard Ltd., Cochin.
3. Fertilisers and Chemicals Travancore Ltd. Udyogamandal and Cochin.
4. Hindustan Latex Ltd., Peroorkada, Trivandrum.
5. Hindustan Newsprint Ltd., Mevvelloor, Kottayam.
6. Indian Rare Earths Ltd., Udyogamandal, Cochin and Chavara, Quilon.
7. Indian Telephone Industries Ltd., Kanjikode, Palghat.
8. Hindustan Insecticides Ltd., Udyogamandal, Alwaye.
9. Instrumentation Ltd., Kanjikode, Palghat.
10. Modern Food Industries (India) Ltd., Edappally, Cochin.
11. H.M.T. Limited, Kalamassery, Alwaye.
12. Balmer Lawrie and Co. Ltd., Aroor, Alleppey

13. Hindustan Organic Chemicals Ltd., Ambalamugal, Cochin.

Units managed by National Textile Corporation

14. Cannanore Spinning & Weaving Mills Cannanore.
15. Vijayamohini Mills, Thirumala, Trivandrum.
16. Kerala Lekshmi Mills, Trichur.
17. Alagappa Textiles (Cochin) Mills, Trichur.
18. Parvathy Mills, Quilon.

6.91 All these companies except Cochin Refineries Ltd., Cochin Shipyard Ltd., Fertilisers and Chemicals Travancore Limited and Hindustan Newsprint Ltd., have units outside Kerala. The Central sector companies in the State provided employment to more than 24000 persons directly during 1987-88. The FACT Limited alone employed 8216 persons during this period. Certain basic details including capital invested, employment, value of production, sales turnover and capacity utilisation in respect of the Government of India Companies in the State are furnished in Appendix tables 6.12 to 6.15.

6.92 Ten Central sector units among those who have furnished details regarding their performance during 1987-88 lost total of 127,915 mandays during this period due to various reasons such as strike and power cut. The value of production lost on account of this has been estimated at Rs. 24.20 crores. The value of production lost by the FACT Limited during 1987-88 due to power cut and one day 'Bandh' sponsored by the national trade unions was estimated at Rs.12.54 crores. The cause-wise details of mandays lost and loss of production in these companies are given in Table 6.7.

Table 6.7

Details of Mandays Lost and Production Loss in the Government of India Companies during 1987-88

Name of Company	Mandays lost (Nos.)	Production Lost (in Rs. lakhs)	Main Reasons
(1)	(2)	(3)	(4)
1. Cochin Refineries Ltd.	Nil	Nil	..
2. Cochin Shipyard Ltd.	5599	30.49	Strike
3. Hindustan Organic Chemicals Ltd.	Nil	Nil	..
4. H.M.T. Limited	6329	30.22	Strike
5. Hindustan Newsprint Ltd.	2950	Nil	"
6. Fertilisers and Chemicals Travancore Ltd.	10721	1254.00	Power cut and one day 'Bandh'
7. Hindustan Insecticides Ltd.	1457	463.85	Power cut and strike
8. Modern Food Industries (India) Ltd.	181	2.00	Strike
9. Instrumentation Ltd.	6927	225.24	Strike and power cut
10. Balmer Lawrie & Co. Ltd.	22251	142.75	Strike and Lock out
11. Vijayamohini Mills	28016	119.60	Power cut and Lay-off
12. Alagappa Textiles (Cochin) Mills	44084	152.29	Strike and Power cut.
Total	127915	2420.44	

Industrial Disputes

6.93 The provisional data furnished by the Department of Economics and Statistics show that there were 98 disputes in the industrial sector of Kerala during 1987. (The number of industrial disputes remained to be the same as in the previous year). This led to work stoppages affecting 40,119 workers as against 132,912 workers in the previous year. The total number of mandays lost on account of this has come down to 21.01 lakhs in 1987 from 23.11 lakhs in 1986. The number of workers affected in the plantation sector during 1987 was only 14,288 as compared to 92,297 in the previous year. Though the number of disputes in this sector rose to 20 during 1987 as against 13 in 1986, the number of mandays lost was only 1.22 lakhs as compared to 3.42 lakhs in 1986. The textile sector suffered a loss of 12.53 lakh mandays during 1987 as compared to 12.44 lakhs in 1986. The industry-wise details of disputes occurred in the State during 1986 and 1987 are given in Table 6.8.

Table 6.8

Industrial Disputes Resulting in Work Stoppages in Selected Industries in Kerala during 1986 and 1987

Industry	1986			1987*		
	No. of Disputes	No. of workers affected	Man-days Lost (in thousand)	No. of Disputes	No. of workers affected	Man-days Lost (in thousand)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Plantation	13	92297	342	20	14288	122
2. Textiles	6	7139	1244	8	5659	1253
3. Coir	1	215	66	3	565	77
4. Sawmill	1	650	4	2	184	3
5. Tiles	6	3313	54	8	2330	226
6. Cashew	..	..	..	..	..	..
7. Others	71	29298	601	57	17093	320
Total	98	132912	2311	98	40119	2001

*Provisional

Source: Department of Economics and Statistics.

Production Loss in State Public Sector Industries

6.94 Some of the State public sector manufacturing companies lost a number of mandays due to various reasons such as power cut, lay off, shortage of raw materials etc. during 1987-88. This has led to production loss in many of these companies. Fifteen companies among those furnished details, lost a total number of 88,332 mandays during 1987-88 the major reason for this being the power cut imposed in the State during this period. The total loss of production in these companies has been estimated at Rs. 22.93 crores. The Kerala Soaps and Oils Ltd. lost a total mandays of

62673 during 1987-88 due to shortage of raw materials etc., the production loss on account of which has been estimated at Rs. 6.56 crores. The Travancore Cochin Chemicals Ltd. had a production loss of Rs. 8.60 crores. United Electrical Industries Ltd. lost 11700 mandays resulting in a production loss of Rs. 29 lakhs during 1987-88. The details of mandays lost and the loss of production due to various reasons in fifteen State Public Sector manufacturing companies during 1987-88 are given in Table 6.9.

Table 6.9

Details of Mandays Lost and Production Loss in the State Public Sector Manufacturing Companies during 1987-88

Name of Company	Total Mandays Lost (Nos.)	Total Loss of Production (Rs. in lakhs)	Main Reasons
(1)	(2)	(3)	(4)
1. Kerala Soaps and Oils Ltd.	62673	656.00	Shortage of raw materials, mechanical maintenance etc.
2. Kerala Electrical and Allied Engineering Co. Ltd.	85	54.27	Power cut
3. Steel and Industrial Forgings Ltd.	124	116.00	Powercut, absenteeism
4. Kerala Minerals and Metals Ltd.	779	114.00	Power cut, strike etc.
5. Malabar Cements Ltd.	1025	18.00	Strike etc.
6. Trivandrum Spinning Mills Ltd.	8109	67.41	Lay off
7. Kerala Agro Machinery Corporation Ltd.	75	..	Strike
8. Meat Products of India Ltd.	69	1.00	Strike
9. Keltron Crystals Ltd.	1728	10.28	Power cut
10. Keltron Magnetics Ltd.	22	6.52	Power cut
11. Keltron Resistors Ltd.	532	6.04	Power cut
12. Travancore Cochin Chemicals Ltd.	..	860.00	Power cut
13. Travancore Cements Ltd.	..	289.00	Power cut etc.
14. United Electrical Industries Ltd.	11700	29.00	Power cut
15. Metal Industries Ltd.	1411	6.02	Power Cut & lay off
Total	88332	2233.26	

Mining

6.95 The mineral exploration activities conducted by the Department of Mining and Geology in respect of major minerals in the State were encouraging during 1987-88. Investigation for limeshell in 54 sq.kms. in Ashtamudi Lake proved the existence of about 0.17

million tonnes of minerals in an area of 1.96 sq.km. in Neendakara and in an around Dalavapuram. The thickness of the limeshell varies from 10 cm. to 150 cm. The investigation for silica sand in Shertallai taluk had proved a deposit of 7.3 lakh tonnes more than 60 per cent of which is found suitable for foundaries and glass making. Investigation including reconnaissance and exploratory drilling was carried out for clays (kaolinitic) over an area of 60 sq.km. in Kasargod district and good quality kaolinitic clays were identified at Pudukai. Drilling in the area adjoining to the Mine of Kerala Clays and Ceramic Products Ltd. a public sector company, proved a reserve of about 2.8 million tonnes. The preliminary investigation followed by detailed exploration taken up for brick and tile clays at Taliparamba over an area of 25 sq.km. revealed that good quality tile and brick clays are occurring in the low lying areas. Several gem bearing gravel beds above river water level were identified in Kulathupuzha region.

6.96 Production of certain mineral sands like ilmenite and sillimanite in 1987-88 remained almost

same as that of the previous year. While production of glass and white quartz sand, ball clay and limestone declined during 1987-88 as compared to the previous year, marginal increase was noticed in the production of china clay. The details of production and sale of major minerals and mineral sands in the state during 1986-87 and 1987-88 are furnished in Appendix tables 6.37 and 6.38.

6.97 The Kerala Mineral Exploration and Development Project continued its activities during 1987-88. The Project undertook the exploration and development of primary gold, placer gold, scheelite, gemstones, ornamental stones and the programme for geological follow-up during 1987-88. The project made an attempt to set up a pilot scale mining and beneficiation plant for graphite-a versatile industrial raw material-at Chirakkadavu in Kottayam district in technical collaboration with the National Metallurgical Laboratory, Madras. A detailed project report was also prepared.

TRANSPORT AND COMMUNICATIONS

Kerala's transport and communication infrastructure is fairly well developed. During the year under review, the total road length in the State increased by 1,259 km. to 113,545 km, out of which the length of surfaced roads is only 22,355 km. In respect of coverage, Kerala has a road length of 292 km per hundred sq.km. of area and 446 km. per lakh of population. The registration of motor vehicles in the State is ever on the increase. As against the total number of 4.14 lakh motor vehicles registered during 1986-87, the number of vehicles stood at 4.74 lakhs in 1987-88. It shows that there are 1,219 vehicles per hundred sq.km. of area and 1,861 vehicles per lakh of population. The passenger transport operations in the State are carried out both by private sector and by the public sector. Kerala State Road Transport Corporation is the only public sector undertaking for passenger transport, which accounts for 23 per cent of the total stage carriages in the State. Goods transport is the monopoly of the private sector.

7.2 The Railway route length in Kerala, consisting of 828 km. of broadgauge and 113 km. of metre gauge is one of the lowest in the country. Air traffic in the State is carried out by the Trivandrum, Calicut and Cochin Airports. Airport at Calicut was opened for traffic during the year under report. There are direct flights from Trivandrum to the Gulf countries, Colombo and Mali.

7.3 The State Water Transport Department (SWTD), Kerala Inland Navigation Corporation (KINCO) and the Water Transport Wing of Kerala Road Transport Corporation (KSRTC) are the three public sector agencies engaged in the Inland Water Transport Services in the State. While KINCO is mainly concerned with cargo transportation, the other two agencies are concerned with passenger transport. The SWTD's activities are centred around the districts of Quilon and Alleppey, whereas the KINCO

and KSRTC operate their services in and around Cochin. These three agencies together owned 96 passenger boats and the total passengers stood at 247 lakhs during the year. The volume of cargo handled registered an increase of 23 per cent in the case of KINCO, while that handled by SWTD declined by 46 per cent.

7.4 The cargo handled through the intermediate and minor ports of Kerala and the revenue earned thereby during the year under review declined by 8 per cent and 43 per cent respectively, compared to the preceding year. Among the 13 intermediate and minor ports, only Neendakara, Beypore and Azhikkal Ports handled cargo during the year under review. Neendakara alone transported 48.5 per cent of the total cargo and earned 58.2 per cent of the total revenue during the year 1987-88. The major port at Cochin handled 68.02 lakh tonnes of cargo as against 68.83 lakh tonnes in the previous year. This showed a decline of 1.18 per cent. During 1987-88, the export and import traffic through this port declined by 5.2 per cent and 0.3 per cent respectively, compared to the preceding year. In respect of container traffic, an increase of 6.6 per cent was noted.

7.5 The communication facilities in the State showed considerable progress over the years. The average area served by a post office in the State was 8.13 sq.km. in 1987-88. The corresponding figure relating to the preceding year was 8.20 sq.km. The All-India average in 1986-87 was 22.83 sq.km. The State had an average of 7 telephones per thousand population in 1986-87 while the corresponding All-India figure was 5.

7.6 Statistics relating to the transport and communications infrastructure and their growth over the years are furnished in Table 7.1.

TABLE 7.1

Growth of Transport & Communications infrastructure for the period from 1975 to 1988

Sl.No.	Item	Unit	1975	1980	1985	1986	1987	1988
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Road Length (PWD)	Km.	14870	17408	19107	19460	19752	19808
2	Road Length (Panchayats)	"	54812	66158	81515	81539	82913	85651
3	Motor Vehicles	Nos.	119720	174704	319259	361617	414310	473789
4	Passenger Buses	"	7828	8705	12910	13497	16704	18121
5	Goods Vehicles	"	15875	21121	40879	45325	51284	57888
6	Buses under KSRTC	"	2212	2935	3239	3070	3019	3219
7	Railway Route Length	Km.						
	(a) Broad Gauge	"	774	803	828	828	828	828
	(b) Metre Gauge	"	122	113	113	113	113	113
	Sub Total	"	896	916	941	941	941	941
8	Minor Ports	Nos.	10	11	9	9	10	10
9	Intermediate Ports	"	2	3	4	4	3	3
10	Traffic through Minor & Intermediate Ports:	Lakh Tonnes						
	(a) Export	"	17.30	1.87	1.49	0.99	0.75	0.74
	(b) Import	"	1.28	0.76	0.26	0.12	0.15	0.09

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11	Traffic through Cochin Port:							
	(a) Export	Lakh tonnes	12.82	11.10	3.90	7.19	12.85	12.17
	(b) Import	"	35.90	43.60	36.76	45.59	56.00	55.85
12	Length of Navigable Waterways	Km.	NA	1895	1895	1895	1895	1895
13	No. of Passenger Boats in Public Sector							
	(a) SWTD	No.	..	..	74	75	75	75
	(b) KINCO	"	68	76	8	8	8	9
	(c) KSRTC	"	..	..	12	12	12	12
14	Post Offices	"	4024	4512	4751	4748	4748	4782
15	Telephone Exchanges	"	286	441	561	584	608	621
16	Total Equipped Capacity	"	70410	104595	144462	162721	178821	193852
17	Public Call Offices	"	2352	2292	2766	2858	2944	2988

Roads

7.7 The total road net work of 113,545 km. in the State is maintained by various departments such as the National Highways, Public Works Department, Municipalities, City Corporations, Panchayats, Forests etc. Out of this, the road length maintained by the Public Works Department is only 19,808 km. and the total length of black-topped/metalled roads 20,556 km. The road length under different departments is given in Table 7.2.

TABLE 7.2

Length of roads in Kerala under different departments as on 31st March 1987 and 1988

		(Km.)		
Sl. Department No.		As on 31-3-1987	As on 31-3-1988*	Percent- age to total
(1)	(2)	(3)	(4)	(5)
1	National Highways	836	842	0.74
2	Public Works Department	19752	19808	17.45

(1)	(2)	(3)	(4)	(5)
3	Panchayats	84410	85651	75.43
4	Municipalities (including Corporations)	4666	4717	4.15
5	Forests	2022	2215	1.95
6	Others*	600	312	0.28
Total		112286	113545	100.00

* Provisional.

7.8 The length of National Highways in the State during the year under review stood at 842 km. showing an increase of 6 km. over that in the previous year. This 6 km. of road is the link road from Willington Island to Cochin by-pass and is shown under National Highway-47. The present length of 842 km. of National Highways comprises of 423 km. of N.H.47 and 419 km. of N.H.17. Addition to the Public Works Department road length during 1987-88 is 56 km. The road length under Panchayats increased by 1,241 km. while that under Municipalities and Corporations together increased by 51 km.

7.9 Black-topped and cement concrete roads constitute only 82 per cent of the total length of roads maintained by Public Works Department. The surface-wise distribution of Public Works Department roads in the State is furnished in Table 7.3.

TABLE 7.3

Distribution of Public Works Department Roads by type of surface as on 31-3-1988

		(Km.)				
Sl.No.	Category	Cement concrete	Black topped	Water Bound Macadam	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	State Highways	17.41	2019.88	13.15	..	2044.44
2	Major District Roads	8.26	5812.13	85.71	34.85	5940.95
3	Other District Roads	0.27	7726.82	549.05	697.19	8973.33
4	Village Roads	..	674.66	224.35	1950.56	2849.57
Total		25.94	16227.49	872.26	2682.60	19808.29

Source: Public Works Department.

* 'Others' denote roads maintained by Kerala State Electricity Board and Railways. Roads under Irrigation Projects are included in the roads maintained by Public Works Department.

7.10 The Public Works Department developed/improved 430 km. of road during 1987-88. The Department had also taken over 21 village roads having a length of 106.44 km. during the year. The District-wise lengths of roads improved/developed during 1987-88 are given in Appendix 7.1.

7.11 The roads wing of the Public Works Department has fifteen divisions in the State. It is to be noted that Kottayam Division has the maximum road length (1975 Km). About 89 per cent of this is black topped. Wayanad Division ranks the lowest in terms of road length (581 Km.) The Division-wise distribution of Public Works Department roads as on 1-4-1988 is given in Appendix 7.2.

7.12 The length of Panchayat roads in the State is about 85651 km. during the year under review. Out of this, only 5 per cent is black-topped/metalled and 60 per cent is earthen. The district-wise analysis of roads in the State showed that Quilon district has the maximum length of Panchayat roads (13,271 km.), whereas Wayanad district has the minimum (2378 km.). The district-wise length of roads, by type of surface, is given in Appendix 7.4.

7.13 Under the scheme 'MLA Roads', there are 279 roads having a total length of 1627 km. Out of this, 238 roads with a total length of 1306 km. were taken up for execution till the end of March 1988. Only 63 road works covering a total length 276 km. were completed during this period.

Road Transport

7.14 The road transport operations in the State are undertaken by the public sector and private sector. The Kerala State Road Transport Corporation, is the sole public sector agency, operating the passenger transport service in the State. But the private sector plays a predominant role both in passenger transport and goods transport. The goods transport by road is more or less the monopoly of the private sector.

7.15 The number of motor vehicles in the State registered an increase of 14.49 per cent during the year under review. Total number of vehicles registered during the year 1987-88 stood at 59,479. The growth in the number of motor vehicles in the State since 1975 is shown in Appendix 7.5. The density of motor vehicles in Kerala is high when compared to many other States in the Country. Kerala had 1,861 vehicles per lakh of population and 1,219 vehicles per hundred sq. km. of area during the year 1987-88. The corresponding All-India figures during 1986-87 were 1,612, and 336. The rates of growth in the number of motor cycles/scooters, cars and autorickshaws are higher than that of other categories. Scooters/motor cycles account for 39 per cent of the total motor vehicles in the State. At the end of March 1988, there were 473,789 motor vehicles; of which 185,349 (39 per cent) were scooters/motor cycles; 156,257 (33 per cent) were private cars, station wagons, taxi cars and jeeps, 57,388 (12 per cent) were buses and 56,674 (12 per cent) were other vehicles. (See Appendix 7.6). Ernakulam District has the largest number of vehicles (74,780) followed by Trivandrum (73,918), while Wayanad district has the lowest number of vehicles (5,918).

7.16 The number of newly registered vehicles during the year under review showed an increase of 5.76 per cent over those during the previous year. The newly registered vehicles during 1987-88 consist of 25,627 (49.3 per cent) scooters/motor cycles; 11,562 (22 per cent) cars and station wagons including taxi cars and jeeps, 5,663 (11 per cent) goods vehicles; 1,751 (3.4 per cent) buses and 7,400 (14.2 per cent) other vehicles. In respect of registration of new vehicles, Kozhikode district stands first (8,798) followed by Trivandrum district (8,082) and Wayanad district is at the bottom of the list with 439 nos. District-wise details of newly registered vehicles are given in Appendix 7.8. The Regional Transport Authorities issued 1405 temporary and 287 pucca stage carriage permits during the year under review. Under the National Permits Scheme, 2127 permits were issued during 1987-88. The details relating to the permits granted are given in the following Table 7.4.

TABLE 7.4

Details relating to issue of permits and National Permits granted under National Permits Scheme

	1987-88
1. Permits granted under—	
(i) existing inter-state operators (Nos.)	} 2,127
(ii) existing intra-state operators (Nos.)	
(iii) ex-army personnel (Nos.)	
(iv) unemployed drivers	
(v) Scheduled Castes/Scheduled Tribes	
Total	2,127
2. State quota of National permits	Nil
3. Number of goods vehicles having inter-state permits (not included under National Permits Scheme):	
(i) Vehicles registered in Kerala having permit to operate in other States	3,500
(ii) Vehicles registered in other States having permit to operate in Kerala	3,500
Total	7,000
4. Number of stage carriage permits issued by RTA	
(a) Temporary	1405
(b) Pucca	287
Total	1,692

7.17 The total revenue collected under the Kerala Motor Vehicles Taxation Act and Rules during the year 1987-88 amounted to Rs. 55.19 crores as against Rs. 53.36 crores during the preceding year. This shows an increase of 3.43 per cent during the year under review over the previous year's collection. The cumulative arrears of tax under the Motor Vehicles Act as on 31-3-1988 stood at Rs. 5.83 crores. The main defaulter is KSRTC, which alone has to remit Rs. 2.75 crores as tax arrears.

Passenger Transport

7.18 The passenger transport operations in the State are undertaken both by the public sector and private sector. The stage carriages under public sector account for only 23 per cent in the State during 1987-88. The district-wise distribution of stage carriages is shown in table 7.5.

TABLE 7.5

District-wise distribution of Stage Carriages in the State

Sl. No.	District	K.S.R.T.C. *		Other Stage carriages	Total Stage Carriages
		No. of Transport units	No. of buses held in each unit		
(1)	(2)	(3)	(4)	(5)	
1.	Trivandrum	13	1074	204	1278
2.	Quilon	4	272	712	984
3.	Pathanamthitta	3	146	389	535
4.	Idukki	1	38	259	297
5.	Alleppey	6	315	540	855
6.	Kottayam	6	294	842	1136
7.	Ernakulam	6	293	1473	1766
8.	Trichur	5	206	1569	1775
9.	Palghat	1	82	733	855
10.	Malappuram	3	80	835	915
11.	Calicut	2	121	1109	1230
12.	Wayanad	1	163	98	261
13.	Cannanore	2	112	1156	1268
14.	Kasaragod	1	23	329	352
	Total	54	3219	10288	13507

* Includes vehicles held in various workshops of KSRTC also. The number of stage carriages under KSRTC as per Transport Commissioner's Office records is 3453.

Source: 1. Kerala State Road Transport Corporation.
2. Office of the Transport Commissioner.

7.19 As per the statistics given from the Transport Commissioner's Office, the number of stage carriages registered in the State increased from 13,102 during 1986-87 to 13,741 during 1987-88. The private sector in the northern districts plays a major role in the passenger transport operations.

Passenger transport under public sector

7.20 The Kerala State Road Transport Corporation, the only public sector passenger transport agency, has fleet strength of 3219 during the year under review as against 3019 during the preceding year. The Corporation disposed of 217 buses during 1986-87 as against 129 during 1987-88. At the same

time, the Corporation added 166 and 329 buses respectively during these years. The number of schedules operated by KSRTC declined from 3162 during 1986-87 to 2840 during 1987-88 (10.2 per cent). The Corporation operated its buses in 3839 routes during 1987-88 with a total distance of 171,994 km., as against 3827 routes with a total distance of 171,942 km. in the preceding year. The fleet strength of the Corporation increased from 3019 in 1986-87 to 3219 in 1987-88. The total number of passengers carried during the year under review was 8181 lakhs, showing an increase of 8.2 per cent over the previous year.

7.21 The unit distribution of KSRTC shows that Trivandrum district has the maximum number of units viz. 13 with 1074 buses, which account for 33 per cent of the total number of buses held by the Corporation. Alleppey district ranks second with 315 buses and Kasaragode district has the least number of buses viz. 23.

7.22 The gross revenue earnings of the Corporation increased from Rs. 111.33 crores during 1986-87 to Rs. 127.28 crores in 1987-88. The students who formed 6 per cent of the total passengers continued to avail concession tickets in the year under review. The present fare structure of KSRTC, after the fare revision from May, 1988 is shown in Table 7.6.

TABLE 7.6

Revised Fare Structure of KSRTC w.e.f. May 1988

Sl. No.	Type of service	Basic fare per km. (Paise)	Minimum fare (Paise)
(1)	(2)	(3)	(4)
1.	City	10.5	50
2.	Ordinary	10.5	60
3.	Fast Passenger	13.0	150
4.	Express	15.0	400
5.	Deluxe Express	18.0	500

7.23 The average earnings per passenger increased from 145 paise in 1986-87 to 152 paise in 1987-88, registering an increase of 4.8 per cent. The average earnings per km. of buses operated had come down from 467 paise during 1986-87 to 466 paise during 1987-88. The earnings per vehicle on road per day had registered a decline from Rs. 1386 in 1986-87 to Rs. 1332 in 1987-88 (3.9 per cent).

7.24 The gross revenue expenditure of the Corporation stood at Rs. 141.28 crores during 1987-88 as against Rs. 125.12 crores during 1986-87. This shows an increase of 12.9 per cent in the year under review. Out of the total expenditure, staff cost accounted for Rs. 63.98 crores (45.29 per cent); expenditure on fuel amounted to Rs. 30.57 crores (21.64 per cent); expenditure on repair and maintenance stood at Rs. 19.30 crores (13.66 per cent) and others added upto Rs. 27.43 crores (19.41 per cent) during the year under review. This reveals an increase of 1.06 per cent for staff; 0.80 per cent

for fuel, 0.38 per cent for repair and maintenance, and a decrease of 2.25 per cent for others over those in the preceding year. The percentage increase in the gross revenue earnings of the Corporation was 14.33 whereas that of gross expenditure stood at 12.9 over the previous year.

7.25 The loss of the Corporation in 1987-88 stood at Rs. 14 crores as against Rs. 13.79 crores in 1986-87. The accumulated loss of the Corporation registered an increase from Rs. 97.90 crores during 1986-87 to Rs. 112 crores during 1987-88.

7.26 As regards capital invested till the end of 1987-88 by the Government of Kerala and the Central Government amounted to Rs. 39.82 crores and Rs. 16.62 crores respectively. Loans worth Rs. 34.68 crores were outstanding as at the end of 1987-88.

7.27 As regards vehicle productivity, the age composition of fleet is an important factor. During 1987-88, the percentage of overaged fleet in KSRTC was 39, as against 46 during the preceding year. Utilisation of overaged fleet together with large number of break-downs, frequent cancellation of scheduled trips affect the vehicle productivity. The fleet utilisation in KSRTC is low when compared to All-India level. It is estimated that the fleet utilisation is nearly 80 per cent in KSRTC as against the All-India average of 85.50 per cent in 1986-87. The low percentage of fleet utilisation in the KSRTC is mainly due to the large proportion of overaged buses. At the end of the financial year 1987-88, there were 750 buses of more than ten years old.

7.28 Another important factor to be considered in this context is staff productivity and cost per employee per day. According to the study conducted by the Planning Commission on the Performance of State Road Transport Undertakings, the staff productivity of KSRTC is 21.4 km. in 1986-87 as against the All-India average 32.5. The staff cost per employee per day is also high in KSRTC, viz. Rs. 52.47 in 1986-87 as against the All-India average of Rs. 49.46.

7.29. In the case of staff bus ratio, a declining trend was noticed during the year under review. The number of staff per bus has come down from 10.2 in 1986-87 to 9.44 in 1987-88. The corresponding ratio according to data available for 1985-86 was 7.57 for Andhra Pradesh, 6.35 to 8.75 for Tamil Nadu and 6.22 for Karnataka. The total staff strength of the Corporation has also declined from 30,849 in 1986-87 to 30,389 in the year under review. The table given below reveals the category-wise staff position of KSRTC.

TABLE 7.7
Category-wise staff position of K.S.R.T.C.

Sl. No.	Category	At the end of March 1987	At the end of March 1988
	(1)	(2)	(3)
1.	Administrative staff including watch & ward	4387	4785
2.	Traffic Personnel	19414	18708
3.	Maintenance Personnel	7048	6896
	Total	30849*	30389*

*Excludes the staff under Water Transport Wing of KSRTC.

Goods Transport

7.30 The private agencies dominate the goods transport operations by road. The number of goods vehicles in the State showed an increase of about 6.5 times since 1966. The number of goods vehicles as on 31-3-1988 stood at 57,388 as against 51,284 as on 31-3-1987. It shows an increase of 12 per cent during the year under review over that in the preceding year. The table below depicts the growth in the number of goods vehicles since 1966:

TABLE 7.8

Growth of goods vehicles in Kerala since 1966

Year	No. of goods Vehicles	Index
(1)	(2)	(3)
1966	8848	100
1975	15875	179
1980	20128	227
1981	22896	259
1982	25696	290
1983	29153	329
1984	30966	350
1985	36699	415
1986	45325	512
1987	51284	579
1988	57388	648

Railways

7.31 The entire network of railways in the State comes under three major divisions viz., Trivandrum, Palghat and Madurai. The total route length under the two railway divisions in the State is 941 km, comprising of 828 km of broadgauge and 113 km of metregauge. Six new Express trains from Cochin Harbour Terminus to Hyderabad, Ahamadabad, Bombay Victoria Terminus, Gauhati, Howrah and Bilaspur were introduced from Trivandrum Division during the period under review. Apart from this, two passenger trains—one from Trivandrum Central to Nagarcoil Junction and the other from Shoranur to Calicut—were also introduced on 1-10-1987. One Bi-weekly Express train from Bombay Victoria Terminus to Mangalore was introduced by the Palghat Division on 1-10-1987.

7.32 The construction work on 57km of Broadgauge line from Ernakulam to Alleppey costing Rs. 60 crores was started in 1979 and is expected to be completed in September 1989. Nearly 60 per cent of the work in respect of the above railway line was completed by the end of December 1988. Construction of Alleppey—Kayamkulam railway line (43 km.) estimated to cost Rs. 35 crores has also been started. As on 31-12-1988, nearly 20 per cent of the work was completed. It is expected that the entire work on this line will be completed before the end of 1991. As regards Trichur-Guruvayur line, 10 per cent of the work was over by the end of December 1988. The total amount required for the work is estimated at Rs. 17 crores.

7.33 There are at present 71 railway stations in Trivandrum Division, of which 46 are Block stations and 25 are halt/flag stations. The Palghat division has 74 railway stations comprising of 45 Block stations and 29 halt/flag stations during 1987-88. About 320 lakh passengers originated from the Stations of Trivandrum division during 1987-88 as against 338 lakhs during 1986-87. Under Palghat division 116.93 lakh passengers were originated from different stations of the division within Kerala in 1987-88. The number of passengers terminating in Trivandrum division was 308 lakhs in 1987-88 and 65.52 lakhs under Palghat Division. The number of wagons loaded at different stations in Kerala under Trivandrum and Palghat divisions were about 1.52 lakhs and 0.81 lakh respectively during 1987-88. The number of wagons received in the above two divisions were 1.14 lakhs and 1.45 lakhs respectively during 1987-88. The quantities of goods terminated in Trivandrum and Palghat divisions were estimated at 28.04 lakh tonnes and 48.29 lakh tonnes respectively in 1987-88. The freight operation is mainly carried out by the three minor yards viz. Irimpanam, Cochin and Ernakulam Marshalling. The Irimpanam yard undertakes the requirements of M/s. Cochin Refineries Limited and M/s. FACT, Cochin Division. Cochin yard looks after the traffic originating in the Port area and the FACT godown of the division. Ernakulam Marshalling Yard deals with the divisions like Thirunelveli, Nagarcoil and the industrial belt in and around Ernakulam.

7.34 The revenue receipts, both from passenger and goods traffic of the Trivandrum division showed an increase during the year under review. The receipts from passenger transport increased from Rs. 5365 lakhs to Rs. 6230 lakhs and that from goods transport went up from Rs. 4050 lakhs to Rs. 4230 lakhs. Details are given in Table 7.9.

TABLE 7.9

Revenue receipts—Trivandrum Division

Item	Earnings (Rs. lakhs)		Increase (Rs. lakhs)	Percentage increase
	1986-87	1987-88		
(1)	(2)	(3)	(4)	(5)
Passenger	5365	6230	865	16.1
Goods	4050	4230	180	4.4
Total	9415	10460	1045	11.1

7.35 The total revenue earnings from passenger and goods traffic under Palghat Division were Rs. 1821 lakhs and Rs. 557 lakhs respectively during the year 1987-88.

Air Transport

7.36 The major agencies which undertake air transport operations in the State are Indian Airlines and Air India. Apart from the two international services to Colombo and Mali, the Indian Airlines operates services from Trivandrum and Cochin to the major cities in the country. Air India operates services from Trivandrum Airport to the Gulf countries.

37/1052/MC.

7.37 The number of passengers originating from Trivandrum and Cochin Airports through Indian Airlines showed a decline of 0.25 per cent during 1987-88. The number of passengers declined from 329,857 in 1986-87 to 329,024 during the year under review. The number of passengers terminating in these two airports also showed a decline of 2.4 per cent from that in the previous year.

7.38 The freight traffic originated from these two airports also registered a decline of 4.4 per cent. The actual quantity of freight traffic during 1986-87 was 1918.57 tonnes, and that during 1987-88 stood at 1833.50 tonnes. The freight traffic terminating also came down to 3168.68 tonnes during the year under review, as against 3343.98 tonnes in the preceding year, showing a decline of 5.5 per cent (Appendix 7.11).

7.39 The number of passports issued in the State registered an increase from 1.30 lakhs during 1986-87 to 1.49 lakhs during 1987-88, 15 per cent increase during the year under review. The details of passports issued, emigration clearance granted etc. are given in Appendix 7.12.

Inland Water Transport

7.40 The Water Transport operations in the State are carried out by three different agencies viz; the State Water Transport Department (SWTD); Kerala Inland Navigation Corporation (KINCO), and Kerala Road Transport Corporation (Water Transport Wing). The passenger transport services are operated mainly by KSRTC and the State Water Transport Department. The cargo transportation is handled mainly by KINCO. The activities of State Water Transport Department are concentrated in the water-logged areas of Quilon and Alleppey whereas KINCO and KSRTC undertake transport operations in the areas around Cochin. The number of passengers carried by the three agencies during the year under review stood at 247 lakhs. The total number of persons employed by these agencies totalled 1568.

Inland water transport is the cheapest and energy efficient transport system for certain types of goods. The matter regarding declaration of the West Coast Canal as National Water Way, between Cochin and Quilon, two nerve centres of the State has been engaging the attention of the Central and State Governments for quite some time now. The state government has impressed upon the Central Government the urgency of the matter considering its economic importance to the State. A decision on this is awaited from Government of India.

State Water Transport Department

7.41. The Department owns 75 boats with a seating capacity of 911 during the current year. Out of the 75 boats, 54 were in operation and 21 were very old, by more than 20 years.

7.42 The Department operated services in 87 routes covering a gross route distance of 7,345 km. during the year under review. The number of passengers and the volume of cargo handled by the department had decreased during the year. The number of passengers decreased by nearly 20 per cent during the year 1987-88, compared to the previous year. The volume of cargo handled by the Department also declined from 6470 tonnes in 1986-87 to 3500 tonnes during 1987-88, registering a fall of 46 per cent. The number

of students who availed of concession tickets was 4305 during 1987-88 as against 3974 in the preceding year, the percentage increase being 7.7 per cent.

7.43 The total revenue receipts of the Department stood at Rs. 129.43 lakhs in 1987-88 as against Rs. 149.73 lakhs in 1986-87, a decline of 13.56 per cent. About 97.84 per cent of revenue receipts is from passenger traffic where as the earnings from cargo and other receipts constitute only 2.16 per cent. The earnings from passenger transport as well as from cargo movement were less during the year under review.

7.44 The total expenditure of the Department stood at Rs. 236.05 lakhs. Nearly 58 per cent of this was spent on salary and wages and the balance, on the cost of fuel and lubricants. The net loss of the Department stood at Rs. 106.63 lakhs in 1987-88 as against Rs. 83.87 lakhs during 1986-87. The number of persons employed in the Department increased from 1100 during 1986-87 to 1115 during 1987-88.

The Kerala Inland Navigation Corporation

7.45 The Corporation undertakes passenger and cargo transportation activities in and around Cochin area. The Corporation owns 9 passenger boats with a seating capacity of 777 persons in 1987-88 as against 8 boats during 1986-87 with a seating capacity of 627 persons. Out of the 9 boats, 2 are under repair.

7.46 The Corporation owns 9 barges with a total capacity of 1975 M.TS. Out of the 9 barges, 8 were under operation during the year under review.

7.47 Total revenue receipts of the Corporation stood at Rs. 67.36 lakhs during the year under review. Out of this, 32.82 per cent was from passenger transport and 67.18 per cent from cargo. The revenue earnings from cargo transportation had increased from Rs. 37.28 lakhs in 1986-87 to Rs. 45.25 lakhs during 1987-88, where as the earnings from passenger transport increased from Rs. 20.68 lakhs to Rs. 22.11 lakhs during the same period.

7.48 The total revenue expenditure of the Corporation stood at Rs. 87.85 lakhs during 1987-88 as against

Rs. 82.91 lakhs during the preceding year. Salary component was 33.6 per cent of the total expenditure while expenditures on fuel and lubricants were nearly 15.2 per cent.

7.49 The revenue receipts showed an increase of 16.24 per cent, while the expenditure registered a rise of only 5.96 per cent over the previous year's level. The Corporation incurred a loss of Rs. 17.47 lakhs during 1987-88 as against Rs. 24.57 lakhs during 1986-87.

Kerala State Road Transport Corporation Water Transport Wing

7.50 The Water Transport Wing of the K.S.R.T.C. is engaged in the water transport activities around the Cochin area. The number of boats and the seating capacity on these boats were 12 and 1622 respectively during the reference year also. The Corporation conducted ferry services in 8 routes with scheduled trips of 243 per day. This shows a reduction of nearly 27 percent in the number of trips operated during the year 1987-88, compared to the preceding year. The number of passengers carried by the above services showed an increase of 3.83 lakhs during the year 1987-88 registering an increase of 4.5 per cent.

7.51 The gross revenue receipts of the Corporation stood at Rs. 42.15 lakhs in 1987-88 as against Rs. 41.23 lakhs during 1986-87, which showed only a marginal increase. The expenditure during 1987-88 had increased to Rs. 86.31 lakhs from Rs. 73.55 lakhs in the preceding year, an increase of 17.35 per cent. The salaries and wages comprise of about 72 per cent of the total expenditure. The total loss of the Corporation stood at Rs. 44.15 lakhs during 1987-88 as against Rs. 32.32 lakhs during 1986-87.

7.52 The total number of employees in the Corporation at the end of 1987-88 was 281 as against 307 in the preceding year.

7.53 The operational statistics of these three agencies are given in Table 7.10.

TABLE 7.10

Operational Statistics of State Water Transport Department, Kerala Inland Navigation Corporation and Kerala State Road Transport Corporation (Water Transport Wing)

Sl. No.	Particulars	1986-87			1987-88		
		SWTD	KINCO	KSRTC	SWTD	KINCO	KSRTC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Total number of boats owned	75	17*	12	75	{ 9(p) 9(B)	12
2	Boats aged over 20 years	21	N A	Nil.	21	Nil.	Nil.
3	Boats in Operation	54	14	12	54	{ 7(P) 8 (B)	12
4	No. of trips/schedules operated per day	479	N A	333	NA	72	243
5	Gross route distance (Km.)	7683.6	704	Cochin area	7345	584	Cochin area
6	No. of passengers carried (lakhs)	154.40	35.45	85.19	122.84	34.86	89.02
7	Volume of cargo carried (tonnes)	6470	1.42	Nil	3500	1.75	Nil.
8	Total Revenue receipts (Rs. lakhs)	149.73	57.75	41.23	129.43	67.36	42.15
9	Total revenue expenditure (Rs. lakhs)	236.05	82.91	73.55	236.05	87.85	86.31
10	Net loss (Rs. lakhs)	88.87	24.57	32.32	106.63	17.47	44.15
11	No. of persons employed	1100	186	307	1115	172	281

* KINCO owns 8 passenger boats and 9 barges during 1986-87.

P - Passenger boats. B. - Barges.

Ports and Harbours

7.54 Kerala has one major port at Cochin, 3 Intermediate and 10 Minor ports.

7.55 The activities at the Cochin Port registered slight decline during 1987-88 when compared to the preceding year. The number of ships called at the port during the year under review declined to 716 from 791 during 1986-87. Correspondingly, Net Registered Tonnage (NRT) has also declined from 57.75 lakh tonnes in 1986-87 to 56.23 lakh tonnes in 1987-88. The number of container vessels decreased to 172 from 217 in the preceding year. Also the number of sailing vessels decreased to 16 in 1987-88 from 22 in 1986-87. During the year under review, 2 vessels carrying food grains arrived at Cochin port, while there was none in the preceding year. Category-wise analysis of ships called at Cochin Port with corresponding NRT is given in the Appendix 7.13.

7.56 The Cochin Port handled 68.02 lakh tonnes of Cargo consisting of 12.17 lakh tonnes as exports and 55.85 lakh tonnes as imports during 1987-88. The quantity of cargo handled by the port showed a decline of 1.18 per cent from that in the previous year, during which 68.83 lakh tonnes of cargo consisting of 12.83 lakh tonnes as exports and 56.00 lakh tonnes as imports, were handled.

7.57 The total volume of container traffic handled through the Cochin Port during the year under review, however, increased to 225,508 tonnes from 211,574 tonnes in the preceding year, the percentage of increase being 6.6. During the year under review, the coastal traffic decreased by 23.29 per cent, to 32.48 lakh tonnes from 42.34 lakh tonnes in the preceding year. On the other hand, the foreign traffic registered an increase

by 34.16 per cent, to 35.54 lakh tonnes from 26.49 lakh tonnes in 1986-87. Details regarding the exports and imports through the Cochin Port during the period under review are given in Table No. 7.11. The total number of passengers sailed from and arrived at Cochin Port during the period under review stood at 16,598 and 21,859 respectively, while the corresponding figures relating to the previous year were 17,828 and 19,287 respectively.

7.58 The three Intermediate Ports in the State are Beypore, Alleppey and Neendakara, and ten minor ports are Trivandrum, Vizhinjam, Quilon, Kodungalloor, Ponnani, Badagara, Tellicherry, Cannanore, Azhikkal and Kasaragode. Among the above intermediate and minor ports, landing and shipping operations were confined to the Ports of Calicut, Neendakara and Azhikkal during 1987-88. The traffic handled at the above three ports were 37,947 M.T.; 40,100 M.T. and 4,750 M.T. respectively during the year. Thus the total quantity of cargo handled during the year under review stood at 82,797 M.T. as against 90,090 M.T. during the preceding year. A passenger steamer service between Beypore and Laccadives was started during 1987-88. The above steamer carried 1,293 passengers from and 910 passengers to the islands.

7.59 The total number of steamers and sailing vessels called at the Intermediate and Minor Ports increased from 347 in 1986-87 to 385 during 1987-88. But on other contrary, the tonnage registered a decline from 81,643 tonnes to 66,332 tonnes. The total number of harbour crafts registered at the Minor and Intermediate ports during the year under review stood at 975 as against 1066 in the preceding year, showing a decline of 8.5 per cent. The details of the number of vessels called at the port, tonnage handled, and the number of crafts registered are given in the appendix. 7.14.

TABLE 7.11

Coastal and foreign traffic handled through Cochin Port during 1986-87 and 1987-88

(in lakh tonnes)

Traffic	Export		Import		Total	
	1986-87	1987-88	1986-87	1987-88	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coastal	5.64	4.91	36.70	27.57	42.34	32.48
Foreign	7.19	7.26	19.30	28.28	26.49	35.54
Total	12.83	12.17	56.00	55.85	68.83	68.02

Source: Administration Report of Cochin Port Trust (1987-88)

7.60 Cargo handled through the minor and intermediate ports during the year under review stood at 82,797 tonnes as against 90,090 tonnes during the preceding year, registering a decline of nearly 8 per cent. During 1987-88 both export and import activities were carried out only through Calicut and Azhikkal Ports; while Neendakara Port performed export activities alone. Among the above three

ports, Neendakara ranked first in handling cargo with 40,100 tonnes, followed by Calicut and Azhikkal, with 37,947 tonnes, and 4,750 tonnes respectively.

7.61 Revenue earned from all the intermediate and minor ports of Kerala during the year 1987-88, amounted to Rs. 24.12 lakhs as against Rs. 42.46 lakhs in the preceding year, registering a fall of nearly 43 per cent.

7.62 The State Hydrographic Survey Wing has its headquarters at Trivandrum and two field unit offices at Quilon and Beypore. The Hydrographic Survey Wing is responsible for conducting field surveys and collecting investigation data for the development of various Minor Ports, Fishing Harbours and improving the existing facilities of the selected places. The data so collected are made available to the Harbour Engineering Department for use in the design of Cargo and Fishing Harbours. The department also undertakes special surveys for channel construction.

7.63 During 1987-88, the dredgers of the Port Department conducted dredging operations in Cochin Udyogamandal Canal for State Public Works Department; at Cochin for a link road; at Beypore Port, at Azhikkal bar for SILK, at Kumbalam for Southern Railway and the cargo harbour and fishing harbour at Neendakara. The total hours dredged during the year by CSD Meena-Kerala was 885, and by CSD Neendaka 602 hours. The details regarding the dredging operations are shown in the appendix 7.16.

7.64 The Harbour Engineering Wing carries out all the development works of Ports and Fisheries department, consisting of investigation, design, construction of Cargo Harbour, Fishing Harbour, Fish Landing Centres, National Seed Farm for Fresh Water Fish, Brakish Water Fish Farm, & Prawn Hatcheries, construction of houses for port staff, maintenance of Port structures etc. During the year under review, the department continued investigation works for the development of Ports and Harbours, Fish Farms, Hatcheries etc. Investigation for preparing a master plan for the integrated development of minor ports is also under way. Investigations for establishing fishing harbours at Kayamkulam, Muthalapozhi, Thottappally, Moplabay, Ponnani and Beypore are in progress. The fishing harbour at Neendakara has been commissioned in March, 1988.

7.65 A new scheme of wave energy project to generate energy from waves is being implemented under the supervision of the Harbour Engineering Department at Vizhinjam Port with 100 per cent Central assistance and with technical know-how support from I. I. T. Madras. It is expected that by April, 1989 the project would be on stream.

7.66 Annual maintenance work of all port structures and piers at Alleppey and Calicut continued during the year under review. The Alleppey Port has been revived and ships are calling at the Port.

Communications

7.67 Kerala Postal Circle has 23 postal and 3 RMS divisions with 90 subordinate offices, 5 Mail Motor Service divisions and one Central Stamp Depot. The total number of post offices in the State registered a marginal increase of 34 numbers during the year 1987-88. At the end of 1987-88, there were 4782 Post Offices in the State as against 4748 in 1986-87. The network of Post Offices in the State in the year under review consisted of 50 Head Offices, 1971 Sub-offices together with Extra Departmental Offices and 2761 Branch Offices. Apart from this, there are 2 Speed Post Centres in the State. Introduction of

Speed Post System in the State is a recent development. The names of Indian and International Speed Post Centres are given in Appendix 7.17. Speed Post Service is available even on holidays except Republic Day, Independence Day, Gandhi Jayanthi, Thiru Onam and X'mas Day, and it accepts all types of articles except V. P. P. and insured. It has same day service from Cochin and Trivandrum to all District Headquarters and next day service to 42 important cities in India. International service is also available to 34 Countries.

7.68 The average area and population served by each post office stood at 8.13 sq. km. and 5323 persons respectively during 1987-88, as against the All-India level of 22.83 sq. km. and 4758 persons during the year 1986-87. Statistics relating to the growth of Post Offices in Kerala since 1975 are given in Appendix 7.18. The average area and population served by each Post office and other information regarding Post Offices (division-wise) are furnished in Appendices 7.19 and 7.20.

7.69 On an average, Kerala has 7 telephones per thousand population as against 5 at All-India level as on 1-4-1988. The percentage increase of working connections stood at 9.77. The actual number of connections during 1986-87 stood at 168,321, which went up to 184,770 during 1987-88. Demand for new telephone connections in Kerala is perhaps the highest compared to many other States in the Country. As on 1-4-1988 there were 97,740 applicants in the waiting list, as against 84,756 on 1-4-1987 registering an increase of 15.32 per cent during the year under review. The number of telephone exchanges in the State at the end of the year 1987-88 was 621 with a total equipped capacity of 195,852, as against 608 with an equipped capacity of 178,821 during the preceding year. The public call offices as on 1-4-1988 stood at 2,938 as against 2,944 during 1986-87 registering a decrease of 0.20 per cent during the year under review. Information relating to telephone exchanges in Kerala is furnished in Appendix 7.21. Total revenue earnings of the department increased by 26.43 per cent while the expenditure increased by only 2.05 per cent during 1987-88 over the previous year's level. The net profit earned by the department increased from Rs. 1,932.92 lakhs in 1986-87 to Rs. 3,498.78 lakhs during 1987-88. The capital investment of the department amounted to Rs. 5,879.64 lakhs. The number of persons employed stood at 16,552 during 1987-88 as against 16,559 in 1986-87.

7.70 A notable feature of Kerala Telecom network is that all districts in the State except Kasaragod are connected with STD and NSD (No Delay Service) facilities. Out of the 621 exchanges in the circle, 464 are brought under interdialling system during the year under review. During the year, the International Telephone Service was extended to 155 foreign countries, and there existed 66 Mutual Trunk Exchanges in the State.

Tourism

7.71 Kerala State offers immense potential for tourism development, with its beautiful beach resorts, hill resorts, backwaters, wild life sanctuaries, archaeological monuments, fairs, festivals etc. To attract

foreign as well as domestic tourists to the State, adequate infrastructural facilities by way of accommodation, transport, recreational and other facilities have to be provided. The agencies at present involved in the development of tourism in the State are the Department of Tourism and the Kerala Tourism Development Corporation.

7.72 The Department of Tourism is managing the Guest Houses and Tourist Bungalows and also functioning as the hospitality wing of the State Government. The Kerala Tourism Development Corporation has three different operations, viz. hoteliering, tourist transport and tourist information and publicity. The Corporation has 13 hotel units in the State. During 1987-88, income from these hotel units amounted to Rs. 216.35 lakhs, while expenditure stood at Rs. 216.62 lakhs. Apart from these 13 hotel units, the Corporation has a restaurant "Sabala" inside the Trivandrum Museum, attached to Moscot Hotel, Trivandrum. In respect of Tourist Transport facilities, the Corporation has a fullfledged Transport Division with headquarters at Trivandrum and units at Thekkady, Ernakulam

and Cochin. The Corporation is operating conducted tours through luxury coaches and boats and package tours to various places in the country. A Public Relation Division, a Central Reservation Division and a Tourist information office are functioning under the Corporation. The Central Reservation Division reserves accommodation and transport facilities for the units of the Corporation as well as other hotels and guest houses inside and outside the State. Production of tourist brochures, tourist maps and other tourist literature, documentary as well as video films depicting tourist attractions in the State, advertisement in newspapers and magazines etc. are the major modes of publicity and marketing.

7.73 About 700 beds are available in the various hotel units managed by the Corporation. During the year 1987-88, nearly 61,000 domestic tourists and 13,000 foreign tourists visited the State. Details of beds available, number of visitors, occupancy ratio, income and expenditure in respect of each of the hotel units under K.T.D.C. relating to the above period are given in Appendix 7.22.

EXPORT IMPORT TRADE

India's Foreign Trade

India's foreign trade showed further improvement during 1987-88, for the second year in succession despite widespread drought conditions in the country which adversely affected exports of some of the items and at the same time necessitated larger imports of several commodities. The depreciation in the value of Indian currency has also contributed to the spurt in exports.

8.2 India's export for 1987-88 stood at Rs. 15,741 crores while imports amounted to Rs. 22,399 crores. However, as the rate of growth in exports was considerably higher than the growth in imports, the merchandise trade deficit which had already declined to Rs. 7,749 crores in 1986-87 narrowed down further to Rs. 6,659 crores in 1987-88. However, provisional data available for April to December 1988 indicate that though exports have grown by 24.4%, imports have grown at an even higher rate of 27.4% compared to the corresponding period last year. The provisionally estimated trade deficit for this period had increased to Rs. 6,607 crores or Rs. 1,688 crores more than the deficit recorded during the corresponding period of last year. Table 8.1 shows the trend of India's foreign trade during 1980-81 to 1987-88.

TABLE 8.1

India's Foreign Trade

(Rs. crores)

Year	Exports	Imports	Balance of Trade
(1)	(2)	(3)	(4)
1980-81	6711	12549	-5838
1981-82	7806	13608	-5802
1982-83	8803	14293	-5490
1983-84	9771	15831	-6060
1984-85	11744	17134	-5390
1985-86	10895	19658	-8763
1986-87*	12452	20201	-7749
1987-88@	15741	22399	-6659

Source: R B I Bulletin August 1988 and Economic Survey 1988-89.

*Partially revised.

@Provisional.

8.3 The principal items of exports which showed substantial increase over the previous year are gems and jewellery, readymade garments, chemicals and related products, petroleum products, engineering goods, leather and leather manufactures, spices, marine products, meat and meat preparations and handmade carpets.

8.4 India's imports during 1987-88 totalled Rs. 22,399 crores indicating an increase of 10.9 per cent over the previous year. A major portion of this rise in imports was accounted for by capital goods, petroleum and petroleum products, edible oils, pearls and precious stones and iron and steel. By and large, the commodity composition of India's imports comprises mainly of capital goods, industrial raw materials, iron and steel, petroleum products etc.

8.5 India's trade deficit which was within the range of Rs. 5490 crores and Rs. 6060 crores per annum during 1980-81 to 1984-85, rose to a record level of Rs. 8763 crores in 1985-86. There has been a steady decline in the deficit during 1986-87 and 1987-88 when, on an average, export grew by about 20 per cent while imports rose only by 6.8 per cent. The deficit is anticipated to go up sharply as indicated by the relatively high growth rate of imports during the first nine months of the year 1988-89.

Trade through Cochin Port

8.6 Kerala has a significant share in the total export earnings of the country. Even though it is difficult to have a precise estimate exclusively for Kerala's exports, the trade through Cochin Port is taken as an indicator of our trade performance as it caters to a major share of the state's foreign trade.

8.7 During 1987-88, the total traffic handled at the Port has declined marginally by 1.2 per cent to 68.02 lakh tonnes from the all time high of 68.83 lakh tonnes during the previous year. The Table 8.2 shows the break-up of the traffic handled at Cochin Port.

TABLE 8.2
Traffic Handled by Cochin Port

Traffic	(Lakh tonnes)					
	Export		Import		Total	
	1986-87	1987-88	1986-87	1987-88	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coastal	5.64	4.91	36.70	27.57	42.34	32.48
Foreign	7.19	7.26	19.30	28.28	26.49	35.54
	12.83	12.17	56.00	55.85	68.83	68.02

Source: Cochin Port Trust.

8.8 The volume of foreign traffic handled during 1987-88 increased by 34.16 per cent as against 23.3 per cent decline in coastal traffic, over the previous year. The principal reason for the substantial increase in foreign trade was the higher proportion of foreign crude handled at the port during the year. Of the total

traffic, the share of foreign trade and coastal trade was 52.2 per cent and 47.8 per cent respectively.

8.9 The total exports have declined by 5.42 per cent from 12.83 lakh tonnes in 1986-87 to 12.17 lakh tonnes in 1987-88.

TABLE 8.3
Commodity-wise details of Exports through Cochin Port Trust

Commodities	(Metric Tonnes)					
	1987-88		1986-87		Percentage variation over 1986-87	
	Quantity	% to total	Quantity	% to total		
(1)	(2)	(3)	(4)	(5)	(6)	
Tea	15371	1.3	22307	1.7	(-)-31.1	
Cashew Kernels	37323	3.1	42685	3.3	(-)-12.6	
Sea foods	42516	3.5	40235	3.1	5.7	
Coir products	25393	2.1	24677	1.9	2.9	
Spices	45770	3.8	41391	3.3	10.6	
Coffee	47058	3.9	31056	2.4	51.5	
Miscellaneous	1003206	82.3	1080852	84.3	(-)-7.2	
Total	1216637	100.0	1283203	100.0	(-)-5.2	

Source: Cochin Port Trust.

8.10 An analysis of the composition of exports shows the dominance of traditional items like pepper, cashew kernels, tea, coffee, cardamom, turmeric, ginger, coir and coir products and marine products. During the year under review the items like spices, seafoods, coffee and coir products, registered an increase in terms of volume exported. For further details see Appendix 8.1 and Appendix 8.2.

Marine Products

8.11 The export of marine products from India touched an all-time high of Rs. 531.20 crores, in 1987-88,

surpassing the previous record of Rs. 460.67 crores in 1986-87. The quantity exported has also increased to a record level of 97,179 metric tonnes in 1987-88 from 85,843 metric tonnes in 1986-87. There has been an increase of 13.2 per cent in quantity exported, and 15.3 per cent in value realised during 1987-88 over the previous year. However the unit value realisation has increased only marginally from Rs. 53.66 per kg. in 1986-87 to Rs. 54.66 per kg. during 1987-88, as is shown in Table 8.4.

TABLE 8.4
Export Growth of Indian Marine Products

Year	Quantity (M.T.)	Value (Rs. Crores)	Average unit value Rs./Kg.	Growth Rate (%)	
				Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)
1983-84	92691	373.02	40.24	18.57	3.23
1984-85	86187	384.29	44.59	(-)-7.02	3.02
1985-86	83651	398.00	47.58	(-)-2.94	3.57
1986-87	85843	460.67	53.66	2.62	15.75
1987-88	97179	531.20	54.66	19.21	15.31

Source: The Marine Products Export Development Authority, Cochin.

The details of the export of marine products from Kerala and India during 1980-81 to 1987-88 are given in Table 8.5.

TABLE 8.5
Export of Marine Products: Kerala and India

Year	Kerala		India	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
1980-81	29148	9534	75591	23484
1981-82	32006	12513	70105	28601
1982-83	32525	14147	78175	36136
1983-84	32840	14086	92691	37302
1984-85	31570	14813	86187	38429
1985-86	29580	13808	83651	39800
1986-87	33906	16457	85843	46067
1987-88	35576	18394	97179	53120

Quantity in Tonnes; Value in Rs. lakhs.

Source: Marine Products Export Development Authority, Cochin.

8.12 The export of marine products from Kerala has increased from 33,906 metric tonnes, valued at Rs. 164.57 crores, in 1986-87 to 35,576 metric tonnes, valued at Rs. 183.94 crores, in 1987-88, registering a growth rate of 4.9 per cent in the quantity exported and 11.8 per cent in terms of value. During 1987-88 Kerala accounted for 36.6 per cent of the total quantity exported and about 34.6 per cent of the total export earnings. For item-wise details of marine export see Appendix 8.3.

Spices

8.13 The exports of spices and spices products from India reached a record level during 1987-88. According to the latest estimates, the exports of spices and spices products has touched an all time high of Rs. 298 crores in 1987-88 as against a target of Rs. 280 crores, representing an achievement of 114 per cent. Of the total export earnings Kerala's share is estimated to be around 82 per cent at Rs. 244 crores.

Pepper

8.14 Pepper continued to be the highest foreign exchange spinner among the spices. Its export during 1987-88 touched 39600 metric tonnes valued at Rs. 236 crores as shown in Table 8.6. The earnings from pepper constitute about 80 per cent of the total export earnings from spices.

TABLE 8.6
Export of Pepper

Year	Quantity (M.T.)	Value (Rs. crores)
(1)	(2)	(3)
1982-83	22500	29.00
1983-84	25700	40.80
1984-85	25300	60.00
1985-86	37500	171.90
1986-87	36900	198.60
1987-88	39600	236.00

Source: Spices Board.

8.15 Even though in 1987-88 the quantity exported has increased only by 7.3 per cent, the value realisation has been higher by 19 per cent during this period. Kerala accounts for about 97 per cent of the total pepper production in the country and accounts for almost 100 per cent of the pepper exported.

8.16 It is observed that there has been unprecedented rise in the prices during the last three years, due to the persistence of a global deficit in supply together with speculative activities. However, the prices have shown a declining trend during 1988-89 due to the revival in world supply.

Cardamom

8.17 Kerala accounts for about 61 per cent of the area under cardamom in the country and contributes about 70 per cent of the national production and almost 80 per cent of our total exports. During 1987-88, the export of cardamom from India was depressingly low at 270 metric tonnes valued at Rs. 3.40 crores as against 1447 metric tonnes valued at Rs. 18.50 crores during 1986-87 as given in Table 8.7.

TABLE 8.7

Export of Cardamom

Year	Estimated export from Kerala		Total exports from India		Percentage share of Kerala	
	Quantity	Value	Quantity	Value	Quantity	Earning
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980-81	2015	30.35	2345	34.75	86.0	87.0
1981-82	1980	26.17	2325	30.20	85.0	87.0
1982-83	844	13.75	1032	16.37	82.0	84.0
1983-84	194	4.10	258	5.44	75.0	75.0
1984-85	2170	59.05	2388	64.81	91.0	91.0
1985-86	2994	49.20	3272	53.46	92.0	90.0
1986-87	1268	16.46	1447	18.50	88.00	89.0
1987-88	212	2.67	270	3.40	79.0	79.0

Quantity in Tonnes; Value Rs. in crores.

Source: Spices Board, Cochin

8.18 The export performance of cardamom shows a declining trend after the peak level of achievement in 1983-84. The major reasons are the steady decline in production and productivity in the cardamom growing tracts of India and stiff competition in the international market.

Turmeric

8.19 Kerala's production is roughly estimated at 5000-6000 metric tonnes, a major share of which is exported as Alleppey Turmeric. Data on India's export of turmeric from 1981-82 to 1987-88 is presented in Table 8.8.

TABLE 8.8
Export of Turmeric

Year	Total export from India	
	Quantity (M.T.)	Value (Rs. crores)
(1)	(2)	(3)
1981-82	11990	5.17
1982-83	7590	4.24
1983-84	10890	11.06
1984-85	12800	17.16
1985-86	8560	12.09
1986-87	19530	19.18
1987-88	8750	9.23

Source:—Spices Board, Cochin.

8.20 The export of turmeric in 1987-88 has fallen to 8750 metric tonnes valued at Rs. 9.23 crores from 19530 metric tonnes valued at Rs. 19.18 crores in 1986-87 a decline of almost 55 per cent in quantity exported and 52 per cent in terms of value realised. The export was affected during 1987-88 due to the competition in the international markets with low priced varieties. According to trade sources around 2000-2500 metric tonnes of Alleppey Turmeric was exported from Kerala.

Dry Ginger

8.21 Kerala accounts for 30 per cent of the total area under Ginger and 34 per cent of the total production in the country. About 90 per cent of the exportable variety of ginger is produced in Kerala. The trend in the export of dry ginger from India during the last 6 years is given in table 8.9

TABLE 8.9
Export of Ginger

Year	Total export from India.	
	Quantity (MT)	Value (Rs. crores)
(1)	(2)	(3)
1982-83	3950	5.88
1983-84	4630	11.90
1984-85	7330	18.73
1985-86	6820	10.89
1986-87	4840	5.71
1987-88	2630	4.89

Source:—Spices Board, Cochin.

8.22 On an average export earnings from ginger is around 9 crores per annum. After a peak level of export during 1984-85, it has steadily declined because of a steep fall in production in Kerala and increasing competition from China, the other major supplier of ginger to the world market.

8.23 Eventhough the quantity of ginger exported declined by 46 per cent from 4840 metric tonnes in 1986-87 to 2630 metric tonnes in 1987-88 the export earnings declined only by 14 per cent from 5.71 crores to Rs. 4.84 crores during the year due to a higher unit value realisation.

Cashew

8.24 The export of Cashew kernels during 1987-88 declined by 11.5 per cent in terms of volume and 3.4 per cent in value terms. The export of cashew kernels amounted to 36,949 metric tonnes valued at Rs. 322.71 crores in 1987-88 as against 41,759 metric tonnes valued at Rs. 334.11 crores during 1986-87. However, there has been considerable improvement in unit value realisation from Rs. 80.01 per kg. in 1986-87 to Rs. 87.34 per kg. in 1987-88. The reasons attributed for a fall in our exports are higher price of cashewnuts prevailing in the international market which naturally resulted in buyers' resistance coupled with increased competition mainly from Brazil which had a bumper crop during the year under review. On an average Kerala accounts for about 90 per cent of the total exports of cashew kernels from India.

TABLE 8.10
Export of Cashew Kernels

Year	Kerala		India	
	Quantity (Tonnes)	Value (Rs. crores)	Quantity (Tonnes)	Value (Rs. crores)
(1)	(2)	(3)	(4)	(5)
1982-83	28075	122.44	30195	132.28
1983-84	35245	144.08	36897	150.87
1984-85	31409	174.47	32439	180.54
1985-86	31904	196.16	35153	215.27
1986-87	37508	302.81	41759	334.11
1987-88@	31697	278.42	36949	322.71

Source: Cashew Export Promotion Council.

@ Provisional

8.25 The export of cashewnut shell liquid during 1987-88 was 5584 metric tonnes valued at Rs. 4.03 crores compared to 2716 metric tonnes valued at Rs. 1.45 crores during 1986-87, recording an increase of 177 per cent in value terms and 106 per cent in terms of quantity. There has been an increase of 34.8 per cent, in the unit value during the year as the value per metric tonnes went up to Rs. 7222 in 1987-88 from Rs. 5357 in 1986-87.

TABLE 8.11

Export of Cashew Shell Liquid

Year	Kerala		India	
	Quantity (Tonnes)	Value (Rs. crores)	Quantity (Tonnes)	Value (Rs. crores)
(1)	(2)	(3)	(4)	(5)
1982-83	4260	1.15	5903	1.74
1983-84	1446	0.55	3385	1.36
1984-85	2662	1.13	3411	1.81
1985-86	1574	0.83	2180	1.25
1986-87	1888	..	2716	1.45
1987-88	5372	..	5584	4.03

Source: Cashew Export Promotion Council.

8.26 Imports of raw cashewnuts during 1987-88 were 42,256 metric tonnes valued at Rs. 67.25 crores compared to 49,045 metric tonnes valued at Rs. 69.46 crores during 1986-87. The average unit value of imports increased from Rs. 14.16 to Rs. 15.92 per kg. during this period.

TABLE 8.12

Import of raw Cashewnuts Kerala and India

Year	Kerala (Through Cochin Port)		India	
	Quantity (Tonnes)	Value (Rs. crores)	Quantity (Tonnes)	Value (Rs. crores)
(1)	(2)	(3)	(4)	(5)
1982-83	395	0.38	896	0.77
1983-84	16796	13.77	26877	22.12
1984-85	10115	12.13	33215	36.49
1985-86	7635	8.16	23310	25.88
1986-87*	26529	..	49045	69.46
1987-88*	30499	..	42256	67.25

Source: Cashew Export Promotion Council.

*Provisional.

TABLE 8.13

Export of coffee: Kerala and India

Year	Kerala			India	
	Quantity (M.T.)	Col. 2 as percentage of col. 5	Value (Rs. lakhs)	Quantity (M.T.)	Value (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)
1980-81	47430	53	11464.23	89270	21577.31
1981-82	62092	74	12335.85	83817	16668.07
1982-83	29813	36	7239.10	83824	20353.89
1983-84	28099	39	6914.32	71174	17153.52
1984-85	27724	40	8437.80	68896	20968.50
1985-86	44570	45	12342.64	99298	27498.31
1986-87	31045	36	12997.05	86666	36282.80
1987-88	47150	51	13252.92	92533	26009.56

Source: Coffee Board, Banagalore

Coffee

8.27 India accounts for about 2.4 per cent of the world's export of coffee. As a member of International Coffee Organisation India's share in global quota was fixed at 42,000 tonnes. This has been enhanced to 45,781 tonnes in 1987-88 and 53,922 tonnes in 1988-89.

8.28 The export duty on coffee fixed at Rs. 170 per quintal with effect from May 19, 1987, was reduced to Rs. 100 per quintal with effect from August 18, 1988.

Subsequently from August 26, 1988 the export duty on coffee was abolished.

The Table 8.13 shows the export of coffee, from 1980-81 to 1987-88 of Kerala and India.

8.29 The export of coffee from India is estimated at 92,533 metric tonnes valued at Rs. 260.09 crores during 1987-88, against 86,666 metric tonnes valued at Rs. 362.82 crores during 1986-87. Even though there has been an increase of 6.8 per cent in quantity

exported in 1987-88, the total value realisation has declined by 28 per cent resulting in a fall in the export earnings.

8.30 The export of coffee from Kerala increased to 47,150 metric tonnes valued at Rs. 132.52 crores during 1987-88 as against 31,045 metric tonnes valued at Rs. 129.97 crores in 1986-87. There has been a significant increase in Kerala's share in the total exports as it increased to 51 per cent in 1987-88 as against 36 per cent in 1986-87.

Tea

8.31 Export of tea in 1987-88 was higher at 2.08 lakh tonnes as compared to 1.96 lakh tonnes in 1986-87. Earnings from Tea export were also higher at Rs. 621.7 crores in 1987-88 than Rs. 579.5 crores in 1986-87. The value realisation of tea was only marginally higher at 29.96 kg in 1987-88 as compared to Rs. 29.84 per kg in 1986-87. The details are given in table 8.14.

TABLE 8.14

Export of Tea—India

Year	Quantity (Tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)
1980-81	231,736	43527.30
1981-82	224,200	40682.52
1982-83	194,090	36944.82
1983-84	202,312	55755.49
1984-85	217,401	77138.89
1985-86	214,234	64797.96
1986-87	196,232	57947.83
1987-88*	207,570	62172.00

Source: Tea Board, Calcutta.

*Quick Estimates.

Coir and Coir Products

8.32 During 1987-88 Kerala accounted for the entire export of coir and coir products from India. Of the total exports, coir yarn and coir products have a respective share of 56 per cent and 44 per cent.

8.33 The total export during 1987-88 is estimated at 25,148 metric tonnes valued at Rs. 321.98 crores compared to 23,214 metric tonnes for Rs. 314.45 crores in 1986-87 representing an increase of 8 per cent in quantity and 2 per cent in value.

TABLE 8.15

Export of Coir and Coir Products

Item	1987-88		1986-87	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
Coir Fibre	2	0.17	1	0.09
Coir Yarn	14078	1286.56	12105	1207.73
Coir Mats	6542	1110.03	7924	1354.70
Coir Matting	3217	603.80	2892	534.16
Coir Rugs & Carpets	1236	210.73	236	40.13
Coir Other Sorts	21	2.89	21	3.31
Coir Rope	50	5.18	30	3.13
Curled Coir	*	0.03	..	..
Rubberised Coir goods	2	0.41	5	1.21
Total	25148	3219.80	23214	3144.46

Quantity in Tonnes: Value in Rs. Lakhs

*Negligible Quantity.

Source: Coir Board, Cochin.

8.34 The export during 1987-88 was characterised by substantial increase in the export of coir yarns, coir mattings and coir rugs. The export of coir mats, however, suffered a set back as compared to the previous year.

Imports through Cochin Port

8.35 The total import traffic through Cochin Port during 1987-88 registered a marginal decline by 0.9 per cent to 55.85 lakh tonnes from 56 lakh tonnes in the preceding year, as shown in table 8.16.

TABLE 8.16

Import Traffic Handled by Cochin Port

Commodity	1987-88		1986-87		Percentage variation over 1986-87
	Quantity	Percentage to Total	Quantity	Percentage to Total	
(1)	(2)	(3)	(4)	(5)	(6)
Fertilizer and its raw materials	866576	15.5	885602	15.8	-2.1
Food grains	5494	0.1	340	..	15.59
Cement	..	..	26412	0.5	-100.00
Iron, Steel & Machinery	25549	0.5	8985	0.2	184.4
New Print	12071	0.2	13380	0.2	-9.8
Cashewnuts	30499	0.5	26529	0.5	14.9
Miscellaneous	4644718	83.2	4638841	82.8	0.1
Total	5584907	100.0	5600089	100.00	-0.9

Source: Cochin Port Trust.

8.36 The commodity-wise analysis shows that there has been considerable growth in the import of iron, steel and machinery followed by foodgrains and cashew-nuts during 1987-88 compared to 1986-87. However, the import of Cement, Fertilizer and its raw materials, and newsprint has declined during this period.

8.37 Of the total imports foreign and coastal import account for 28.28 lakh tonnes and 27.57 lakh tonnes,

(see table 8.2). The foreign imports registered an increase of about 46.5 per cent whereas the coastal import declined by about 24.9 per cent in 1987-88 over the previous year. The total value of imports effected through the Cochin Port is estimated, by the Indian Chamber of Commerce and Industry, Cochin, at Rs. 297.53 crores in 1987 as against 272.20 crores in 1986.

CHAPTER 9

SOCIAL SERVICES

Education

General Education

School Education

The School education infrastructure in the State during 1987-88 consisted of 12133 schools comprising 6817 LP Schools, 2885 UP Schools and 2431 High Schools as against 12142 schools consisting 6828 LP, 2884 UP and 2430 High Schools in 1986-87. There seems a slight fall in the number of schools especially in LP Schools. It is reported that the fall is due to amalgamation of schools and withdrawal of recognition of schools during the year under review. Of the total schools in 1987-88, 4473 (36.86%) were Government schools, 7345 (60.5%) private aided and 315 (2.6%) unaided schools. Details are given in Appendix 9.1. During the year 1987-88 no new schools were started.

9.2 One of the problem areas in this context is the existence of a number of uneconomic schools. An uneconomic school is one which do not satisfy the para (1) of Rule 22 A of Kerala Education Rules which warrants that the minimum strength per standard in LP/UP/HS shall be 25. The minimum effective strength per standard in Sanskrit and Arabic Schools shall be 25. There are 650 uneconomic schools in the State of which 278 are in the Government sector and the remaining in the private sector. A district-wise analysis of the situation reveals that Pathanamthitta district has the maximum number followed by Cannanore district. The details are presented in Appendix 9.2.

9.3 The enrolment in schools increased from 25.86 lakhs to 26.37 lakhs in Lower Primary level, 17.90 lakhs to 18.05 lakhs in Upper Primary level, and 13.40 lakhs to 13.46 lakhs in the High School level during the year under review. The total enrolment has gone up to 57.88 lakhs from 57.17 lakhs compared to the previous year. The net increase in enrolment was 71229, the degree of variation being 1.23 per cent (Table 9.1).

9.4 An urban rural wise analysis of the enrolment position brings out the fact that out of the 57.88 lakh students 8.19 lakhs were in urban areas while 49.70 lakhs were in rural areas (Appendix 9.3). Girl students accounted for 28.40 lakhs (49 per cent). This also showed a marginal increase compared to the previous year. The enrolment ratio in 5-9 age group was 96.6 per cent and in 10-14 age group it was 83.9 per cent. See table 9.2. Standard-wise enrolment is furnished in Appendix 9.4.

9.5 The total number of teachers increased to 1.94 lakhs in 1987-88 from 1.92 lakhs in 1986-87. Of this, the number of trained teachers stood at

186,575 and untrained teachers 6959. The teacher pupil ratio was 1:31 in 1987-88 compared to 1:30 in 1986-87. Data on staff strength in schools is presented in Appendix 9.5.

9.6 The number of protected teachers remained the same (i.e., 4748) as that of the previous year. Even though there has been phenomenal increase in the number of schools over the years, many of them do not have the basic amenities. According to a study recently conducted by the Kerala Government Teachers Association, 908 schools do not have clean drinking water, 1700 have no latrines and 2899 do not have playgrounds. A total number of 1388 schools are in thatched sheds and 750 schools in rented buildings.

9.7 A priority list consisting of 1343 construction works has been prepared and it has been decided to take up construction in a phased manner. See Appendix 9.6.

9.8 The Vocational Higher Secondary Education at Plus 2 level was introduced in Kerala during 1983-84. During 1987-88 this course was conducted in 73 schools comprising 54 schools and 19 Technical High Schools, with a total admission capacity of 3625.

9.9 The details of year-wise enrolment under Vocational Education and course-wise intake during 1987-88 are furnished in Appendix 9.7 and Appendix 9.8 respectively.

9.10 The total number of students appeared for SSLC Examination during 1987-88 was 498,773 out of which 224,955 were passed, the percentage being 45.10. Of the total number of students passed 112,398 were girl students (49.96%). The total number of girl students appeared for examination was 241,478, the percentage passed being 46.55. The relevant data are given in Appendix 9.9.

University Education

9.11 There were 172 Arts and Science Colleges including 4 evening colleges during 1987-88. Out of the 172 Colleges 40 were Government Colleges and 132 Private Colleges. These Colleges were affiliated to three Universities, i.e, Kerala (44), Calicut (71) and Mahatma Gandhi (57). From 1982-83 onwards no new colleges were started in the State. The district-wise distribution of Arts and Science Colleges is given in Appendix 9.10.

9.12 The strength of the students at University level increased from 3.13 lakhs during 1986-87 to 3.26 lakhs during the reporting year. The total number of girl students enrolled was 1.69 lakhs. This accounted for 51.84% of the

total. The enrolment was 2,03,509 at pre-degree level, 1,12,991 at degree level and 92,69 at post graduate level during 1987-88 as against 1,97,259, 1,06,517 and 90,16 respectively during the previous year. In all the three stages the enrolment of girls had shown an increasing trend. The particulars regarding the enrolment in Arts and Science Colleges are presented in Table 9.3. The course-wise and subject-wise intake of students of Kerala and Calicut Universities are presented in Appendix 9.11. The strength of the teaching staff increased from 13,374 during 1986-87 to 13,570 during 1987-88. The details are furnished in table 9.4.

Technical Education

9.13 The total number of institutions in 1987-88 comprised 7 Engineering colleges, 47 Technical High Schools, 25 Polytechnics and 19 Pre-vocational training centres.

9.14 The enrolment in Engineering Colleges registered an increase from 9662 in 1986-87 to 10,984 in 1987-88. Out of the total enrolment, girl students accounted for only 2072 i.e. 18.86 per cent. Details regarding number of Engineering Colleges and enrolment etc., in these colleges are presented in Appendix 9.12. In the case of Polytechnics also the enrolment went up to 10,527 during 1987-88 from 9,768 during the previous year. Out of the total strength, girl students constituted only 2,385 i.e., 22.66 per cent. No significant increase was noticed in the enrolment in Technical High Schools. Appendices 9.12 to 9.15 give the number of technical high schools, Polytechnics, Engineering Colleges, enrolment and number of teachers in these institutions. The intake and outturn of Engineering Colleges, Polytechnics and Technical High Schools are given in Appendix 9.16. The course-wise intake and out-turn at Degree/Postgraduate levels are shown in Appendix 9.17.

9.15 The Cochin University of Science and Technology being a full-fledged Science and Technological University offers coaching facilities in different courses of emerging areas of technology. The details of various facilities for study, course, intake etc., are furnished in Appendix 9.18.

9.16 The important autonomous bodies under Technical Education sector are Kerala State Science and Technology Museum, Institute of Human Resources Development in Electronics and the Lal Bahadur Sastry Centre for Science and Technology. Besides this, 7 food craft institutes offered courses such as canning and food preservation, housekeeping, food service management etc.

9.17 There is a placement and training wing under the Directorate of Technical Education and a Supervisory Development Centre functioning at Kalamassery. Degree and Diploma holders in Engineering Technology are selected for apprenticeship training in various Government departments and Quasi Government Organisations as per the Apprenticeship Act of Government of India.

Expenditure on Education

9.18 The total expenditure on education during 1987-88 amounted to Rs. 483.19 crores of which plan expenditure was Rs. 29.99 crores, against Rs. 433.40 crores and Rs. 34.63 crores respectively during the previous year. Out of the total expenditure on Education in 1987-88, 51.65 per cent was on Primary Education while the share of Secondary education was 29.62 per cent. The expenditure on University education increased from Rs. 6,211.88 lakhs during 1986-87 to Rs. 6,609.80 lakhs during 1987-88. Expenditure on technical education increased to Rs. 2,336.57 lakhs during 1987-88 from 2,432.02 lakhs during the previous year. The per capita Government expenditure on education in Kerala registered an increase from Rs. 174 during 1986-87 to Rs. 182 during 1987-88. The details of expenditure on Education is furnished in Table 9.5 and that of per capita expenditure over the years in Table 9.6. The cost of education per pupil at the primary stage increased from Rs. 54.17 in 1966-67 to Rs. 596.67 in 1987-88. At the Secondary stage the cost per pupil went up to Rs. 1,130 in 1987-88, from Rs. 103.81 in 1966-67. Details are given in Table 9.7. The total and per capita expenditure (Statewise) on Education are given in Appendix 9.19.

TABLE 9.1

Enrolment in Schools—stage—wise

Stage	Enrolment		Variation (Nos.)	Variation (Nos.) Per cent
	1986-87 (Nos.)	1987-88 (Nos.)		
(1)	(2)	(3)	(4)	(5)
Lower Primary	2586931	2637094	(+)50163	(+)1.90
Upper Primary	1789699	1805625	(+)15926	(+)0.88
Secondary	1340827	1345967	(+)5140	(+)0.38
Total	5717457	5788686	(+)71229	(+)1.23

Source: * Directorate of Public Instruction

Table-9.2
Enrolment Ratio—1987-88

(in lakhs)

Age group	Population			Enrolment *			Enrolment Ratio		
	Male	Female	Total*	Male	Female	Total	Male	Female	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
5-9	NA	NA	33.78	16.74	15.90	32.64	..	..	96.6
10-14	NA	NA	30.09	12.75	12.50	25.25	..	..	83.9

*Projected population by Sri Ram Kumar, University of Kerala.

Source: Directorate of Public Instruction, Trivandrum.

Table 9.3
Enrolment in Arts and Science Colleges in Kerala—
Stage-wise and University-wise 1987-88*

Name of University	No. of Colleges	Enrolment 1987-88											
		Pre-Degree			Degree			Post-Graduate			Total		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Kerala	44	31871	34287	66158	16335	21022	37357	1080	1638	2718	49286	56947	106233
Calicut	71	38358	29847	68205	17974	18963	36937	1478	1034	2512	57810	49844	107654
Mahatma Gandhi	57	31235	37911	69146	16891	21806	38967	1873	2164	4039	50001	61881	111882
Total	172	101464	102045	203509	51200	61791	112991	4433	4836	9269	157097	168672	325769

*Provisional.

Table 9.4
Number of Teachers in Arts and Science Colleges 1986-87 and 1987-88

Name of University	Number of Teachers					
	1986-87			1987-88		
	Men	Women	Total	Men	Women	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Kerala	2373	1791	4104	2569	1720	4289
2. Calicut	3005	1564	4569	2988	1595	4579
3. Mahatma Gandhi	3051	1650	4701	3054	1654	4708
Total	8429	4945	13374	8611	4959	13570

Table 9.5

Expenditure on Education—Stage-wise 1986-87 & 1987-88

Stage (1)	(Rs. lakhs)					
	1986-87 (Accounts)			1987-88 (Revised Estimate)		
	Plan (2)	Non-plan (3)	Total (4)	Plan (5)	Non-plan (6)	Total (7)
I Primary Education	1370.02	23262.45	24632.47 (51.52)	1285.00	25219.09	26504.09 (51.65)
II Secondary Education	409.95	13566.63	13976.58 (29.23)	138.80	15061.18	15199.98 (29.62)
III Special Education	28.46	229.02	257.48 (0.54)	25.00	230.54	255.54 (0.50)
IV University and Other Higher Education	420.16	5791.72	6211.88 (13.00)	326.62	6283.18	6609.80 (12.88)
V Technical Education	1048.02	1375.00	2423.02 (5.07)	919.03	1417.54	2336.57 (4.55)
VI Others	191.56	114.80	306.36 (0.64)	304.00	107.45	411.45 (0.80)
Total	3468.17	44339.62	47807.79 (100.00)	2998.45	48318.98	51317.43 (100.00)

Figures in bracket indicate percentage to total.

Source: Detailed Budget 1988-89.

TABLE 9.6

Per Capita Government Expenditure on Education in Kerala

Year (1)	Population (Lakhs) (2)	Government expenditure on education (Rs. lakhs) (3)	Index of growth (4)	Per Capita expenditure (5)	Index of growth (6)
1961-62	173.02	1854.84	100	10.72	100
1966-67	194.35	2774.60	150	14.27	133
1971-72	218.29	6614.87	357	30.30	283
1976-77	239.50	14102.81	760	58.88	549
1980-81	253.84	21098.54	1137	83.12	775
1981-82	254.03	24251.00	1307	95.46	890
1982-83	259.49	26527.29	1430	102.23	954
1983-84	268.47	30709.23	1656	114.39	1067
1984-85	270.05*	34595.27	1865	128.10	1194
1985-86	274.05*	41308.68	2227	150.73	1506
1986-87	275.06*	47807.79	2577	173.80	1621
1987-88	282.06*	51317.43	2766	181.94	1697

Source: *Projected School Age Population of Kerala, 1981-91 by R. Ramkumar.

37/1052/MC.

TABLE 9.7

Cost of Education per Pupil from 1966-67 to 1987-88

Year	Primary Stage (Rs.)	Percentage increase from previous year	Secondary stage (Rs.)	Percentage increase from previous year
(1)	(2)	(3)	(4)	(5)
1966-67	54.17	..	109.81	..
1980-81	265.24	..	454.25	..
1981-82	298.18	12.41	536.37	18.08
1982-83	326.13	9.37	589.41	9.89
1983-84	372.62	14.25	657.60	11.57
1984-85	414.43	11.22	737.31	12.12
1985-86	479.23	15.64	906.91	23.00
1986-87	563.03	17.49	1043.00	15.00
1987-88	596.67	5.86	1130.00	8.34

Health—Allopathy

9.19 There has been tremendous progress in the medical care system in terms of infrastructure, manpower and services in Kerala. As a result, life expectancy at birth in Kerala has gone up from 52 years in 1981 to 68 years in 1986 as against the All India life expectancy of 56 years. For every 36 sq. km. there is one allopathic hospital/dispensary in the State. As a result of the substantial increase in health facilities, Kerala's health standards are almost comparable to that of developed countries in the World.

9.20 The birth rate has come down from 22.9 in 1985 to 22.4 in 1986, and the infant mortality rate has decreased to 27 in 1986 from 33 in the previous year. The relevant data are given in the following table.

TABLE 9.8
Birth rate, Death rate and Infant Mortality
rate for different years

Year	Birth rate per '000 population	Death rate per '000 population	Infant Mortality Rate
(1)	(2)	(3)	(4)
1941-50	39.8	22.3	153
1951-60	38.9	16.9	120
1968	34.3	10.4	74

1970	32.3	9.2	61
1980	26.8	7.0	42
1981	25.6	6.6	37
1985	22.9	6.4	33
1986*	22.4	6.7	27

*Source:—KANFED POPED NEWS VOL. II
No. 3 October 1988.

9.21 There were 1066 institutions with 36,668 beds in 1987-88 as against 1038 institutions with 36,404 beds in 1986-87. The health facilities consisted of 141 hospitals with 27,212 beds, 577 Primary Health Centres (including MCH units) with 3,274 beds, 188 dispensaries with 409 beds, 20 T.B. Centres/Clinics with 325 beds, 7 Leprosy Control Units, 29 Community Health Centres with 2,226 beds, 79 Subsidiary Health Centres with 289 beds and 25 Grant-in-aid Institutions with 2,933 beds. The number of Primary Health Centres has increased from 444 in 1986-87 to 577 in 1987-88. The bed population ratio is 127 during 1987-88 compared to 128 in the previous year. There is a small decrease in the bed population ratio which is due to the increase in the estimated population in 1988. District-wise distribution of medical institutions and beds is given in Appendix 9.20. The statement showing the number of patients treated for principal diseases during 1986-87 and 1987-88 is given in Appendix 9.21.

TABLE 9.9

Number of Medical Institutions and Beds in Kerala

Year	No. of Medical Institutions	Index of growth	No. of Beds	Index of growth	No. of beds per lakh of population
(1)	(2)	(3)	(4)	(5)	(6)
1976-77	888	100	27,607	100	113
1977-78	898	101	28,862	105	116
1978-79	898	101	29,947	108	119
1979-80	918	103	30,220	109	119
1980-81	968	109	32,447	118	127
1981-82	991	112	32,532	118	126
1982-83	1005	113	32,880	119	125
1983-84	1009	114	33,380	121	124
1984-85	1014	114	33,529	121	124
1985-86	1015	114	35,744	129	128*
1986-87	1038	116	36,404	132	128*
1987-88	1066	120	36,668	132	127*

Source: D.H.S.

* Based on the projected population of Kerala—Department of Economics and Statistics.

TABLE 9.10

District-wise Distribution of the Number of Medical Institutions and Beds under Allopathy

District	Number of Medical Institutions		Number of Beds		No. of Beds per lakh of population	
	1986-87	1987-88	1986-87	1987-88	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	101	102	6540	6529	226	222
Quilon	70	73	1973	1973	80	79
Alleppey	74	77	4193	3943	201	186
Pathanamthitta	48	52	887	1501	72	119
Kottayam	70	72	3581	3871	189	201
Idukki	51	52	499	499	46	45
Ernakulam	105	106	3859	3796	136	132
Trichur	101	102	4018	3790	148	137
Palghat	85	88	1623	1595	71	68
Malappuram	97	99	1406	1346	52	49
Kozhikode	69	71	4224	4224	169	166
Wayanad	33	34	590	590	95	94
Cannanore	84	86	2403	2403	111	110
Kasargode	50	52	608	608	62	61
Kerala	1038	1066	36404	36668	128*	127*

Source: D.H.S.

* Based on projected population of Kerala—Department of Economics and Statistics.

TABLE 9.11
Number of patients treated under Allopathy—District-wise

District	Number of Patients Treated		
	Inpatients	Out-patients	Total
(1)	(2)	(3)	(4)
Trivandrum	1,89,114	36,55,324	38,38,438
Quilon	1,23,836	19,07,579	20,31,415
Alleppey	1,06,704	16,19,402	17,26,106
Pathanamthitta	33,460	9,28,828	9,62,288
Kottayam	97,566	20,75,528	21,73,094
Idukki	26,139	9,37,458	9,63,591
Ernakulam	1,53,122	33,35,762	34,88,884
Trichur	1,30,576	28,95,330	30,25,906
Palghat	1,15,975	21,54,136	22,70,111
Malappuram	1,17,407	30,30,236	31,47,643
Kozhikode	99,800	23,22,752	24,22,552
Wayanad	70,935	6,68,884	7,39,819
Cannanore	1,22,063	16,13,857	17,35,920
Kasargode	39,310	7,42,958	7,82,268
Kerala	14,20,001	178,88,034	193,08,035

Source: D.H.S.

TABLE 9.12
Medical and Para-medical Personnel in the Health Services Department

Sl. No.	Category	Number in		
		1986	1987	1988
(1)	(2)	(3)	(4)	
1.	Medical Officers	3514	3514	2831
2.	Dentists	71	71	64
3.	Senior Nurses	932	1024	1733
4.	Junior Nurses	4589	4589	4416
5.	Lady Health Inspectors	600	1009	690
6.	Pharmacists	1626	1731	1620
7.	Junior P.H. Nurses (ANMs)	3919	4236	4484
8.	Junior Health Inspectors	2583	3381	3381
9.	Health Inspectors	1076	845	845
Total		18910	20400	20064

Source: D.H.S.

TABLE 9.13

Details of Registered Medical Practitioners in the State

System (1)	Class of Registration (2)	Number in	
		1986-87 (3)	1987-88 (4)
1. Modern Medicine	A	15,000	15,847
	B	635	635
	Listed	204	204
	Sub Total	15,839	16,686
2. Homoeopathy	A	3,019	3,246
	B	1,486	1,486
	Listed	279	279
	Sub Total	4,784	5,011
3. Ayurveda	A	5,203	5,348
	B	6,100	6,100
	Listed	599	599
	Sub Total	11,902	12,047
4. Siddha	A	61	61
	B	1,218	1,218
	Listed	41	41
	Sub Total	1,320	1,320
5. Unani	A	1	1
	B	51	51
	Listed	5	5
	Sub Total	57	57
Grand Total		33,902	35,121

Source: Registrar of Medical Councils

TABLE 9.14

List of Registered Para-medical Practitioners

(Numbers)

Sl. No.	Category (1)	1986-87			1987-88		
		Male (2)	Female (3)	Total (4)	Male (5)	Female (6)	Total (7)
1.	Nurse	244	10,627	10,871	251	12,022	12,273
2.	Midwife	..	10,565	10,565	..	10,962	10,962
3.	Nurses and Midwives (integrated)	..	8,394	8,394	..	9,512	9,512
4.	Auxiliary Nurse—Midwives	..	6,635	6,635	..	7,514	7,514
5.	Health Visitors	..	313	313	..	316	316
Grand Total		244	36,534	36,778	251	40,326	40,577

Source: Registrar of Medical Councils.

Medical Education

9.22 There are five medical colleges in the State at Trivandrum, Kottayam, Alleppey, Trichur and Calicut. All the medical colleges together have a total intake capacity of 700 for M.B.B.S course. There are two Dental Colleges—one at Trivandrum (40 seats) and the other at Calicut (30 seats). There are three Nursing Colleges at Trivandrum, Kottayam and Calicut. Intake for B.Sc. Nursing is 75. There are about 524 seats for different para-medical courses

and 171 seats for post-doctoral diploma courses of two years duration. For post doctoral-degree courses there are 242 seats. Except M.D. Psychiatry, all the courses are offered in Trivandrum Medical College. In Alleppey Medical College, M.D. course in General Medicine and M.S. in General Surgery only are offered. There are 23 seats in the state for super speciality courses like MCH and D.M. Details of courses conducted in the Medical Colleges together with the intake capacity are given in Appendices 9.22 & 9.23.

*Indian Systems of Medicine
Ayurveda*

9.23 There were 97 Ayurveda hospitals, 497 dispensaries and 228 grant-in-aid vaidyasalas at the end of the year 1986-87. During the year under review three dispensaries were upgraded as 10 bedded hospitals, one dispensary from the Scheduled Caste Development Department was transferred to the Department of Indian Systems of Medicine and 10 beds from the Ayurveda Hospital, Kottakkal were shifted to the Ayurveda Collegiate Hospital, Kottakkal retaining the O.P. section at Kottakkal itself. Sanction has also been accorded for opening a new Ayurveda Hospital at Paravoor with 30 beds. Thus there were a total number of 101 hospitals and 496 dispensaries at the end of the year 1987-88. This includes a mental hospital, two visha vaidya hospitals, a marma hospital, a panchakarma hospital and a nature cure hospital.

9.24 During 1987-88 two district offices at Pathanamthitta and Kasaragode were sanctioned, making the total number of district offices to 14. The total number of patients treated during the year was nearly 43 lakhs. The district-wise details of institutions, beds and the number of patients treated are given in Appendix 9.24.

9.25 There are two Government Ayurveda Colleges in the State at Trivandrum and Thrippunithura. Description of various courses conducted in the Ayurveda Colleges at Trivandrum and Thrippunithura during the year 1987-88 are given in the following tables.

TABLE 9.15

*Courses offered and admission to the courses in the
Ayurveda College, Trivandrum during 1987-88*

Course	Nature of course (Degree/Diploma/Certificate)	Annual Intake of students		
		Total Number	S. C. Students	S. T. Students
(1)	(2)	(3)	(4)	(5)
a. Ayurveda Nurses' Training Course	Certificate	50	5	..
b. Ayurveda Pharmacists Training Course	Certificate	40	4	1
c. Diploma in Agadatantra	Diploma (2 years)	15	1	..
d. M.D.(Ay.) Course	P.G.Degree	24	2	..
e. B.A.M.S.	Degree	50	4	..

TABLE 9.16

*Courses offered and admission to the courses in the
Ayurveda College, Thrippunithura during 1987-88*

Course	Annual Total number	Intake of Students	
		S. C. Students	S. T. Students
(1)	(2)	(3)	(4)
I BAMS	23	2	..
II BAMS	28	4	..
III BAMS	24	2	..
IV BAMS	30	5	..
V BAMS	28	2	..

Homoeopathy

9.26 The number of homoeopathic hospitals and dispensaries remained at 24 and 255 respectively as in the previous year. The number of dispensaries functioning under the Special Component Plan and the Tribal Sub Plan were five and three respectively during the period under review. The number of patients treated increased from 70 lakhs in 1986-87 to 99 lakhs in 1987-88. Two district offices were sanctioned during 1987-88 at Pathanamthitta and Kasargod districts.

9.27 There were 6 homoeopathic colleges of which 3 were offering degree courses and 3 diploma courses. The S.C./S.T. reservation is 10 per cent in degree colleges and 20 per cent in diploma colleges. The district-wise details of institutions, beds and patients treated are furnished in Appendix 9.25.

Family Welfare

9.28 The declared objective of the Government is to reduce the Net Reproduction Rate to one by 2000 AD. Kerala's present rate is 1.3 as against 1.67 for all India. The family welfare services are rendered to the public through a network of 164 rural family welfare centres and 74 urban centres including Post-Partum centres attached to institutions run by Government, Voluntary organisations and local bodies. The number of P.P.S. operations increased from 129,424 in 1986-87 to 130,793 in 1987-88. The number of CuT insertions which was 75,585 during 1986-87 increased to 85,474 during 1987-88. The district-wise details are furnished in Appendix 9.26. The expenditure under Family Welfare Programmes since 1980-81 is given in table 9.17. The target and achievement of Family Welfare Programme for 1987-88 is given in Appendix 9.27.

TABLE 9.17

Expenditure on Family Welfare Programmes

Year	Amount (Rs. lakhs)
(1)	(2)
1980-81	590.20
1981-82	687.08
1982-83	785.59
1983-84	1176.47
1984-85	1930.99
1985-86	2510.22
1986-87	3130.33
1987-88 (R.E.)	4214.44

Source: Budget Document.

Trend in Government Expenditure on Health

9.29 The expenditure under health sector has gone up from Rs. 11375.93 lakhs in 1986-87 to Rs. 11756.21 lakhs in 1987-88 which registered an increase of 3.3 per cent over the previous year. The Allopathy system accounted for 89.15 per cent while Ayurveda and Homoeopathy systems shared 8.50 per cent and 2.31 per cent respectively. The share of Siddha system was 0.04 per cent. The percapita expenditure on health

increased from Rs. 50.13 in 1986-87 to Rs. 55.37 in 1987-88 (Tables 9.18 and 19.19).

A comparative statement on State-wise percapita expenditure is given in Appendix 9.28. Percapita expenditure on health in Kerala has gone up from Rs. 7 in 1970-71 to Rs. 32 in 1980-81 and Rs. 61 in 1986-87 while the corresponding figures for all India are Rs. 6, Rs. 24 and Rs. 43 respectively.

TABLE 9.18

Expenditure under Health other than Family Welfare

(Rs. lakhs)

Items (1)	1986-87 (Accounts)			1987-88 (R.E.)		
	Plan (2)	Non-plan (3)	Total (4)	Plan (5)	Non-plan (6)	Total (7)
1. Allopathy	1604.48	8651.98	10256.46 (90.16)	1088.69	9391.88	10480.57 (89.15)
2. Ayurveda	127.27	756.41	883.68 (7.77)	138.78	859.75	998.53 (8.50)
3. Siddha	..	3.98	3.98 (0.03)	1.00	4.02	5.02 (0.04)
4. Homoeopathy	68.10	163.71	231.81 (2.04)	76.90	195.19	272.09 (2.31)
Total	1799.85	9576.08	11375.93 (100.00)	1305.37	10450.84	11756.21 (100.00)

(Figures in bracket indicate percentage to total)

TABLE 9.19

Per capita Expenditure on Medical and Public Health

(Rs. lakhs)

Year (1)	Population (lakhs) (2)	Expenditure on Health including Family Welfare (3)	Index of Growth (4)	Expenditure per head (Rs.) (5)	Index of Growth (6)
1980-81	253.84	4857.25	100	19.13	100
1981-82	254.03	5811.56	120	22.88	119
1982-83	259.49	5907.12	122	22.76	119
1983-84	268.47	6946.80	143	25.88	135
1984-85	270.05	8841.13	182	32.73	170
1985-86	274.05	11082.09	228	40.44	211
1986-87	275.06	13789.93	284	50.13	262
1987-88	288.39*	15970.65	328	55.37	289

*Source: Projected Population of Kerala—Department of Economics & Statistics.

Housing

9.30 About twenty two agencies including Government departments and autonomous bodies are engaged in the implementation of housing programmes in the state. Of these the major agency is the Kerala State Housing Board. At present the Housing Board is implementing 11 housing schemes. Apart from the Public Housing Scheme, Co-operative Housing Scheme for Economically Weaker Sections, Subsidised Self Help Housing Scheme Stage II and Rehabilitation Housing Scheme are the major schemes of the Board. The number of houses constructed under each of the above three schemes during 1987-88 was 766, 2477 and 35,000 respectively.

9.31 The Rehabilitation Housing Scheme was started in 1985 to help the economically weaker sections of people whose houses were damaged by natural calamities. Beneficiaries of the scheme were given loan assistance of Rs. 4500 and government subsidy of Rs. 1500 for constructing a house costing Rs. 6000 in rural areas. In the case of urban areas the cost per house could go up to Rs. 9100. However the balance amount of Rs. 3100 has to be met by the beneficiary himself. Since the Co-operative Housing Scheme for Economically Weaker Sections and the Subsidised Aided Self Help Housing Scheme do not have much basic difference with this, they have been merged with the Rehabilitation Housing Scheme.

9.32 During 1987-88 the Kerala State Development Corporation for SC/ST has continued to implement all the three ongoing housing schemes which were started in 1978, 1980 and 1984. During the year under report 1916 houses were completed and the Corporation provided financial assistance of Rs. 19.98 lakhs for this purpose. The Corporation has received a sum of Rs. 34.55 lakhs as loan from HUDCO and

Rs. 15 lakhs as grant from the Government during the year. Till the end of 1987-88 the Corporation has extended financial assistance for the construction of 29,088 houses by incurring an expenditure of Rs. 1251.54 lakhs including subsidy and loan.

9.33 The Kerala State Co-operative Housing Federation Ltd.; has 207 primary housing societies affiliated to it. The Federation extends financial assistance for house construction through these primary societies. It raises funds by way of shares, debentures, borrowings from LIC, HUDCO and Government. The authorised share capital of the Federation is Rs. 1000 lakhs made up 10 lakh shares of Rs. 100 each and paid up share capital of Rs. 722.05 lakhs as on 31-3-1988. Till the end of March 1988 the Federation has disbursed an amount of Rs. 9469.4 lakhs for the construction of 33940 housing units. Of this Rs. 1380 lakhs have been disbursed during 1987-88 for the construction of 8658 houses. The construction work of 29684 houses was already completed and the remaining 4256 houses are under various stages of construction. The federation has also received a loan of Rs. 1100 lakhs from the LIC during the year.

9.34 The Board of Revenue is the major Government department involved in housing activity. Of the seven housing schemes implemented by the Board the most important are the schemes for allotment of house sites to landless rural workers and the scheme for providing construction assistance to rural workers. During the period under report 1869 house sites were distributed to landless workers in rural areas incurring an expenditure of Rs. 96 lakhs. During the year under review 366 rural workers were given financial assistance for construction of houses for which an amount of Rs. 7.55 lakhs was spent.

Table 9.20

Housing Scheme (MNP) implemented by the Board of Revenue

Year	Allotment of Sites			Expenditure (Rs. lakhs)	Construction of Houses		
	No. of sites allotted	S.C.	S.T.		No. of persons assisted	S.C.	S.T.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1980-81	6248	700	198	102.72	1503	393	11
1981-82	6605	525	100	90.22	1828	640	16
1982-83	8024	400	111	72.15	1254	987	25
1983-84	3144	420	115	76.13	894	291	11
1984-85	4841	691	129	200.61	1235	498	15
1985-86	5151	2125	68	111.36	888	318	17
1986-87	5517	2237	84	150.00	974	386	21
1987-88	1869	883	NA	95.86	366	139	NA

9.35 During 1987-88 the Scheduled Caste Development Department has given financial assistance for the construction of 1166 houses incurring an expenditure of Rs. 56.50 lakhs. A sum of Rs. 40.27 lakhs was spent by the Tribal Development Department during the year for the construction of 350 houses to people belonging to scheduled tribes. Tribal housing is a hundred per cent subsidised scheme and the state P.W.D. and the Tribal Development Department are entrusted with the task of constructing the houses. Moreover a total of 7560 houses were completed under NREP.

9.36 The House building advance scheme to government employees for the construction, completion, extension and repairs of residential buildings is operated by the Finance Department. At present the maximum amount given as advance under the scheme is Rs. 60000 or 40 times the basic pay whichever is less. The rate of interest charged is 9% per annum. The number of monthly instalments admissible for

repayment including interest is 216. Separate fund is earmarked every year for SC/ST employees under Special Component Plan. The provision for house building advance for 1987-88 was Rs. 8.30 crores—Rs. 7 crores under non plan, Rs. 1.17 crores under plan and Rs. 13 lakhs under Special Component Plan. However the expenditure made was Rs. 793.32 lakhs and the number of employees who received advance under the scheme during 1987-88 were 2350.

9.37 A brief survey of the major housing programmes implemented in the State during the year will show that the main plank of the government policy in the sector continues to be the one which would enable the poorer sections to get maximum assistance. Government together with a few autonomous bodies have given financial assistance for the construction of a little over 60,000 houses during the year under review.

TABLE 9.21

Achievement in Housing—Major Schemes

Sl.No.	Name of the Scheme	Expenditure		Physical Achievements	
		1986-87	1987-88	1986-87	1987-88
	(1)	(2)	(3)	(4)	(5)
1.	Provision of house-sites to rural landless workers	150.00	95.86	5517	1869
2.	Huts/Houses for rural workers	11.27	11.99	974	966
3.	Middle Income Group Housing	14.4	19.82	59	22
4.	Co-operative housing scheme for economically weaker sections	..	..	2625	766
5.	Subsidised aided self help housing scheme with co-operation of voluntary agencies	..	42.88	2090	2477
6.	Rental Housing Scheme	19.58	8.64	..	..
7.	Public Housing Scheme	311	383.93	613	544
8.	Kudikidappukar Housing	..	1.47	212	..
9.	Scheduled Caste Development Corporation	55.55	19.78	2215	1916
10.	Tribal Welfare Department	37.00	40.27	90	350
11.	Scheduled Caste Development Department	1.58	56.50	159	1166
12.	Kerala Fishermen Welfare Corporation	119.83	65.00	2290	3870
13.	Kerala State Co-operative Housing Federation	1894	1380	8387	8658
14.	Rehabilitation Housing Scheme	..	..	85364	35000

Sewerage and Water Supply

9.38 Over the years of development effort, Kerala could provide protected drinking water to 82 per cent of the urban population and 39 per cent of rural population. The number of towns having protected water supply increased to 35 in 1987-88 against 34 in the previous year. There are 13 urban water supply schemes under implementation. As regards rural water supply 89 schemes could be completed during the

year under review. As on 31-3-1988 six problem villages were fully covered and 1158 problem villages were partially covered. An additional population of 17 lakhs could be benefited during the year. The district-wise details of the number of schemes and population covered is provided in Table 9.22. State-wise position regarding coverage of rural water supply and also the percentage coverage of urban and rural population under potable supply as at the end of 1984-85 are given in Appendixes 9.29 and 9.30.

TABLE 9.22

Population Covered and Number of Schemes in operation under Urban and Rural Water Supply Schemes

District	Urban Water Supply		Rural Water Supply			
	No. of towns having Protected Water Supply		Percentage of Urban population covered		No. of Schemes in operation	No. of Schemes completed
	1986-87	1987-88	1986-87	1987-88	1987-88	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	9	9	84	84	161	5
Quilon	2	2	63	63	124	..
Pathanamthitta	1	1	..	..	17	9
Alleppey	4	4	85	85	170	4
Kottayam	4	4	76	76	167	5
Idukki	..	..	..	..	79	3
Ernakulam	5	6	85	87	215	9
Trichur	6	6	75	75	193	7
Palghat	2	2	62	62	183	16
Malappuram	2	2	57	57	143	10
Kozhikode	2	2	71	71	129	18
Wayanad	..	..	..	..	15	2
Cannanore	2	2	60	60	171	5
Kasaragode	1	1	..	..	18	2
Total	34	35	..	..	1780*	89

*Includes borewell schemes also.

9.39 The water supply schemes implemented in the State are broadly categorised into LIC aided schemes, World Bank and bilaterally aided schemes, Centrally Sponsored Accelerated Rural Water Supply Schemes and other urban and rural water supply schemes implemented with State funds.

L.I.C. aided and Externally Aided Schemes

9.40 There are 13 urban water supply schemes and 23 rural water supply schemes implemented with assistance from LIC. Of these three of the urban water supply schemes are scheduled to be completed during 1989-90. The progress of work of the remaining urban schemes is slow.

9.41 There are 7 water supply schemes and 2 low cost sanitation schemes being implemented with assistance from World Bank. The total cost of these schemes amounts to Rs. 86.40 crores as per the project estimates. On completion it is expected that a population of 16.06 lakhs would be additionally benefited from these schemes.

9.42 Out of 11 bilaterally assisted water supply schemes 8 are being implemented with assistance from Netherlands. The total project cost (revised) is Rs. 27.63 crores. On completion, these schemes would benefit a population of 17.2 lakhs. The project cost for the 3 Danish assisted water supply schemes amounts

to Rs. 14.28 crores. On completion, these schemes would benefit a population of 7.39 lakhs.

9.43 During the year 1987-88 Rs. 660 lakhs was received from LIC and Rs. 15.33 crores from external agencies for implementing rural as well as urban water supply schemes. The flow of funds for implementing water supply schemes from different sources other than the State Government is provided in Table No. 9.23.

TABLE No. 9.23

Flow of funds from LIC, Government of India and External Agencies (Rs. lakhs)

Year	Flow from		Government of India (ARWS)
	LIC	External Agencies	
(1)	(2)	(3)	(4)
1980-81	166.00	..	328.40
1981-82	273.70	..	526.25
1982-83	430.00	..	641.00
1983-84	469.05	523.38	1571.30
1984-85	471.00	268.70	1471.30
1985-86	543.61	606.12	1085.00
1986-87	600.00	729.14	1213.00
1987-88	660.00	1533.24	1398.32

Expenditure

9.44 The total plan and Non plan expenditure on sewerage and water supply scheme during 1987-88 was about Rs. 63.13 crores. Of this Rs. 6.74 crores 1987-88 was about Rs. 63.13 crores. Of this Rs. 7.74 crores was for sewerage/drainage schemes and Rs. 56.39 crores was for urban and rural water supply schemes. The total plan expenditure on urban water supply schemes was about Rs. 410 lakhs, where as the plan expenditure on rural water supply schemes was about Rs. 32.79 crores. The non-plan expenditure for urban and rural water supply schemes were Rs. 16 crores and Rs. 3.5 crores respectively. Year-wise expenditure on urban and rural water supply schemes and sewerage schemes is provided in appendix 9.31.

Urban Development

9.45 Kerala has an urban population of about 48 lakhs according to 1981 census. This accounted for 18.8 per cent of the total population. The urban area amounts to 4.6 per cent of the total area in the state.

9.46 The urban development schemes in the State are implemented by the departments of Town Planning, Municipal Administration, three City Corporations, nine Development Authorities, 42 Municipalities and 2 Township Committees. Besides, there are 142 panchayats which satisfy all urban characteristics in the State. The Kerala Urban Development Finance Corporation is providing financial assistance by way of loans and advances for their development schemes.

9.47 The Kerala Urban Development Finance Corporation upto 31-3-1988 assisted 411 projects/schemes of the various urban bodies. It disbursed more than Rs. 32 crores since inception. Out of the total number of projects assisted 327 were completed. During 1987-88 the Corporation assisted 24 schemes and Rs. 1.4 crores was dispersed. Out of the schemes taken up during 1987-88, 12 schemes were completed.

9.48 The Town Planning Department is entrusted with the task of preparation of development plans for urban and rural areas. It also gives technical guidance to development authorities and local bodies for enforcement and implementation of development plans. During the year under review the department prepared 12 draft detailed town planning schemes and forwarded to local bodies for implementation. During the period, the department prepared 35 project reports for environmental improvement of slums, 40 layout plans for local bodies, approved 96 factory sites and cleared about 2200 buildings plans. The department continues to guide the six development authorities—Quilon, Kottayam, Palghat, Trichur, Idukki and Veloor—Mulakkulam. There are three regional offices functioning under the Town Planning Department at Trivandrum, Ernakulam and Calicut. District Planning Units have been started in all Districts except Wayanad and Kasaragode.

9.49 The Department of Municipalities implemented four schemes viz. Non-remunerative Town Improvement Scheme, Integrated Development of Small and Medium Towns, Environmental Improvement of Towns and the Urban Basic Services. Out of 162 projects already sanctioned under environmental improvement of slums only 133 schemes were completed by the end of 1988 and about 10,000 population could be covered during 1987-88. The urban basic services scheme is implemented in Ernakulam and Alleppey districts. During the year under review seven projects were sanctioned under non-remunerative town improvement works and the integrated development of small and medium towns scheme is under implementation in twelve towns.

9.50 The Trivandrum Development Authority has formulated 17 detailed Town Planning Schemes out of which 9 schemes were sanctioned. During the year 1987-88, it has completed the construction of the medical college phase II complex. Under housing scheme with financial assistance from HUDCO it has assisted construction of 500 houses under different categories.

9.51 The Greater Cochin Development Authority constituted in 1976 has 30 detailed town planning scheme under implementation for which about 300 acres of land has been acquired and developed. The Authority has so far constructed 15,984 houses raising funds from agencies like HUDCO. Under slum improvement scheme 447 houses were constructed. The investment made by the Authority upto 31-3-1987 is Rs. 3486.76 lakhs.

9.52 During 1987-88 an amount of Rs. 60.7 crores was expended. Calicut Development Authority constituted in 1980 has so far expended Rs. 388.38 lakhs for activities like construction of roads, houses, commercial buildings, bus stands etc. During 1987-88 an amount of Rs. 171.80 lakhs was spent under housing scheme, road works and construction of commercial building.

Labour and Labour Welfare

Industrial Training Institutes

9.53 There are 22 Government ITIs and 228 Private ITCs in the State with intake capacities 10,192 and 23,380 respectively. District-wise number and seat strength of Government ITIs and Private ITCs in the State are given in Appendix 9.32. Three Government ITIs are exclusively for women. About 20 per cent of the total students in ITIs are women. During 1988, 21,454 students appeared for examination and 10,228 persons (47.5 per cent) passed. The department imparted training to 356 children of workers sponsored by Kerala Labour Welfare Fund Board in 11 Government ITIs and to 144 SCIST students sponsored by the Scheduled Caste Development Department in 9 Government ITIs.

The Regional Vocational Training Institute for women, Kazhakootam, started with UNDP assistance, gives training in emerging areas. The Advanced Vocational Training Institute, Ernakulam, imparts advanced training to industrial workers.

9.54 During 1988 apprenticeship training was given to 3,924 persons in 59 trades through eight Related Instruction Centres.

9.55 Out of 22 Government ITIs 11 do not have permanent affiliation with NCVT due to lack of equipment and infrastructure and lack of adequate number of trained Instructors. A scheme for the modernisation of ITIs is being implemented in the State with World Bank assistance as part of a national programme which is spread over a period of 7 years from 1988-89 to 1994-95, with an investment of about Rs. 18 crores.

Special Programmes for the Weaker Sections

Poverty alleviation programmes have been given more stress in our development strategy in recent years. Under Integrated Rural Development Programme, the family level investment steadily increased to nearly Rs. 6200 per family as on 31-12-1988. Other remarkable achievements were creation of 184.07 lakh mandays of employment under NREP and RLEGP and the distribution of 759 acres of surplus land to the landless upto 31-12-1988.

Integrated Rural Development Programme (IRDP)

10.2 The Integrated Rural Development Programme (IRDP) is a major poverty alleviation programme funded by the centre and the State on 50:50 basis. The objective of the programme is to assist selected families below the poverty line in rural areas to overcome poverty by taking up self employment ventures. For achieving this objective, it provides income generating assets for the families in the target group through a package of assistance comprising of subsidy and institutional credit.

10.3 The total funds available under IRDP for 1987-88 was Rs. 1835.559 lakhs. The total expenditure during the year including administrative expenditure amounted to Rs. 1927.43 lakhs. The programme envisages a second dose of assistance to families already assisted during the VI Five Year Plan period, but are yet to cross the poverty line. The number of beneficiaries assisted with a second dose of assistance upto 30-9-1988 was 12,632.

10.4 The performance of IRDP during 1986-87 and 1987-88 is given in Table 10.1. During 1987-88 under IRD Programme, 1,10,684 families which included 78,730 old families and 31,954 new families were assisted which was 96.2% of the target. It included 34,059 SC/ST families and 38,029 women. The percentage coverage of SC/ST families and women were 30.8% and 34.4% respectively.

10.5 The subsidy disbursed during the year was Rs. 1575.02 lakhs, out of which Rs. 499.78 lakhs was for the benefit of women and Rs. 467.23 lakhs exclusively for the benefit of SC/ST families. Total loan disbursed through the banks during the year was Rs. 3370.15 lakhs. The per family investment in respect of old families was Rs. 3,766 and in respect of new families was Rs. 6,197. Kerala is one of the few States that exceeded the target in respect of the achievement of per family investment in the case of new families. According to the concurrent evaluation undertaken by the Government

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of India, majority of the families assisted belonged to the lowest financial strata, i.e. the destitute group. In this regard Kerala tops the list at the all India level. The percentage of ineligible families assisted at the National level works out to 11%, whereas that for Kerala is only 2%.

10.6 During 1988-89, a novel scheme has been introduced as a built-in component of this programme. The scheme is to cover all IRD beneficiaries under Life Insurance which ensures that the heirs of the beneficiaries will get a maximum of Rs. 6000 as insurance. Another remarkable feature of this programme is the shift in the thrust from the agriculture sector to ISB (Industries, Service and Business) sector, with the dual objective of diversification of scheme and acceleration of rural industrialisation.

Training of Rural Youth for Self Employment (TRYSEM)

10.7 The objective of the programme is to provide technical skill to rural youth, between the age group 18 and 35, belonging to families below the poverty line, who have been identified for assistance under IRDP, with a view to enabling them to take up self employment.

10.8 Compared to 1986-87, the year 1987-88 registered improvement in the number of youth trained and number settled. Out of this SC/ST constituted 34% and women 63%. Out of 5849 persons trained during the year 2055 persons were settled in self employment and 1798 in wage employment. Out of 3853 employed, 66 per cent were women and 31 per cent belonged to SC/ST. The expenditure incurred on 'TRYSEM' Programme during the year was Rs. 126.38 lakhs. There is always a lag between the number trained and the number settled. A major problem faced under TRYSEM when the trained youth subsequently go for self employment, is the absence of infrastructural support and forward and backward linkages.

National Rural Employment Programme (NREP)

10.9 NREP is a centrally sponsored programme shared equally between central and the State Governments. Its main objective is to provide employment opportunities in rural areas by the creation of concrete durable assets benefiting the community.

10.10 The allotment including the cost of foodgrains under NREP for the year 1987-88

was Rs. 3541.97 lakhs and the expenditure reported was Rs. 2640.73 lakhs (cash+cost of foodgrains). Out of this an amount of Rs. 640.94 lakhs (24%) was utilised for the benefit of SC/ST. During the year 98.75 lakh mandays was generated, out of which 36.76 lakh mandays were SC/ST (37%). The achievements under the scheme are furnished in Table-10.1.

Rural Landless Employment Guarantee Programme (RLEGP)

10.11 The basic objectives of RLEGP are guarantee of employment to at least one member of every rural landless household upto 100 days a year and the creation of durable assets for strengthening the rural infrastructure.

Table-10.1

*Physical and Financial Achievements under Rural Development Programmes
(1986-87 and 1987-88)*

Programme (1)	Unit (2)	Achievement	
		1986-87 (3)	1987-88 (4)
I (a) I.R.D.P.			
(i) Families assisted	Nos.	143399	110684
(ii) SC/ST families assisted	"	46387	34059
(iii) Subsidy adjusted	Rs. lakhs	2010.97	1575.02
(iv) Loan disbursed	"	4189.60	3370.15
(b) Trysem			
(i) Persons trained	Nos.	4835	5849
(ii) SC/ST persons trained	"	1592	1990
(iii) Women trained	"	3089	3687
(iv) Persons settled out of trained	"	3254	3853
(v) SC/ST persons settled out of trained (self and wage employed)	"	1078	1178
(vi) Women settled out of trained (self and wage employed)	Nos.	1983	2546
(c) DWERA			
Women groups organised	Nos.	396	100*
Women groups functioning	"	550	181*
II. NREP			
(i) Total expenditure	Rs. lakhs	2782.09	2640.73
(ii) Expenditure for SC/ST	"	1170.06	640.94
(iii) Mandays generated	lakhs	105.32	98.75
(iv) Mandays generated for SC/ST	"	44.05	36.76
(v) Foodgrains utilized	M.T.	36553	42388.82
(vi) New roads constructed	Km.	1037.92	790.80
(vii) Group houses for SC/ST constructed	No.	9544	7560
(viii) Drinking water wells constructed	No.	84	91
(ix) Irrigation canals	No.	44	68
(x) Social forestry (distribution of seedlings)	in lakhs	220.64	341.69
(xi) Construction of latrines	No.	2240	1663
(xii) Building construction (Schools and other buildings)	Nos.	73	14
III. RLEGP			
(i) Total expenditure	Rs. lakhs	3263.48	2386.59
(ii) Expenditure for SC/ST	"	1308.75	738.97
(iii) Mandays generated	"	113.72	85.32
(iv) Mandays generated for SC/ST	Lakhs	52.93	33.61
(v) Foodgrains utilised	M.T.	59123	32331.17
IV. Scheme for Small and Marginal Farmers			
(i) Amount of subsidy disbursed	Rs. lakhs	636.98	310.59
(ii) Small and marginal farmers assisted	No.	344593	215363
(iii) SC/ST farmers assisted	No.	36292	15702

Source: Rural Development Commissionerate.

* Provisional.

10.12 During 1987-88, upto 31-12-1988 under RLEGP 85.32 lakh mandays of employment were generated. The major physical achievements during this period were the completion of 11,040 group houses, construction of 573.06 kms. of roads, coverage of an area of 1,248.55 ha. under social forestry. 22 ha., under minor irrigation and completion of 2,224 sanitary latrines. The comparative performance of RLEGP during 1986-87 and 1987-88 is given in Table-10.1 The total expenditure incurred under this programme during 1987-88 amounted to Rs. 2386.59 lakhs.

People's Action for Development—Kerala (PAD—K)

10.13 People's Action for Development (Kerala) an organisation under the Rural Development Department started functioning in April 1986. It aims at ensuring the involvement of various voluntary organizations in formulation of projects according to the guidelines issued by Council for Advancement of People's Action and Rural Technology (CAPART), New Delhi. The projects are submitted to CAPART for financial assistance. The society also helps the voluntary organizations in the implementation of projects sanctioned by CAPART. CAPART has emerged as an active instrument for promoting voluntary efforts in implementing Government programmes.

10.14 During 1987-88 PAD (K) processed and forwarded 49 projects to CAPART for approval and financial assistance of which sanction has so far been obtained for only 29 projects costing Rs. 73.86 lakhs. Most of them are Awareness Generation Camps and Sanitation Projects. The PAD (K) organised 2 orientation camps during 1987-88 for voluntary organizations via. Six days' camps at Mithranikethan and Malappuzha for the formulation of CAPART projects.

Development of Women and Children in Rural Areas (DWCRA)

10.15 The objective of the scheme is to provide opportunities to women members of families of the identified target groups living below poverty line to increase income and also to provide supportive services needed to enable them to take up income generating activities. The beneficiaries are organized into groups of 15 to 20 under a group leader to liaison with the banks and government offices. Members in the group are given assistance to take up economic activities by way of bank loans and subsidies. Apart from this Rs. 15,000 per group is available to build up infrastructural support, which is borne by State and Central Governments and UNICEF equally.

10.16 DWCRA is being implemented in 23 blocks in Kerala—Palghat (12 blocks), Wayanad (3 blocks) & Idukki (8 blocks). Malappuram has also been selected for implementation of the scheme during 1988-89. The total expenditure incurred under this programme for the year 1987-88 amounted to Rs. 27.395 lakhs. The women groups assisted in the various blocks was 84 in Palghat, 16 in Wayanad and 100 in Idukki districts and the total beneficiaries assisted numbered 2251 for the period 1987-88. A review of success of group economic activities under DWCRA shows that the women in the groups have been substantially benefited

by improvement in their income and living conditions of their families. Certain schemes like brick making, agarbathy making etc. in Wayanad, rice processing, weaving, matches and beedi making in Palghat and dairy units in Idukki deserve special mention.

Small and Marginal Farmers' Development Programme

10.17 The centrally sponsored scheme for Small and Marginal Farmers is for increasing agricultural production which is financed by Central and State Governments on a 50:50 basis. During 1987-88 against the projected outlay of Rs. 755 lakhs, Government of India have approved an annual outlay of Rs. 398.64 lakhs and the expenditure was Rs. 288.14 lakhs. During the period 9636 pumpsets were distributed, 5238 wells and 1735 pump houses constructed. Out of these 205 pumpsets, 284 wells and 29 pump houses were exclusively for the benefit of S.C./S.T. beneficiaries.

Kerala Rural Development and Marketing Society (KERAMS)

10.18 In order to explore markets for the products manufactured by the I.R.D. beneficiaries Rural Mahilamajams, Rural Artisans, Women's Economic Groups etc. and provide reasonable price for their products a marketing agency called Kerala Rural Development and Marketing Society (KERAMS) has been started at State-level. The main objectives of the organization are procurement of the goods produced by the aforesaid groups and marketing them at fair price by organizing exhibition and sale of the products in local fairs and festivals. The membership of the organization is limited to individuals, institutions and officials nominated by Government. A separate independent marketing outlet has started functioning at Vazhuthacaud, Trivandrum from October 1987 onwards. At present products from nearly 130 units located in different parts of the State are being collected and sold through this outlet. The average sale proceeds of the sales outlet is Rs. 48,500 per month. Under the auspices of KERAMS Trade Fairs in different parts of Kerala, have been organised. The total turnover of these fairs was Rs. 19 lakhs in 1987 and Rs. 26 lakhs in 1988.

Land to the Landless

10.19 The extent of land declared surplus as on 30-11-1988 stood at 160,099 acres. Out of this, 91,562 acres have been taken possession of by Government and 36,409 acres remain to be taken over. The extent of land available for taking over excluding the land covered by stay orders disputes etc. is 3665 acres. Of this the two districts of Palghat and Malappuram account for more than 82 per cent. Out of 91,562 acres of land taken over, 61,159 acres have been distributed, 20,205 acres are reserved for public purposes and 10,198 acres are yet to be distributed. The extent of land available for distribution excluding the area covered by stay, disputes etc. is 1688 acres. The district-wise availability varies from 3 acres in Kottayam to 851 acres in Palghat. Of the 61,159 acres distributed, 23,829 acres of land (38.96%) was given to the S.C. (53,393 beneficiaries), 5029 acres of land (8.22%) was given to the S.T. (6852 beneficiaries) and 32,301 acres of land (52.81%) was given to others (65526 beneficiaries) details are given in appendix 10.3.

10.20 The targets fixed for distribution of surplus land and the actual achievement since 1986-87 are given below:

Year	Target Fixed	Achievement
1986-87	1000 acres	941 acres
1987-88	1670 „	1228 „
1988-89	1000 „	759 „ upto 31-12-1988

10.21 Completion of land records is an essential condition for the effective implementation of land reforms. With this end in view a resurvey of the entire land in the state was initiated in 1966-67. Even though a lot of ground has been covered in this regard paucity of funds has been a major inhibiting factor in speeding up the work. Out of 32,510 sq.km. to be surveyed, an area of 21,983 sq.km. under filed work and out of this the office work for 15,199 sq.km. has been completed. The Government have decided to issue Pattayam Pass Book to all land holders after completing resurvey of the land.

10.22 The scheme for financial assistance to assignees of surplus land for the development and cultivation of land declared as surplus was introduced from 1976-77 onwards. The pattern of assistance which was Rs. 100 per acre in the beginning has undergone revisions subsequently. The present pattern of assistance is Rs. 1,000 per acre (Rs. 2,500 per ha.). The entire amount is given as grant assistance. The expenditure is shared equally between the Central and State Governments.

10.23 The total amount sanctioned and spent, No. of beneficiaries and area benefited during the period from 1975-76 to 31-12-1988 are as follows:—

Total amount sanctioned	Rs. 2,20,19,968
Total amount spent	Rs. 1,61,64,216
Total No. of beneficiaries	73,355
Area benefited	33,294 acres

Development Programmes of Panchayats

10.24 The Panchayat Department controls, guides and supervises the multi-farious activities of 999 Panchayats in the State. There are about fourteen thousand employees in these Panchayats and 10,181 elected members. Development schemes such as construction of community hall/kalyanamandapam, mini stadium, burial and burning ground, comprehensive programme for environmental amenities such as drinking water, sanitation facilities, electrification of houses, installation of TVs and radios and improvement of link roads are the important activities undertaken by

the Department for the uplift of the rural folk. The major achievements under SCP and TSP during 1987-88 are the following:—

Item	No.	Families benefited
1. Houses wired for electrification	1734	1734
2. E.S.P. type latrine constructed	353	353
3. Wells constructed	14	700
4. T.V. Sets installed	26	1040
5. Construction of burial and burning ground	6	240
6. Pipe line extended	28	304
7. Length of roads constructed/improved (12.675) Km		690
8. Worksheds constructed for Koragas	2	40

10.25 A new programme viz. 'Eleven Point Programme' has been initiated by the Government as a comprehensive scheme which aims at the all round development of the rural people. Policy measures are being formulated under the Eleven Point Programme in the economic, social, cultural and educational fields of the rural people and are being implemented through the Panchayats as a people's Participation Programme. The various schemes proposed to be implemented under the Eleven Point Programme are:—

1. Provision of drinking water
2. Supply of power and lighting of public places
3. Rural communication facilities (village roads)
4. Expansion of village housing
5. Improvement of agriculture, animal husbandry and small scale irrigation
6. Village industries and industrial training
7. Education and culture
8. Welfare of women and children
9. Health and family welfare
10. Modern market facilities
11. General living amenities.

Rural Development Board

10.26 The Kerala State Rural Development Board came into existence on 15-9-1971. At present the function of the Board is limited to the implementation of 'Remunerative Development Schemes' in

rural areas on the specific request of the panchayats, subject to availability of funds. The schemes comprise mainly construction of shopping centres, commercial complexes, market stalls, bus stands, loading houses, office buildings etc., which are mainly intended for the economic uplift and overall development of rural areas. The funds required by the Board for the implementation of Rural Development schemes are raised by open market borrowing by floating debentures with the permission of RBI and on the guarantee of State government. The Board has so far completed 450 schemes and handed over to the Panchayats and another 41 schemes are under various stages of execution.

Social Security and Welfare and Nutrition

10.27 Kerala has made notable progress in the fields of social security and welfare and nutrition. The various social security and welfare schemes benefit destitutes, aged, handicapped, widows, agricultural workers, unemployed, mentally retarded etc.

Nutrition Programmes

10.28 The supplementary feeding programmes under implementation in the State are: Integrated Child Development Services, Special Nutrition Programme in urban areas, Applied Nutrition Programme and Composite Programme for Women and Pre-School Children and Mid-day meal programme in schools. ICDS is a package programme for feeding, immunisation, nutrition, health care, referral services, nutrition education and pre-school education.

As regards its coverage, the number of feeding centres increased from 8272 in 1986-87 to 9227 in 1987-88 and the corresponding increase of beneficiaries is 7.82 lakhs and 7.75 lakhs respectively. The ANP benefited 98,000 persons and CPWP 1.28 lakh persons. The relevant details are given in Table—10.2.

Mid-day Meals

10.29 Under the Mid-day Meal Programme 32 lakh LP and UP students were benefited of which 4.60 lakhs were SC/ST students. The expenditure on this programme increased from Rs. 14.37 crores in 1986-87 to Rs. 15.55 crores in 1987-88. The anticipated expenditure during 1988-89 is about Rs. 30 crores. Details regarding various nutrition programmes implemented in the State during the last two years are given in Table—10.2.

Pension and other Social Security Schemes

10.30 There are several social security schemes implemented for the aged, widows, handicapped etc. in the State. Financial outgo from the budget for these social security and welfare programmes amount to Rs. 49 crores. The details are briefly presented in Table 10.3. Besides, the State is implementing several special schemes for the handicapped through a network of homes like home for the mentally retarded children, care homes, home for the physically handicapped, etc. Various scholarship and employment programmes are also implemented for them. The relevant data are given in Table—10.4.

Table 10.2
Feeding Centres—Beneficiaries under different Feeding Programmes.

Sl. No.	Name of Programme	No. of centres		No. of beneficiaries (in lakhs)	
		1986-87	1987-88	1986-87	1987-88
1.	Special Nutrition Programme	410	420	0.40	0.39
2.	Integrated Child Development Service	8272	9227	7.82	7.75
3.	Applied Nutrition Programme	1985	1705	0.97	0.98
4.	Composite Programme for women and pre-school children	1790	1652	1.28	1.28
5.	School Meals Programme	8796	13816	19.04	32.00

Table 10.3
Social Security and Pension Schemes

Name of the Scheme	Rate of pension (Assistance in Rs.)	Amount Spent		No. of beneficiaries	
		1986-87 (Rs. in lakhs)	1987-88	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)
1. Oldage Destitutes, Widowed divorced destitutes	Rs. 55 p.m.	1071	1319.37	55588	170110
2. Special pension scheme for the physically handicapped	Rs. 75 p.m.	330	494.39	52821	58455
3. Financial assistance to widows for the marriage of their daughters	Rs. 1000	102.79	116.47	10558	11647
4. Pension to sportsmen	Rs. 100 Rs. 150 Rs. 200	2.88	3.04	67 86 22	41 75 50

(1)	(2)	(3)	(4)	(5)	(6)
5. Agricultural workers pension scheme	Rs. 45 p.m. Rs. 60 p.m. from 1987-88	1641.63	1582.14	2,61,584	2,86,739
6. Tree climbers welfare scheme	Rs. 5000 per person	2.80	6.05	56	121
7. Cashew workers welfare scheme	2000 to Rs. 5000	18.13	17.88	14990	16,541
8. Coir workers welfare scheme	Rs. 200 to Rs. 5000	1.00	2.50	115	304
9. Kerala Handloom Workers Welfare scheme	Rs. 200 to Rs. 5000	1.00	Nil	180	Nil
10. Kerala construction workers and quarry workers	Rs. 5000 per person	0.75	Nil	15	Nil
11. Pension to circus stars	Rs. 150 p.m.	3.67	N.A.	204	N.A.
12. Unemployment assistance scheme	Rs. 50 p.m. upto 3/87 and Rs. 60 p.m. with effect from 1-4-1988	835.08	1093.65	255683	205556
13. Self Employment Scheme	Rs. 600 per person (once only)	159.71	6.25	26619	1042
14. Welfare fund for journalists	Rs. 300 to Rs. 500	4.42	5.81	154	154
15. Welfare fund for cine artists	Rs. 150 to Rs. 300 till 30-9-1986. 1-10-1986 onwards Rs. 300/person	2.92	3.10	85	98
16. No. of TV sets distributed	Rs. 5000 to 9 Panchayats.	..	0.450	..	9 Panchayats.

Table 10.4

Welfare Programmes for the Handicapped

Name of Scheme	Year of starting	No. of beneficiaries		Expenditure (in Rs.)	
		1986-87	1987-88	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)
1. Home for Mentally Deficient children	1968				
Trivandrum	1976	52	60		
Calicut					
2. Custodial Care Homes		10	12		
3. Care Home for Disable children					
Quilon	1960				
Alleppey	1982	88	92	12,63,921	18,888,000
Trichur	1960				
Tellicherry	1961				
4. Home for Physically Handicapped					
Trivandrum	1976	95	99		
Alleppey	1962				
Ernakulam	1980				
Palghat	1962				
Calicut	1980				
5. Self Employment Programme for Disabled	1972	200	..	10,000	..
6. Vocational Training Centres	1971	177	113	270,000	2,29,000
7. Pre-matric scholarships for the Physically handicapped	1980	8503	8679	339445	34,72,000
8. Scholarship for mentally retarded	1979	219	228	134130	1,50,000
9. Government of India scholarship for the disabled	1973	1508	1716	14,18,000	17,00,000

Welfare of Scheduled Castes and Scheduled Tribes and Other Backward Classes

Education

10.31 The enrolment of Scheduled Castes and Scheduled Tribes students in Government Colleges stood at 7547 in 1987-88. Of this 5933 were in pre-degree stage, 1460 in degree stage and 150 students in post graduate level. Of the total number of students 747 belonged to Scheduled Tribes. As regards school enrolment the number of scheduled caste students stood at 652,139 which accounted for 11.26 percentage of the total school enrolment. In the case of Scheduled Tribes the enrolment remained at 52,672.

10.32 The Government continued to implement the pre-matric and post-matric schemes for SC students. During 1987-88 pre-matric scholarships covered 587,168 SC students and post matric scholarships covered 65,396 students. The expenditure incurred on these amounted to Rs. 398.01 lakhs and Rs. 680.58 lakhs respectively.

10.33 Under free supply of clothes 3416 students were benefited for which Rs. 2.5 lakhs was spent. Besides providing hostel facilities for the pre-matric and post matric students the department implemented schemes such as boarding grant, book banks, production cum-training centres, pre-examination training centres, balawadies, nursery schools etc.

10.34 The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes implemented several schemes for the socio economic development of scheduled castes and scheduled tribes. During 1987-88, the Corporation assisted 2170 persons by way of subsidy and grant and incurred an expenditure of Rs.93.93 lakhs. Upto 1987-83 the Corporation extended assistance to 76,158 beneficiaries under various schemes for which an expenditure of Rs. 2694.55 lakhs was incurred. Of the beneficiaries 33,693 availed self employment assistance and 29,683 were assisted for the construction of houses. The scheme wise-achievement till 31-3-1988 is provided in Table 10.5.

The Board of Revenue implements two housing schemes—house sites to landless workers in rural areas and construction of huts/houses to rural workers. A significant part of the beneficiaries are SC/STs and the achievements are given in Table 10.6.

SC/ST representation in Government Service

10.35 There is considerable increase in the number of Scheduled Caste/Scheduled Tribes Government officers, both Gazetted and Non-gazetted, as a result of reservation, policy. Out of the 20343 gazetted officers 2124 are from Scheduled Castes/Scheduled Tribes constituting 10.4 per cent. Out of the 231,571 Non-Gazetted Officers 25,982 belong to Scheduled Caste/Scheduled Tribe constituting 11.21 per cent of the total. Under the last grade service, 13.2 per cent is from SC/ST.

Table 10.5

Major achievements of the Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes

Name of Scheme	(Rs. lakhs)			
	No. of beneficiaries		Amount Spent	
	Upto 31-3-1987	During 1987-88	Upto 31-3-1987	During 1987-83
(1)	(2)	(3)	(4)	(5)
1. Agricultural land purchase	6004	253	416.46	32.07
2. Foreign Employment	1982	117	165.86	11.67
3. Margin Money for Self Employment	26934	1409	449.48	37.99
4. Assistance to Co-operative Societies	16	..	47.92	..
5. Housing	27172	1916	1231.56	19.98
6. Loan for the purchase of machinery	5	..	0.42	—
7. Loan for starting industries in mini industrial estates	20	—	2.53	—
8. Sewing Machine	4908	..	73.51	—
9. Margin Money (old)	622	..	2.77	—
10. Hire purchase of Autorickshaw	232	..	28.43	—
11. Small Business	4028	..	160.96	..
12. Training in Autorickshaw Driving	149	..	0.77	..
13. Subsidised seed money	..	391	..	11.20
Total	72072	4086	2580.65	113.91

Table 10.6

Housing Scheme (under MNP) implemented by the Board of Revenue

Year	Allotment of sites			Expenditure (Rs. lakhs)	Construction of Houses		
	No. of sites allotted	S.C.	S.T.		No. of persons assisted	S.C.	S.T.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1980-81	6248	700	198	102.72	1503	393	11
1981-82	6605	525	100	90.22	1828	640	16
1982-83	8024	400	111	72.15	1254	987	25
1983-84	8144	420	115	76.13	894	291	11
1984-85	4841	691	129	200.61	1235	498	15
1985-86	5151	2125	68	111.36	888	318	17
1986-87	5517	2237	84	150.00	974	386	21
1987-88	1869	883	N.A.	95.86	366	139	N.A.

SC/ST Beneficiaries under Land Reforms

10.36 Under the land reform measures 182,323 hectares of land was assigned to 504,397 beneficiaries upto 31-12-1988. Of this 26,823 hectares of land was assigned to 96,842 beneficiaries belonging to Scheduled Castes/Scheduled Tribes constituting 19.20 per cent of the total beneficiaries. As regards distribution of

surplus land, 24,841 hectares of land was distributed among 126,911 beneficiaries. Of this 9,687 hectares of land was distributed to 54,097 beneficiaries belonging to Scheduled Castes and 2,037 hectares of land was distributed to 6,865 beneficiaries belonging to Scheduled Tribes. The district-wise distribution of Poramboke land and surplus land to general and SC/ST categories is provided in Appendices 10.4 and 10.5.

CHAPTER 11
INSTITUTIONAL FINANCE

The national level financial institutions like Commercial Banks, Life Insurance Corporation of India (LIC), Industrial Finance Corporation (IFC), Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India (ICICI) and National Bank of Agriculture and Rural Development (NABARD) etc. have a very important role in the development of the country.

11.2 The growth in the deposits of the Public Sector banks after their nationalisation has been phenomenal. The deposits increased from the level of Rs. 3897 crores in 1969, to Rs. 114070 crores by the end of June 1988. As will be seen from table 11.1 there have been wide variation between states in the disbursement of credit. States like Andhra Pradesh, Karnataka, Maharashtra, Orissa and Tamil Nadu had more favourable credit deposit ratio as compared

with states like Assam, Bihar, Kerala, Uttar Pradesh and West Bengal. For Kerala the credit deposit ratio has been declining over the years from 65.8 per cent in 1969 to 63.9 per cent in 1987 and again to 62.1 per cent in 1988. For Tamil Nadu the C. D. ratio in 1988 went up to 97 per cent. The average ratio for the 15 major states works out to 61.3 per cent. Considering the industrial backwardness of Kerala and the chronic unemployment situation, the resources of the banking sector could be drawn upon in a large measure for the rapid development of the state economy. For this apart from the steps to be taken by the state government, the banks also have to put in their efforts. As at the end of June 1988 the share of Kerala in total pool of credit extended by commercial banks for various development activities amounted to Rs. 2388 crores, which would work out to only about 3.9 per cent of the total bank advance. The state-wise credit-deposit ratio is given in Table 11.1;

TABLE 11.1
Deposits and Credit of The Public Sector Banks (as at June end Rs. Crores)

State	Deposits			Credit			Credit deposit Ratio %		
	1969	1987	1988	1969	1987	1988	1969	1987	1988
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Andhra Pradesh	121	5596	6402	122	4296	5040	100.8	76.8	78.7
2. Assam	93	1156	1356	13	596	708	39.4	51.6	52.2
3. Bihar	169	4895	5765	52	1709	2056	30.8	34.9	35.76
4. Gujarat	401	6581	7620	195	3612	4101	48.6	54.9	53.8
5. Haryana	49	2027	2386	23	1221	1463	46.9	60.2	61.8
6. Karnataka	188	4626	5373	143	4195	4876	76.1	90.6	90.7
7. Kerala	117	3969	3844	77	2152	2388	65.8	63.9	62.1
8. Madhya Pradesh	107	3859	4535	63	2324	2890	58.9	60.2	62.4
9. Maharashtra	968	16956	19356	911	13183	13920	100.9	77.7	71.9
10. Orissa	29	1227	1479	15	1008	1206	51.7	82.2	81.5
11. Punjab	185	5758	6751	50	2437	2672	27.0	42.3	39.6
12. Rajasthan	74	2447	2892	38	1523	1766	51.4	62.2	61.1
13. Tamil Nadu	233	5821	6709	311	5615	6511	139.5	96.5	97.0
14. Uttar Pradesh	397	10289	12254	154	4512	5331	45.7	43.9	43.5
15. West Bengal	456	9549	11203	526	4557	5207	115.4	47.7	46.5
Total major States	3402	84158	97925	2693	52940	60875	79.2	62.0	61.3
All India	3897	97663	114070	3835	59410	66856	77.9	60.8	58.6

11.3 As regards priority sector advance, Kerala's share in 1969 was the highest among the major states, with 36 per cent of the advance going to Kerala. Though the share increased in later years with as much as 54 per cent in 1986 going to Kerala, During 1986 eight other states had higher ratio than that of Kerala; The details are given in Appendix-11.1.

11.4 The total deposits including NRE deposits, advances made, and Credit-Deposit ratio for Kerala, for the bank branches located in Kerala classified into different groups of banks, since 1985 are given in Appendix 11.2. While the total deposits increased by about 48%, the NRE deposits, included in the total increased by over 75% between 1985 and 1988. The growth in advance was also more or less at the same level as that of total deposits. As there is a very positive growth in NRE deposits it is important that the state Government should devise suitable measures to harness an increasing share of the remittances for investment within the state.

11.5 The total amount of credit disbursed by the All India Financial Institutions to the 15 major states, as at the end of March 1987, was Rs. 39059 crores as against Rs. 123 crores in 1969. Thus there has been tremendous growth in the lending activities of these institutions during the last two decades. Institution-wise and state-wise details of lending activities are shown in Appendix 11.3. Summary position is given in table 11.2.

11.6 It will be seen that less developed states like Kerala received comparatively less credit from these institutions as compared to the advanced states like Maharashtra Gujarat etc. It can be noticed that states like Bihar, Kerala and Orissa received only about 3 per cent each of the advances whereas Maharashtra attracted 14.5 per cent, Andhra Pradesh 8.2%, Tamil Nadu 8.9% and Gujarat 10.1%.

11.7 The overall share of institutional finance was 3.36%, whereas the share of LIC assistance was higher by 5.16 per cent. However in respect of assistance given by other institutions, the share of

Kerala, has been much lower—IDBI (3.30 per cent) IFCI (2.78 per cent), ICICI (1.56 per cent), NABARD (3.27 per cent) and NCDC (2.62 per cent). It is needless to emphasise that concerted efforts should be made to avail of such credit on a larger scale when the state is starved of investment funds. Preparation of adequate number of viable schemes will be an essential pre-condition for this, which the state government should give special attention.

Table 11.2

Total assistance extended upto March 1987

Major States	(Rs. crores)	
	Amount	% total
1. Andhra Pradesh	3196.47	8.18
2. Assam	441.12	1.13
3. Bihar	1510.46	3.87
4. Gujarat	3962.42	10.14
5. Haryana	1561.32	4.00
6. Karnataka	2816.34	7.21
7. Kerala	1313.93	3.36
8. Madhya Pradesh	2161.56	5.53
9. Maharashtra	5661.57	14.49
10. Orissa	1243.76	3.18
11. Punjab	1903.93	4.87
12. Rajasthan	1909.11	4.89
13. Tamil Nadu	3483.89	8.92
14. Uttar Pradesh	4240.20	10.86
15. West Bengal	1898.05	4.86
Total—Major States	37304.13	95.50
All India	39059.88	100.00

APPENDIX

STATISTICAL TABLES

APPENDIX TABLE

Appendix No.	Title	Page No.
(1)	(2)	(3)
<i>Income & Employment</i>		
2.1	Per-capita Net State Domestic Product (1970-71, 1980-81, 1985-86 & 1986-87--Old Series)	.. 111
2.2	Net Domestic Product of India at Factor Cost by Industry of Origin—1986-87 & 1987-88	.. 112
2.3	Net State Domestic Product of Kerala at Factor Cost by Industry of Origin for the Period from 1980-81 to 1987-88—New Series—At Current Prices.	.. 113
2.4	State Domestic product of Kerala at Factor Cost by Industry of Origin for the period from 1980-81 to 1987-88—New Series—At Constant (1980-81) Prices.	.. 114
2.5	Sector-wise Distribution of Net Domestic Product of Districts at Factor Cost (new Series) (1980-81 to 1986-87)	.. 115—118
2.6	District per Capita Income at Constant Prices & at Current Prices (1980-81 to 1986-87)	.. 119
2.7	Savings and Capital Formation (1980-81 to 1985-86)	.. 120
2.8	Distribution of Work Seekers in Kerala by Educational Levels (1980 to 1988)	.. 120
2.9	Number of Professional and Technical Work Seekers (1980 to 1988)	.. 121
2.10	Employment in the Organised Sectors in Kerala (1970, 1975 and 1980 to 1988)	.. 121
2.11	Unemployment Assistance Scheme (1982-83 to 1988-89)	.. 122
2.12	Birth Rate, Death Rate and Natural growth Rate Kerala and India (1975 & 1980 to 1987)	.. 122
2.13	Estimated Annual Death Rates—State-wise (1983 to 1986)	.. 123
2.14	Estimated Annual Birth Rates—State-wise (1983 to 1986)	.. 124
<i>Prices, Cost of Living and Wages</i>		
3.1	Wholesale Price Index of Agricultural Commodities—Kerala 1988	.. 125
3.2	Retail Prices of Essential Commodities for the year 1988 (Month end)	.. 126—127
3.3	Consumer Price Index (Cost of Living Index) Number for Agricultural and Industrial Workers—Kerala 1988	.. 128
3.4	Index Number of Wholesale Prices by Groups and Sub Groups—All India	.. 129
3.5	Consumer Price Index Numbers for Industrial Workers—All India and Selected Centres	.. 130
3.6	Consumer Price Index Numbers for Agricultural Labourers—All India and Selected Centres	.. 131
3.7	Consumer Price Index Numbers for Urban Non-Manual Employees—All India and Selected Centres	.. 132
3.8	Wholesale Price Index of Agricultural Commodities—Kerala 1978-88	.. 132
3.9	Kerala State Civil Supplies Corporation—Turnover and Profit/Loss—1974-75 to 1987-88	.. 133
3.10	Farm Commodity Prices—Kerala 1987 & 1988	.. 134
<i>Agriculture</i>		
4.1	Station-wise Average Monthly Rainfall—1988	.. 135
4.2	District-wise Area, Production and Productivity of Principal Crops in Kerala—1987-88	.. 136—138
4.3	Production, Import, Export and Consumption of Natural Rubber (1987-88)	.. 139
4.4	Consumption of Fertilisers in Kerala (1981-82 to 1987-88)	.. 139
4.5	Average Price of Important Agricultural Inputs (1986-87 & 1987-88)	.. 140
4.6	Selected Indicators of the Performance of Agricultural Credit Societies—as on 30-6-1986 & 30-6-1987	.. 141
4.7	Selected Indicators of the Credit Operations of the Primary Agricultural Credit Societies as on 30-6-1986 & 30-6-1987	.. 141
4.8	Activities of Kerala Livestock Development and Milk Marketing Board Ltd. (1986-87 & 1987-88)	.. 142
4.9	Animal Husbandry and Dairy Development Activities (1986-87 & 1987-88)	.. 142
4.10	Performance of the Procurement and Input Wing of KCMMF for 1988	.. 143

(1)	(2)	(3)
4.11	Performance of the Dairies during 1987-88	.. 149
4.12	District-wise Distribution of Fishermen Population in Kerala (1987-88)	.. 144
4.13	Species-wise Composition of Marine Fish Landings in Kerala (1985-87)	.. 145
4.14	Average Beach Price of Selected Marine Fishes in Kerala (1986-87 & 1987-88)	.. 146
4.15	Species-wise Inland Fish Production in Kerala (1986-87 & 1987-88)	.. 146
4.16	Details of Fishermen Co-operatives in Kerala (1987-88)	.. 147
4.17	Details of Physical and Financial Achievements under the Integrated Fisheries Development Projects -- Phases I & II (as on 31-12-1988)	.. 148
4.18	Details of Fisheries Works Under Harbour Engineering Department	.. 149
4.19	Details of Selected Physical and Financial Achievements of Kerala Fishermen Welfare Fund Board Since its Inception (1986-87 & 1987-88)	.. 150
4.20	Division-wise Area of Forests in Kerala (as on 31-3-1988)	.. 151
4.21	Species-wise Area Under Forest Plantations (as on 31-3-1986, 31-3-1987 & 31-3-1988)	.. 152
4.22	Production of Major Forest Produce (1986-87 & 1987-88)	.. 153
4.23	Forest Revenue in Kerala (1986-87 & 1987-88)	.. 153
4.24	Physical and Financial Achievements Under Social Forestry (1987-88)	.. 154
4.25	Details of Physical Achievements Under Selected Programmes on Wild life Sanctuaries and National Parks (1988)	.. 155
<i>Irrigation and Power</i>		
5.1	Major and Medium Irrigation Projects in Kerala	.. 156
5.2	Major and Medium—Irrigation Projects—Achievements During 1987-88	.. 157
5.3	Physical and Financial Achievements Under Minor Irrigation Programmes	.. 158
5.4	Number of Minor Irrigation Works Proposed and Completed During 1987-88	.. 158
5.5	Physical and Financial Achievements Under Flood Control and Anti-sea Erosion Programme during 1987-88	.. 158
5.6	Growth of Kerala Power System at a Glance—as on 31-3-1987 & 31-3-1988.	.. 159
5.7	Power Projects and Power Generation Capacity (1987-88) as on 31-3-1988	.. 159
5.8	Details of ongoing Hydro-electric Power Generation Projects in Kerala	.. 160
5.9	Pattern of Consumption of Power and Revenue Collected (Internal) 1987-88	.. 160
5.10	Average Rates of Electricity Supply and Electricity Duty for Different Categories of Consumers	.. 161-162
<i>Industry</i>		
6.1	Annual Indices of Industrial Production in Kerala	.. 163
6.2	Annual Index of Industrial Production	.. 163
6.3	District-wise Distribution of Working Factories and Employment in Kerala for the year Ending 31-12-1986	.. 164-165
6.4	District-wise Distribution of Working Factories and Employment in Kerala for the Year Ending 31-12-1987 (Provisional)	.. 166-167
6.5	Details of Purchase and Sales of Materials by the Kerala State Industrial Products Trading Corporation	.. 168
6.6	Capital Invested and Employment in respect of Government Owned Companies in Kerala 1986-87 and 1987-88	.. 168
6.7	Performance of Government Owned Companies in Terms of Value of Production and Sales Turn Over 1986-87 & 1987-88	.. 169
6.8	Installed Capacity and Capacity Utilisation of the Government Owned Companies during 1986-87 & 1987-88	.. 170-171
6.9	Capital Invested and Employment in Respect of Government Majority Companies in Kerala--as on 31-3-1987 & 31-3-1988	.. 172
6.10	Performance of Government Majority Companies in Terms of Value of Production and Sales Turn Over-- 1986-87 and 1987-88	.. 173

(1)	(2)	(3)
6.11	Installed Capacity and Capacity Utilisation of the Government Majority Companies in Kerala—1986-87 & 1987-88	.. 174 175
6.12	Capital Invested and Employment in Respect of Government of India Companies Functioning in Kerala - 1986-87 and 1987-88	.. 176
6.13	Performance of Government of India Companies Functioning in Kerala in Terms of Value of Production and Sales Turn Over--1986-87 and 1987-88	.. 177
6.14	Government of India Companies functioning in—Kerala Main Features	.. 178
6.15	Production and Capacity Utilisation of Government of India Companies Functioning in Kerala -1986-87 & 1987-88	.. 179-180
6.16	District-wise Details of New Small Scale Units Registered in Kerala During 1987-88	.. 181
6.17	District-wise Details of Registered Small Scale Units as on 31-3-1988	.. 182
6.18	Working Status of Small Scale Units in Kerala as on 31-3-1988	.. 183
6.19	Entrepreneur Development Training During 1986-87 and 1987-88	.. 184
6.20	Artisan Units started in Kerala during 1987-88	.. 185
6.21	Comparative Statement of Achievements Under Self Employment Programme for 1986-87 and 1987-88	.. 186
6.22	Industrial Co-operative Societies in Kerala as on 30-6-1987	.. 187
6.23	Khadi and Village Industries—Production, Sales, Employment and Wages during 1987-88	.. 188
6.24	Coir Co-operative Societies in Kerala	.. 189
6.25	Activities of the Coir Co-operative Societies	.. 190
6.26	Export of Coir and Coir Products From India During 1986-87 and 1987-88	.. 190
6.27	Production and Productivity—Handloom Industry	.. 191-192
6.28(a)	Working Results of Handloom Apex Society (Hantex)	.. 193
6.28(b)	Working Results of the Kerala State Handloom Development Corporation, Cannanore	.. 193
6.29	Production and Productivity—Powerloom Industry	.. 194
6.30	Foreign Exchange Earning of India from Cashew Industry	.. 194
6.31	Import of Raw Cashewnuts into India	.. 195
6.32	Group-wise Working Results of State Public Sector Industrial Undertakings in Kerala	.. 196
6.33	Kerala Financial Corporation—Summary of Loan Operations as on 31-3-1988	.. 197
6.34	District-wise Sanction and Disbursements of Loans and Advances by the Kerala Financial Corporation as on 31-3-1987	.. 198
6.35	Industry-wise Classification of Loans and Advances Sanctioned and Disbursed to Small Scale Sector by the KFC	.. 199
6.36	State-wise Value of Property (Gross block) Under Central Public Sector Enterprises	.. 200
6.37	Production and Sale of Mineral Sands in Kerala	.. 200
6.38	Production and Sale of Major Minerals (Other than Mineral sands)	.. 201
<i>Transport and Communications</i>		
7.1	District-wise Public Works Department Roads Improved/developed/Taken Over During 1987-88	.. 202
7.2	Division-wise and Surface-wise Length of Roads Maintained by Public Works Department as on 1-4-1988	.. 202
7.3	Distribution of Public Works Department Roads (Division-wise) as on 1-4-1988	.. 203
7.4	Type-wise Length of Roads Under Panchayats	.. 203
7.5	Growth of Motor Vehicles in Kerala Since 1975	.. 204
7.6	Number of Motor Vehicles Having Valid Registration as on 31-3-1988	.. 205
7.7	District-wise and Category-wise Distribution of Motor Vehicles in Kerala and their Percentages During 1987-88	.. 206
7.8	Number of Vehicles Newly Registered in the State During the year 1987-88	.. 207
7.9	Kerala State Road Transport Corporation—Operational Statistics—1987-88	.. 208
7.10	Kerala State Road Transport Corporation—Operational Ratios—1987-88	.. 209-210
7.11	Air Traffic (Indian Air Lines) from Trivandrum and Cochin—1986-87 & 1987-88	.. 211
7.12	Number of Passports Issued by the Passport and Emigration Offices of Cochin and Calicut During 1987-88	.. 212
7.13	Number of Ships called at Cochin Port During 1986-87 and 1987-88 and Their Net Registered Tonnage.	.. 212
7.14	Number and Tonnage of Steamers and Sailing Vessels which Called at the Minor and Intermediate Ports of Kerala during 1987-88	.. 213
7.15	Number of Harbour Crafts Registered at the Intermediate and Minor Ports of Kerala During 1987-88.	.. 214
7.16	Dredging Conducted at the Intermediate and Minor Ports of Kerala during 1987-88.	.. 214
7.17	Name of Speed Post Centres	.. 215

(1)	(2)	(3)
7.18	Growth of Post Offices in Kerala Since 1975	216
7.19	Average Area and Population Served by Each Post Office (District-wise) in Kerala as on 1-4-1988.	216
7.20	Division-wise Statistics of Post Offices as on 1-4-1988—Kerala Circle.	217
7.21	Statistics Relating to Telephone Exchanges in Kerala for the Year 1987 and 1988.	218
7.22	Details of Income and Expenditure of K.T.D.C. and Accomodation Details in the Hotels of K.T.D.C. for the year 1987-88.	218
<i>Export Import Trade</i>		
8.1	Commodity-wise Value of Foreign Export Trade—1983-84 to 1987-88.	219
8.2	Commodity-wise Exports Through the Port of Cochin during 1985, 1986 & 1987.	219-224
8.3	Item-wise Marine Exports from Kerala and India (1986-87 & 1987-88).	225
8.4	Container Traffic Handled During the year 1985-86, 1986-87 & 1987-88.	225
<i>Social and Community Services</i>		
9.1	Educational Institutions—District-wise 1987-88.	226
9.2	List of Uneconomic Schools—District-wise.	226
9.3	Number of Students—Rural/Urban Areas—School-wise during 1987-88.	227
9.4	Standard-wise Strength of Students—1987-88.	227
9.5	Details of Teachers—Section-wise—1986-87 and 1987-88.	227
9.6	District-wise Priority List of School Buildings.	228
9.7	Details of Enrolment Under Vocational Education—Year-wise (1983-84 to 1987-88)	228
9.8	Course-wise Intake Under Vocational Education During 1987-88.	229
9.9	Number of Students Appeared and Passed in S.S.L.C. Examination From March 1980—September 1987.	229
9.10	Number of Arts and Science Colleges in Kerala —1987-88.	230
9.11	Sanctioned Strength for Different Courses in Affiliated Colleges of Kerala & Calicut Universities.	231
9.12	Number of Poly technics and Technical High Schools in Kerala—1986-87 & 1987-88.	232
9.13	Number of Engineering Colleges, Students and Teachers—1986-87 and 1987-88.	232
9.14	Students and Staff Strength in Poly technics —1986-87 & 1987-88.	233
9.15	Students and Staff Strength in Technical High Schools—1986-87 & 1987-88.	233
9.16	Intake and Out turn in Engineering Colleges, Poly technics and Technical High Schools—(1970-71, 1975-76 and 1980-81 to 1987-88).	233
9.17	Course-wise Intake and Out turn in Engineering Colleges at Degree level and at Post-Graduate level (1984-85 to 1987-88).	234
9.18	Departments/Schools and Academic Programmes of the Cochin University of Science and Technology—1987-88.	235
9.19	Total and Per capita State Government Expenditure on Education—1970-71 and 1980-81 to 1986-87.	236
9.20	Medical Institutions and Beds in Kerala—Category-wise—1987-88.	237
9.21	Statement Showing the Number of Attacks and Deaths Due to Principal diseases During 1986-87 & 1987-88.	238
9.22	Courses Conducted in the Medical Colleges with Respective Number of Intake.	238
9.23	Post-graduate Degree/Diploma/Super Speciality Courses in the Medical Colleges.	239
9.24	District-wise Distribution of Institutions, Beds and Patients Treated Under Ayurveda During 1987-88.	240
9.25	District-wise Distribution of Institutions, Beds and Patients Treated Under—Homoeopathy—1986-87 and 1987-88.	240
9.26	District-wise Details on the Family Welfare Programme—1987-88.	241

(1)	(2)	(3)
9.27	Target and Achievement of Family Welfare Programme—1987-88.	242
9.28	Total and Per capita State Government Expenditure on Health—1970-71 and 1980-81 to 1986-87.	243
9.29	Rural water Supply—State-wise—1st April, 1984.	244
9.30	State-wise Percentage of Population Covered under Potable Water Supply and Sanitation as on March end 1985.	245
9.31	Expenditure on Sewerage and Water Supply in the State-Plan and Non-Plan.	246
9.32	District-wise number and Seat Strength of Government ITIs and Private ITCs in the State (1988-89).	246
<i>Special Programmes for Weaker Sections</i>		
10.1	Disposal of Cases Relating to Tenancy and Kudikidappu.	247
10.2	Distribution of Surplus Land.	247
10.3	Beneficiaries of Surplus Land and Extent Distributed as on 30-11-1988.	248
10.4	District-wise Distribution of Beneficiaries and Area of Poramboke Land Assigned upto 31-12-1988 Under Land Reform Measures.	249
10.5	District-wise Distribution of Surplus Land upto 31-12-1988.	249
<i>Institutional Finance</i>		
11.1	Public Sector Banks Advance to Priority Sectors.	250
11.2	Banking statistics for Kerala State as on 31st December.	251
11.3	State-wise Financial Assistance Disbursed by All India Financial Institutions as at the end of March 1987 (cumulative)	252
11.4	Growth of Bank offices in India.	253

APPENDIX 2.1

Per Capita Net State Domestic Product

(1970-71, 1980-81, 1985-86, 1986-87 old series)

(Rs.)

Sl. No.	State/U.T	1970-71	1980-81	1985-86(P)	1986-87(Q)	1980-81	1985-86(P)	1986-87(Q)
		Constant Prices				Current Prices		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Delhi	1199	1455	1745	1842	3127	5464	6075
2.	Punjab	1070	1354	1656	1652	2620	4479	4719
3.	Goa, Daman & Diu	915	1487	1646	1659	2910	4958	5280
4.	Haryana	877	1060	1229	1233	2351	3748	3925
5.	Gujarat	829	904	832	860	1967	2775	3223
6.	Pondicherry	815	1291	1255	1297	3118	3810	3994
7.	Maharashtra	783	957	1045	1039	2244	3549	3793
8.	West Bengal	722	797	840	860	1643	2767	2988
9.	Rajasthan	651	535	652	646	1220	2106	2150
10.	Himachal Pradesh	651	711	808	855	1530	2636	2908
11.	Karnataka	641	687	756	799	1454	2264	2486
12.	Kerala	594	621	646	639	1385	2140	2371
13.	Andhra Pradesh	585	647	761	758	1358	2205	2333
14.	Tamil Nadu	581	584	801	828	1324	2514	2732
15.	Jammu & Kashmir	548	642	681	684	1455	2270	2344
16.	Assam	535	558	604	605	1221	2068	2204
17.	Uttar Pradesh	486	519	598	607	1272	2003	2146
18.	Madhya Pradesh	484	516	615	583	1181	1960	2020
19.	Orissa	478	477	551	535	1173	1154	1957
20.	Arunachal Pradesh	456	640	921	NA	1382	2834	NA
21.	Bihar	402	441	477	482	943	1643	1802
22.	Manipur	390	506	597	596	1382	2383	2534
	All India	633	698	798	801	1557	2586	2975

Source—Estimates of State Domestic Product 1970-71 to 1986-87
—CSO, June 1988.

National Accounts Statistics: CSO: January 1987.

APPENDIX 2.2

Net Domestic Product of India at Factor Cost by Industry of Origin

(Rs. crores)

Sl. No.	Industry of origin	At Current Prices			At Constant (1980-81) Prices	
		1980-81	1986-87@	1987-88*	1986-87@	1987-88*
	(1)	(2)	(3)	(4)¶	(5)	(6)
1.	Agriculture	40056	69459	76010	45831	45312
2.	Forestry & Logging	3059	4727	5072	2362	2304
3.	Fishing	806	2058	2536	1133	1154
4.	Mining and Quarrying	1474	6114	6169	2380	2408
	Sub-Total—Primary	45395	82358	89787	51706	51179
5.	Manufacturing:					
5.1	Registered	10050	26596	30417	18694	20297
5.2	Unregistered	8648	15756	18279	11978	12686
6.	Electricity, Gas and Water Supply	831	2584	2549	1525	1618
6.1	Electricity	..	..	..	..	..
6.2	Gas	..	..	..	..	..
6.3	Water Supply	—	—	—	—	—
7.	Construction	5771	13893	16146	6762	6954
	Sub-total—Secondary	25300	58829	67391	38959	41553
8.	Transport, Storage & Communication					
8.1	Railways	559	2427	2881	811	854
8.2	Transport by other means	2438	7348	8486	4206	4419
8.3	Storage	114	254	303	166	182
8.4	Communication	613	1488	2144	855	895
9.	Trade, hotels & restaurants	14322	31964	35553	19625	20560
10.	Banking & insurance	3394	8902	10237	6151	6525
11.	Real estate and ownership of dwellings	5920	8849	9742	7465	7755
12.	Public administration	5307	13603	16225	8092	8842
13.	Other services	6777	14793	16869	9083	9451
	Sub-total—Tertiary	39444	89628	102440	56454	59288
	Net domestic product	110139	230815	259618	147119	152017

(a) Provisional Estimates

* Quick Estimates

Source: Central Statistical Organisation, New Delhi.

Appendix 2.3

*Net State Domestic Product of Kerala at Factor Cost by Industry of Origin for the Period from 1980-81 to 1987-88—New Series—
At Current Prices*

(Rs. in lakhs)

Sl. No.	Industry of origin	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87@	1987-88*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Agriculture	129384	131163	153826	199323	214908	191989	228515	258149
2.	Forestry & Logging	12382	8048	14364	8097	8448	9028	10166	6842
3.	Fishing	7743	6292	7923	8938	8942	11792	12203	12666
4.	Mining and Quarrying	461	640	754	690	1014	992	1079	1177
	Sub Total—Primary	149970	146143	176867	217048	233312	213801	251963	273834
5.	Manufacturing	53152	61585	71171	75013	79448	92957	101510	110899
5.1	Registered	29030	33461	36610	41755	45368	51648	57458	63922
5.2	Unregistered	24122	28124	34561	33258	34080	41309	44052	46977
6.	Electricity, Gas and Water Supply	5360	3457	2587	1494	4104	2209	2273	2342
6.1	Electricity	5077	3111	2293	1102	3772	1552	1598	1645
6.2	Gas	85	95	101	109	125	467	500	536
6.3	Water Supply	198	251	193	283	207	190	175	161
7.	Construction	22223	24664	26947	33619	35298	41099	42595	44145
	Sub Total—Secondary	80735	89706	100705	110126	118850	136265	146378	157386
8.	Transport, Storage and Communication	19120	21123	25637	29967	34898	39981	46511	54156
8.1	Railways	419	835	1010	1181	1039	1858	2378	3115
8.2	Transport by other means & storage	16265	17880	21625	25267	29727	33649	39093	45278
8.3	Communication	2436	2408	3002	3519	4132	4474	5100	5763
9.	Trade, Hotels & Restaurants	53220	54131	62192	70978	78249	80147	87360	93475
10.	Banking & Insurance	11428	16206	19803	23012	27228	30679	35588	41282
11.	Real estate and ownership of dwellings	6530	6799	6968	7361	8008	8725	9423	10271
12.	Public administration	15133	16873	17489	19259	25191	30806	37275	45103
13.	Other services	29377	34801	39213	45434	50685	54483	61021	67123
	Sub-Total—Tertiary	134808	149933	171302	196011	224269	244821	277178	311410
	Net State Domestic Product	365513	385782	448874	523185	576431	594887	675519	742630
	Population ('00)	253120	257089	261698	266577	271571	276475	281800	285890
	Per capita income (Rs.)	1444	1501	1715	1963	2123	2152	2397	2598

@ Provisional Estimates, * Quick Estimates.

Source: Department of Economics and Statistics.

Appendix 2.1

State Domestic Product of Kerala at Factor cost by Industry of Origin for the period from 1980-81 to 1987-88—
New series—At constant (1980-81) Prices

(Rs. in lakhs)

Sl. No.	Industry of Origin	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87@	1987-88*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Agriculture	129384	130638	128772	118585	132032	127732	131314	128517
2.	Forestry and logging	12382	7283	8832	5288	4749	4340	4595	3082
3.	Fishing	7743	5797	6958	7691	6764	7106	6018	5448
4.	Mining and Quarrying	461	590	481	345	540	615	689	751
	Sub Total—Primary	149970	144308	145043	131909	144085	139793	142616	137798
5.	Manufacturing	53152	57178	62187	58565	56916	62944	58606	59426
5.1	Registered	29030	31028	32324	32388	30865	33752	29900	32750
5.2	Unregistered	24122	26150	29863	26177	26051	29192	28706	26676
6.	Electricity, Gas and Water supply	5360	3211	2268	1149	2783	1467	1304	1335
6.1	Electricity	5077	2885	2025	855	2566	1014	832	843
6.2	Gas	85	84	87	95	97	357	383	410
6.3	Water Supply	198	242	156	199	122	96	89	82
7.	Construction	22223	20034	17859	19319	17612	17878	17353	16844
	Sub Total—Secondary	80735	80423	82314	79033	77313	82289	77263	77605
8.	Transport, Storage and Communication	19120	20188	21828	22787	25462	27812	30094	32861
8.1	Railways	419	567	501	484	451	719	834	967
8.2	Transport by other means & storage	16265	17351	18923	19773	22056	24039	25962	28299
8.3	Communication	2436	2270	2404	2530	2955	3054	3298	3595
9.	Trade, Hotels & Restaurants	53220	51405	52922	48813	53656	55163	55715	56272
10.	Banking and Insurance	11428	13187	15781	17893	19514	20974	23071	25147
11.	Real estate and ownership of dwellings	6530	6712	6888	7062	7264	7511	7736	7968
12.	Public administration	15133	14999	14430	14120	17360	19929	22320	24998
13.	Other service	29377	30169	30778	31385	31830	32358	33033	33694
	Sub Total—Tertiary	134808	136660	142627	142060	155186	163747	171969	180940
	Net State Domestic Product	365513	361391	369984	353002	376584	385829	391848	396343
	Population ('00)	253120	257089	261698	266577	271571	276475	281800	285890
	Per Capita income (Rs.)	1444	1406	1414	1324	1387	1396	1391	1386

@ Provisional Estimates * Quick Estimates.
Source: Department of Economics and Statistics.

Appendix 2.5

Sector-wise Distribution of Net Domestic Product of Districts at Factor cost (New Series)

(Rs. in lakhs)

District	At Current Prices				At Constant (1980-81) Prices				
	Year	Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	1980-81	12166 (33.2)	8362 (22.8)	16129 (44.0)	36657 (100.0)	12166 (33.2)	8362 (22.8)	16129 (44.0)	36657 (100.0)
	1981-82	11817 (30.4)	9160 (23.6)	17880 (46.0)	38857 (100.0)	11716 (32.4)	8202 (22.7)	16205 (44.9)	36123 (100.0)
	1982-83	13290 (30.3)	10308 (23.5)	20208 (46.1)	43806 (100.0)	11052 (30.5)	8374 (23.1)	16802 (46.4)	36228 (100.0)
	1983-84	18873 (35.3)	11054 (20.7)	23521 (44.0)	53448 (100.0)	11495 (31.4)	7890 (21.6)	17181 (47.0)	36566 (100.0)
	1984-85	19860 (33.4)	11983 (20.2)	27569 (46.4)	59412 (100.0)	12295 (31.3)	7830 (19.9)	19147 (48.8)	39272 (100.0)
	1985-86	16020 (26.6)	13625 (22.6)	30682 (50.9)	60327 (100.0)	10611 (27.0)	8214 (20.9)	20436 (52.1)	39261 (100.0)
	1986-87	20141 (28.8)	14539 (20.8)	35147 (50.3)	69827 (100.0)	11507 (28.0)	7801 (19.0)	21726 (52.9)	41034 (100.0)
Quilon	1980-81	19708 (47.2)	9147 (21.9)	12859 (30.8)	41714 (100.0)	19708 (47.2)	9147 (21.9)	12859 (30.8)	41714 (100.0)
	1981-82	17621 (42.0)	10134 (24.2)	14181 (33.8)	41936 (100.0)	17291 (43.9)	9195 (23.4)	12886 (32.7)	39372 (100.0)
	1982-83	23088 (45.7)	11315 (22.4)	16111 (31.9)	50514 (100.0)	18433 (44.6)	9488 (23.0)	13379 (32.4)	4130 (100.0)
	1983-84	19891 (45.9)	8497 (19.6)	14976 (34.5)	43364 (100.0)	12648 (42.6)	6176 (20.8)	10868 (36.6)	29692 (100.0)
	1984-85	20287 (43.6)	9241 (19.9)	17024 (36.6)	46552 (100.0)	12797 (41.6)	6094 (19.9)	11757 (38.4)	30588 (100.0)
	1985-86	21414 (42.3)	10507 (20.7)	18745 (37.0)	50666 (100.0)	13694 (42.0)	6453 (19.8)	12461 (38.2)	32608 (100.0)
	1986-87	23516 (41.9)	11317 (20.2)	21274 (37.9)	56107 (100.0)	13036 (40.5)	6038 (18.8)	13121 (40.8)	32195 (100.0)
Pathanamthitta	1983-84	8465 (41.3)	4541 (22.1)	7513 (36.6)	20519 (100.0)	5104 (36.8)	3315 (23.9)	5467 (39.4)	13886 (100.0)
	1984-85	9990 (42.6)	4922 (21.0)	8517 (36.4)	23429 (100.0)	6069 (39.8)	3274 (21.5)	5918 (38.8)	15261 (100.0)
	1985-86	10740 (41.9)	5620 (21.9)	9250 (36.1)	25610 (100.0)	6864 (41.3)	3480 (21.0)	6256 (37.7)	16600 (100.0)
	1986-87	11741 (41.5)	6051 (21.4)	10469 (37.0)	28261 (100.0)	6551 (39.9)	3272 (19.9)	6582 (40.1)	16405 (100.0)
Alleppey	1980-81	10149 (34.6)	6661 (22.7)	12548 (42.7)	29358 (100.0)	10149 (34.6)	6661 (22.7)	12548 (42.7)	29358 (100.0)
	1981-82	11069 (34.3)	7373 (22.8)	13842 (42.9)	32284 (100.0)	10971 (36.3)	6616 (21.9)	12595 (41.7)	30182 (100.0)
	1982-83	12564 (34.2)	8414 (22.9)	15804 (43.0)	36782 (100.0)	10534 (34.5)	6866 (22.5)	13158 (43.1)	30558 (100.0)
	1983-84	13535 (37.7)	8182 (22.8)	14198 (39.5)	35915 (100.0)	8281 (33.8)	6005 (24.5)	10242 (41.8)	24528 (100.0)
	1984-85	15619 (38.5)	8896 (21.8)	16153 (39.8)	40608 (100.0)	9852 (36.6)	5928 (22.0)	11142 (41.4)	26922 (100.0)
	1985-86	13141 (32.1)	10118 (24.8)	17618 (43.1)	40877 (100.0)	8633 (32.4)	6323 (23.7)	11694 (43.9)	26650 (100.0)
	1986-87	16261 (34.6)	10885 (23.1)	19910 (42.9)	47056 (100.0)	9172 (33.5)	5358 (21.8)	12254 (44.7)	27384 (100.0)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Kottayam	1980-81	10777 (45.0)	3353 (14.0)	9836 (41.0)	23966 (100.0)	10777 (45.0)	3353 (14.0)	9836 (41.0)	23966 (100.0)
	1981-82	12270 (45.8)	3612 (13.5)	10916 (40.7)	26798 (100.0)	12213 (48.0)	3297 (13.0)	9916 (39.0)	25426 (100.0)
	1982-83	15250 (47.9)	4024 (12.7)	12536 (39.4)	31810 (100.0)	12744 (48.0)	3401 (12.8)	10408 (39.2)	26553 (100.0)
	1983-84	18808 (50.9)	4222 (11.3)	14328 (38.4)	37358 (100.0)	11208 (45.3)	3155 (12.8)	10359 (41.9)	24722 (100.0)
	1984-85	18075 (46.2)	4700 (12.0)	16342 (41.8)	39117 (100.0)	11110 (43.5)	3205 (12.5)	11254 (44.0)	25569 (100.0)
	1985-86	17184 (42.6)	5298 (13.0)	17904 (44.4)	40326 (100.0)	11413 (42.8)	3345 (12.6)	11877 (44.6)	26635 (100.0)
	1986-87	19841 (43.3)	5657 (12.4)	20282 (44.3)	45780 (100.0)	11388 (42.2)	3123 (11.6)	12477 (46.2)	26988 (100.0)
Idukki	1980-81	10506 (57.5)	4688 (25.7)	3065 (16.8)	18259 (100.0)	10506 (57.5)	4688 (25.7)	3065 (16.8)	18259 (100.0)
	1981-82	12376 (59.4)	5103 (24.5)	3364 (16.1)	20843 (100.0)	12155 (61.5)	4554 (23.0)	3069 (15.5)	19778 (100.0)
	1982-83	13419 (58.9)	5523 (24.3)	3822 (16.8)	22764 (100.0)	10915 (58.7)	4493 (24.2)	3183 (17.1)	18591 (100.0)
	1983-84	17089 (61.5)	6288 (22.6)	4400 (15.8)	27777 (100.0)	10240 (57.3)	4453 (24.9)	3169 (17.7)	17862 (100.0)
	1984-85	16597 (58.1)	6962 (24.4)	5020 (17.6)	28579 (100.0)	10135 (56.5)	4359 (24.3)	3455 (19.2)	17949 (100.0)
	1985-86	17260 (56.6)	7768 (25.5)	5442 (17.9)	30470 (100.0)	11307 (58.1)	4527 (23.2)	3638 (18.7)	19472 (100.0)
	1986-87	19140 (56.8)	8411 (25.0)	6122 (18.2)	33673 (100.0)	10845 (57.8)	4130 (20.2)	3795 (20.2)	18770 (100.0)
Ernakulam	1980-81	12830 (26.7)	16019 (33.3)	19194 (40.0)	480430 (100.0)	1283 (26.7)	16019 (33.3)	19194 (40.0)	48043 (100.0)
	1981-82	13608 (25.4)	18000 (33.6)	22002 (41.0)	53610 (100.0)	13450 (27.1)	16143 (32.5)	20097 (40.4)	49690 (100.0)
	1982-83	16171 (26.4)	20008 (32.7)	25006 (40.9)	61185 (100.0)	13554 (26.6)	16419 (32.2)	20993 (41.2)	50966 (100.0)
	1983-84	19183 (27.8)	22438 (32.5)	27484 (39.8)	69105 (100.0)	11822 (24.5)	16133 (33.4)	20357 (42.1)	48312 (100.0)
	1984-85	23393 (29.8)	24126 (30.8)	30933 (39.4)	78452 (100.0)	14649 (28.2)	15517 (29.9)	21805 (42.0)	51971 (100.0)
	1985-86	20276 (24.7)	27929 (34.0)	33919 (41.3)	82124 (100.0)	13352 (25.1)	16801 (31.6)	23003 (43.3)	59156 (100.0)
	1986-87	24668 (26.4)	30187 (32.3)	38494 (41.2)	93349 (100.0)	13980 (26.0)	15573 (28.9)	24287 (45.1)	53840 (100.0)
Trichur	1980-81	12263 (36.5)	7707 (22.9)	13627 (40.6)	33597 (100.0)	12263 (36.5)	7707 (22.9)	13627 (40.6)	33597 (100.0)
	1981-82	12381 (34.3)	8559 (23.7)	15110 (41.9)	35044 (100.0)	12196 (36.3)	7623 (22.7)	13751 (41.0)	33570 (100.0)
	1982-83	15149 (36.0)	9571 (22.7)	17395 (41.3)	42115 (100.0)	12271 (35.6)	7734 (22.4)	14469 (42.0)	34174 (100.0)
	1983-84	18278 (37.5)	10571 (21.7)	19882 (40.8)	48731 (100.0)	11054 (33.5)	7482 (22.7)	14429 (43.8)	32965 (100.0)
	1984-85	17180 (33.7)	11409 (22.4)	22393 (43.9)	50982 (100.0)	10533 (31.6)	7297 (21.9)	15487 (46.5)	33317 (100.0)
	1985-86	16032 (30.0)	13049 (24.5)	24280 (45.5)	53361 (100.0)	10315 (30.1)	7719 (22.5)	16263 (47.4)	34297 (100.0)
	1986-87	18712 (31.1)	13993 (23.3)	27403 (45.6)	60108 (100.0)	10514 (30.2)	7245 (20.8)	17031 (49.0)	34790 (100.0)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Palghat	1980-81	10758 (42.2)	5374 (21.1)	9368 (36.7)	25500 (100.0)	10758 (42.2)	5374 (21.1)	9368 (36.7)	25500 (100.0)
	1981-82	12238 (42.7)	5983 (20.9)	10470 (36.5)	28691 (100.0)	12159 (44.9)	5370 (19.8)	9528 (35.2)	27057 (100.0)
	1982-83	13768 (42.3)	6850 (21.0)	11968 (36.7)	32586 (100.0)	11377 (42.3)	5596 (20.8)	9902 (36.8)	26875 (100.0)
	1983-84	15588 (42.5)	7285 (19.8)	13843 (37.7)	36716 (100.0)	9284 (38.0)	5250 (21.5)	9906 (40.5)	24440 (100.0)
	1984-85	16167 (40.8)	7815 (19.7)	15615 (39.4)	39597 (100.0)	9923 (38.4)	5191 (20.1)	10707 (41.5)	25821 (100.0)
	1985-86	15244 (36.9)	9131 (21.9)	16983 (41.2)	41258 (100.0)	10063 (37.4)	5542 (20.6)	11279 (42.0)	26884 (100.0)
	1986-87	17669 (38.0)	9640 (20.7)	19194 (41.3)	46503 (100.0)	10120 (37.2)	5294 (19.4)	11807 (43.4)	27221 (100.0)
Malappuram	1980-81	11986 (50.3)	2532 (10.6)	9314 (39.1)	23832 (100.0)	11986 (50.3)	2532 (10.6)	9314 (39.1)	23832 (100.0)
	1981-82	10938 (45.6)	2777 (11.6)	10285 (42.9)	24000 (100.0)	10749 (47.7)	2402 (10.7)	9391 (41.7)	22542 (100.0)
	1982-83	12720 (46.1)	3100 (11.2)	11792 (42.7)	27612 (100.0)	10355 (46.1)	2353 (10.5)	9765 (43.5)	22473 (100.0)
	1983-84	13881 (44.7)	3495 (11.2)	13700 (44.1)	31076 (100.0)	8376 (40.9)	2305 (11.3)	9774 (47.8)	20455 (100.0)
	1984-85	16407 (46.0)	3751 (10.5)	15480 (43.4)	35638 (100.0)	10009 (43.8)	2237 (9.8)	10585 (46.4)	22831 (100.0)
	1985-86	14887 (41.5)	4303 (12.0)	16723 (46.6)	35913 (100.0)	9614 (41.7)	2320 (10.1)	11097 (48.2)	23031 (100.0)
	1986-87	17744 (43.1)	4537 (11.0)	18842 (45.8)	41123 (100.0)	9889 (41.7)	2226 (9.4)	11573 (48.9)	23688 (100.0)
Kozhikode	1980-81	16048 (40.3)	9438 (23.7)	14336 (36.0)	39822 (100.0)	16048 (40.3)	9438 (23.7)	14336 (36.0)	39822 (100.0)
	1981-82	9342 (28.0)	9323 (28.0)	14685 (44.0)	33350 (100.0)	9246 (29.8)	8363 (26.9)	13664 (43.3)	31073 (100.0)
	1982-83	14886 (35.2)	10539 (24.9)	16857 (39.9)	62282 (100.0)	12406 (35.3)	8626 (24.6)	14063 (40.1)	35095 (100.0)
	1983-84	21748 (41.4)	11515 (21.9)	19331 (36.8)	52594 (100.0)	13179 (37.3)	8284 (23.4)	13905 (39.3)	35368 (100.0)
	1984-85	21610 (38.7)	12328 (22.1)	21861 (39.2)	55799 (100.0)	13346 (36.6)	8058 (22.1)	15093 (41.4)	36497 (100.0)
	1985-86	14867 (28.2)	14217 (26.9)	23698 (44.9)	52791 (100.0)	9762 (28.5)	8021 (25.2)	15879 (46.3)	34262 (100.0)
	1986-87	20402 (32.7)	15268 (24.5)	26736 (42.8)	62406 (100.0)	11600 (32.0)	8111 (22.3)	16595 (45.7)	36306 (100.0)
Wynad	1981-82	7850 (68.1)	1746 (15.1)	1939 (16.8)	11535 (100.0)	7705 (69.5)	1598 (14.4)	1776 (16.0)	11079 (100.0)
	1982-83	6556 (60.9)	2014 (18.7)	2200 (20.4)	10770 (100.0)	4896 (58.0)	1711 (20.3)	1832 (21.7)	8439 (100.0)
	1983-84	6235 (56.7)	2130 (19.4)	2640 (24.0)	11005 (100.0)	3767 (51.8)	1609 (22.1)	1897 (26.1)	7273 (100.0)
	1984-85	9694 (64.4)	2262 (15.0)	3098 (20.6)	15054 (100.0)	5923 (61.5)	1572 (16.9)	2132 (22.1)	9627 (100.0)
	1985-86	10004 (62.3)	2641 (16.4)	3418 (21.3)	16063 (100.0)	6534 (62.0)	1720 (16.3)	2292 (21.7)	10546 (100.0)
	1986-87	11129 (62.4)	2858 (16.0)	3854 (21.6)	17841 (100.0)	6303 (61.1)	1620 (15.7)	2399 (23.2)	10322 (100.0)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Cannanore	1980-81	22779 (50.9)	7454 (16.7)	14532 (32.5)	44765 (100.0)	22779 (50.9)	7454 (16.7)	14532 (32.5)	44765 (100.0)
	1981-82	14633 (38.7)	7942 (21.0)	15259 (40.3)	37834 (100.0)	14457 (40.7)	7060 (19.9)	13982 (39.4)	35499 (100.0)
	1982-83	20006 (42.9)	9039 (19.4)	17603 (37.7)	46648 (100.0)	16506 (42.9)	7253 (18.9)	14673 (38.2)	38432 (100.0)
	1983-84	25474 (45.8)	9908 (17.8)	20195 (36.3)	55577 (100.0)	15451 (41.8)	6976 (18.9)	14506 (39.3)	36938 (100.0)
	1984-85	28433 (45.0)	10515 (16.6)	24264 (38.4)	63212 (100.0)	17504 (42.7)	6751 (16.5)	16704 (40.8)	40959 (100.0)
	1985-86	16807 (38.7)	8433 (19.4)	18155 (41.8)	43395 (100.0)	11059 (39.3)	4983 (17.7)	12088 (43.0)	28130 (100.0)
	1986-87	19433 (39.8)	8995 (18.4)	20450 (41.8)	48878 (100.0)	11083 (39.0)	4740 (16.7)	12609 (44.3)	28432 (100.0)
Kasaragod	1985-86	9916 (45.7)	3786 (17.4)	8004 (36.9)	21706 (100.0)	6572 (46.0)	2241 (15.7)	5484 (38.4)	14297 (100.0)
	1986-87	11566 (47.0)	4040 (16.4)	9001 (36.6)	24607 (100.0)	6628 (45.8)	2132 (14.7)	5713 (39.5)	14473 (100.0)
Kerala State	1980-81	149970 (41.0)	80735 (22.1)	134808 (36.9)	365513 (100.0)	149970 (41.0)	80735 (22.1)	134808 (36.9)	365513 (100.0)
	1981-82	146143 (37.9)	89706 (23.3)	149933 (38.9)	385782 (100.0)	144308 (39.9)	80423 (22.3)	136660 (37.8)	361391 (100.0)
	1982-83	176867 (39.4)	100705 (22.4)	171302 (38.2)	448874 (100.0)	145043 (39.2)	82314 (22.2)	142627 (38.5)	369904 (100.0)
	1983-84	217048 (41.5)	110126 (21.0)	196011 (37.5)	523185 (100.0)	131909 (37.4)	79033 (22.4)	142060 (40.2)	353002 (100.0)
	1984-85	233312 (40.5)	118850 (20.6)	224269 (38.9)	576431 (100.0)	144085 (38.3)	77313 (20.5)	155186 (41.2)	376584 (100.0)
	1985-86	213801 (35.9)	136265 (22.9)	244821 (41.2)	594887 (100.0)	139793 (36.2)	82289 (21.3)	163747 (42.4)	385829 (100.0)
1986-87	251963 (37.3)	146378 (21.7)	277178 (41.0)	675519 (100.0)	142616 (36.4)	77263 (19.7)	171969 (43.9)	391848 (100.0)	

Note: 1. The figures in brackets give the percentage sectoral contribution.

2. The income figures for 1986-87 are provisional estimates.

Source: Department of Economics and Statistics, Trivandrum.

APPENDIX 2.

District Per capita Income at Constant Prices 1980-81 to 1986-87

(Rupees)

District	1980-81	1981-82	1982-83	1983-84	1984-85@	1985-86@	1986-87@
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	1424 (6)	1381 (6)	1360 (8)	1345 (5)	1418 (5)	1392 (7)	1428 (7)
Quilon	2484 (5)	1382 (5)	1427 (6)	1292 (6)	1907 (9)	1370 (9)	1325 (11)
Pathanamthitta	..	..	..	1197 (11)	1291 (10)	1380 (8)	1338 (8)
Alleppey	1251 (10)	1275 (10)	1276 (10)	1255 (9)	1353 (8)	1315 (11)	1326 (10)
Kottayam	1416 (7)	1487 (4)	1538 (3)	1390 (4)	1412 (6)	1444 (5)	1436 (6)
Idukki	1894 (2)	2008 (1)	1841 (2)	1760 (2)	1736 (2)	1849 (2)	1748 (2)
Ernakulam	1903 (1)	1941 (3)	1957 (1)	1820 (1)	1921 (1)	1930 (1)	1918 (1)
Trichur	1384 (8)	1366 (8)	1382 (7)	1291 (7)	1280 (11)	1295 (12)	1289 (12)
Palghat	1256 (9)	1309 (9)	1274 (11)	1142 (12)	1184 (12)	1211 (13)	1203 (13)
Malappuram	1003 (11)	925 (12)	898 (12)	813 (13)	890 (13)	882 (14)	891 (14)
Kozhikode	1526 (3)	1372 (7)	1521 (4)	1504 (3)	1524 (4)	1405 (6)	1461 (5)
Wynad	..	1961 (2)	1465 (5)	1252 (10)	1626 (3)	1749 (3)	1681 (3)
Cannanore	1514 (4)	1254 (11)	1331 (9)	1259 (8)	1370 (7)	1341 (10)	1331 (9)
Kasargode	..	..	..	..	..	1508 (4)	1497 (4)
State	1444	1406	1414	1324	1387	1396	1391

@ Provisional.

Figures in brackets show the respective ranks.

District Per capita Income at Current Prices 1980-81 to 1986-87

(Rupees)

District	1980-81	1981-82	1982-83	1983-84	1984-85@	1985-86@	1986-87@
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	1424 (6)	1486 (5)	1644 (8)	1966 (5)	2145 (6)	2139 (7)	2490 (7)
Quilon	1484 (5)	1472 (6)	1745 (6)	1877 (8)	1989 (9)	2129 (8)	2310 (8)
Pathanamthitta	..	..	..	1769 (9)	1982 (10)	2129 (8)	2305 (9)
Alleppey	1251 (10)	1363 (9)	1536 (11)	1838 (10)	2041 (8)	2017 (10)	2279 (11)
Kottayam	1416 (7)	1567 (4)	1842 (4)	2101 (4)	2160 (5)	2187 (5)	2435 (6)
Idukki	1894 (2)	2116 (1)	2254 (2)	2737 (1)	2764 (2)	2894 (2)	3135 (2)
Ernakulam	1903 (1)	2094 (2)	2350 (1)	2603 (2)	2900 (1)	2982 (1)	3326 (1)
Trichur	1384 (8)	1466 (7)	1689 (7)	1908 (6)	1959 (11)	2014 (11)	2262 (12)
Palghat	1256 (9)	1388 (8)	1545 (10)	1715 (11)	1816 (12)	1858 (12)	2055 (13)
Malappuram	1003 (11)	985 (11)	1104 (12)	1235 (12)	1390 (13)	1376 (13)	1546 (14)
Kozhikode	1526 (3)	1472 (6)	1832 (5)	2237 (3)	2390 (4)	2164 (6)	2511 (5)
Wynad	..	2042 (3)	1870 (3)	1894 (7)	2549 (3)	2664 (3)	2906 (3)
Cannanore	1514 (4)	1337 (10)	1616 (9)	1894 (7)	2114 (7)	2068 (9)	2288 (10)
Kasargode	..	..	..	..	..	2290 (4)	2545 (4)
State	1444	1501	1715	1963	2123	2152	2397

@ Provisional.

Figures in brackets show the respective ranks.

www: Department of Economics and Statistics.

APPENDIX 2.7

Savings and Capital Formation (At current prices)

(Rs. Crores)

Year	Gross National Product at Factor cost	Net National Product at Factor Cost	Per capita Net National Product (Rs.)	Gross Domestic Savings	Gross Domestic Capital formation
(1)	(2)	(3)	(4)	(5)	(6)
1980-81	122571	110484	1627	28773	30867
1981-82	142916	128457	1851	33668	36279
1982-83	158217	141331	1993	34670	37236
1983-84	184871	165642	2288	41041	43558
1984-85	206357	184273	2494	45201	48493
1985-86	232634	206419	2734	55150	61384
1986-87	258875	229010	2974	63426	68521
1987-88	291501	257813	3284	66650	73090

Source: C S O

APPENDIX 2.8

Distribution of work seekers in Kerala by Educational levels

Period	Total work Seekers	Below S.S.L.C.	Col 3 as percentage of col. 2	S.S.L.C.	Pre-Degree	Graduages	Post-Graduates	S.S.L.C. & above	Col. 9 as Percentage of col. 2
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
31-12-1980	1579164	767141	48.45	658652	79310	67841	8220	814023	51.55
31-12-1981	1903719	979830	41.47	748898	90254	77684	7043	923889	48.53
31-12-1982	2086056	1049320	50.30	842772	102644	84161	7159	1036736	49.70
31-12-1983	2262240	1128860	49.90	920622	117161	88557	7040	1133380	50.10
31-12-1984	2458206	1194453	48.60	1050073	121369	84025	8286	1263753	51.40
31-12-1985	2574074	1208724	46.95	1116495	148464	90329	10062	1365350	53.05
31-12-1986	2704874	1209462	44.70	1251793	136193	97217	10209	1495412	55.30
31-12-1987	2991022	1270764	42.50	1434413	161155	111008	13682	1720258	57.50
31-11-1988	2899447	1184579	40.80	1438060	159829	101907	15072	1714868	59.10

Source: Directorate of Employment, Trivandrum.

APPENDIX 2.9

Number of Professional and Technical Work Seekers

Period ending	Medical Graduates	Engineering Graduates	Diploma holders in Engineering and Technology	ITI Certificate holders	Agricultural Graduates	Veterinary Graduates
(1)	(2)	(3)	(4)	(5)	(6)	(7)
31-12-1980	871	1505	6833	28873	106	17
31-12-1981	681	1217	7866	33569	103	14
31-12-1982	912	1662	7824	36043	195	15
31-12-1983	829	1757	9756	41682	218	14
31-12-1984	1035	2312	11645	68452	263	42
31-12-1985	1143	2917	11257	53237	149	25
31-12-1986	1270	3805	14812	59225	209	14
31-12-1987	1728	4916	17069	69056	177	72
30-11-1988	1246	4496	16747	64164	306	46

Source: Directorate of Employment, Trivandrum.

APPENDIX 2.10

Employment in the Organised Sectors in Kerala

(Index Base 1979—100)

Period ending	Public Sector		Private Sector		Total	
	No.	Index	No.	Index	No.	Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)
31-1-1970	293318	61.6	409562	80.5	702880	71.4
31-12-1975	418151	87.8	462712	90.9	880863	89.5
31-12-1980	496659	104.3	526459	103.4	1023118	103.9
31-12-1981	516478	108.5	528309	103.8	1044787	106.1
31-12-1982	536864	112.8	518282	101.8	1055146	107.2
31-12-1983	550670	115.7	519512	102.1	1070182	108.7
31-12-1984	565587	118.8	513503	100.9	1079090	109.6
31-12-1985	568713	119.5	507395	99.7	1076088	109.3
31-12-1986	576784	121.2	519115	102.0	1095899	111.3
31-12-1987	585391	123.0	508917	100.0	1094308	111.2
31-3-1988	586074	123.2	510984	100.4	1097058	111.4

Source: Directorate of Employment, Trivandrum

Appendix 2.11

Unemployment Assistance Scheme

Year	Unemployment Assistance Scheme		
	Applications received	No. of Beneficiaries (x)	Amount disbursed (Rs. in lakhs)
(1)	(2)	(3)	(4)
1982-83	161211	44011	80.22
1983-84	44744	98261	649.79
1984-85	102939	136479	768.52
1985-86	48715	179146	1012.08
1986-87	113809	218446	835.00
1987-88	92555	205556	1095.6
1988-89*	..	210647	1918.6
Total	480673	210647	6359.81

Note: The beneficiaries of the previous years is brought forward and unemployment allowance is paid in eligible cases.
*April 1988 to December 1988.

Source: Directorate of Employment, Trivandrum.

Appendix 2.12

Birth Rate, Death Rate and Natural Growth rate—Kerala and India

Year	Kerala			India		
	Birth/1000 population	Death/1000 population	Natural Growth Rate(%)	Birth/1000 population	Death/1000 population	Natural Growth Rate(%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1975	28.0	8.4	1.96	35.2	15.9	1.98
1980	26.8	7.0	1.98	33.7	12.6	2.11
1981	25.6	6.6	1.90	33.9	12.5	2.14
1982	26.2	6.6	1.96	33.8	11.9	2.19
1983	24.9	6.7	1.82	33.7	11.9	2.18
1984	22.7	6.4	1.63	33.9	12.6	2.13
1985	22.9	6.4	1.65	32.9	11.8	2.11
1986	22.4	6.7	1.57	32.6	11.1	2.15
1987	21.3	6.0	1.53	..	..	..

Sources: 1. Directorate of Economics & Statistics.
2. Sample Registration Bulletin, Registrar General, India.

Appendix 2.13

Estimated Annual Death Rates—State-wise

State	Death rate (No. of Deaths per thousand)											
	1983			1984			1985			1986		
	C	R	U	C	R	U	C	R	U	C	R	U
(1)	2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Andhra Pradesh	10.4	11.2	7.2	11.0	11.7	8.6	10.3	11.1	7.3	9.9	10.7	7.1
2. Assam	12.1	12.5	7.2	13.2	13.5	9.3	13.2	13.5	8.4	12.6	12.9	7.9
3. Bihar	13.0	13.5	7.4	14.5	15.1	9.7	15.0	15.6	9.0	13.8	14.4	8.9
4. Gujarat	11.6	12.8	9.0	10.8	12.0	8.2	10.8	11.8	8.7	10.5	11.3	8.6
5. Haryana	9.0	9.8	6.5	10.9	11.7	7.9	9.1	9.7	7.1	8.7	9.2	6.6
6. Himachal Pradesh	10.3	10.5	6.3	10.3	10.6	6.3	10.5	10.8	6.5	8.7	8.8	7.2
7. Jammu & Kashmir	8.8	9.4	6.7	9.5	10.1	7.3	9.8	10.5	7.2	8.6	9.0	6.8
8. Karnataka	9.3	10.6	6.0	9.6	10.7	6.6	8.8	9.8	6.1	8.7	9.4	6.8
9. Kerala	6.7	6.7	6.9	6.4	6.2	7.3	6.5	6.5	6.6	6.1	6.0	6.9
10. Madhya Pradesh	14.5	15.9	8.7	14.2	15.5	9.0	14.2	15.3	9.4	13.6	14.8	8.8
11. Maharashtra	9.2	10.4	6.8	9.4	10.7	7.1	8.4	9.4	6.7	8.4	9.7	6.1
12. Manipur	7.0	7.3	6.1	6.2	6.4	5.8	7.7	7.9	7.1	6.7	7.1	5.2
13. Meghalaya	8.3	9.2	4.4	11.8	13.2	5.5	12.7	14.3	5.6	10.1	11.2	5.3
14. Nagaland	6.3	7.3	1.4	5.3	6.3	0.5	6.3	7.0	3.0	5.9	6.6	2.7
15. Orissa	12.5	12.8	9.1	14.4	14.8	10.1	14.0	14.6	8.1	13.0	13.5	8.1
16. Punjab	9.5	10.3	7.3	9.0	10.1	5.8	8.9	9.7	6.7	8.2	8.7	6.6
17. Rajasthan	13.6	14.4	10.1	14.3	15.3	9.8	13.2	14.0	9.6	11.7	12.5	8.4
18. Sikkim	10.9	12.2	4.8	10.2	11.3	5.0	10.7	11.7	6.2	11.7	12.9	6.1
19. Tamil Nadu	11.7	13.4	8.5	10.8	11.9	8.7	9.5	10.9	6.9	9.5	10.7	7.1
20. Tripura	7.5	7.8	4.9	9.6	9.7	7.9	9.9	10.1	8.0	10.3	10.5	9.2
21. Uttar Pradesh	15.7	16.9	10.4	17.8	19.1	12.2	15.8	17.2	9.6	14.6	15.7	10.0
22. West Bengal	10.3	11.6	6.9	10.7	12.0	7.5	9.6	10.7	6.8	8.8	9.6	6.9
India	11.9	13.1	7.9	12.6	13.8	8.6	11.8	13.0	7.8	11.1	12.2	7.6

Source: Sample Registration Bulletin, Registrar General, India.

G. Combined. R—Rural U—Urban

Appendix 2.14

Estimated Annual Birth Rates—State-wise

State	Birth rate (No. of Live Births per thousands)											
	1983			1984			1985			1986		
	C	R	U	C	R	U	C	R	U	C	R	U
1	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Andhra Pradesh	30.8	31.5	28.4	31.2	31.4	30.6	29.9	29.8	30.2	31.6	32.4	28.7
2. Assam	34.7	35.6	24.5	35.3	36.0	26.1	34.3	35.0	25.0	34.7	35.5	24.8
3. Bihar	37.2	37.7	32.1	39.9	40.6	33.6	37.8	38.5	31.1	36.5	37.2	29.8
4. Gujarat	34.2	35.2	31.8	33.4	34.6	30.9	33.0	33.8	31.2	32.2	32.9	30.8
5. Haryana	35.9	37.8	29.7	37.2	38.5	32.6	35.7	36.5	32.9	35.3	36.9	29.6
6. Himachal Pradesh	32.9	33.6	22.2	30.8	31.3	23.6	30.2	30.7	23.8	30.6	31.3	20.0
7. Jammu & Kashmir	32.0	33.9	25.1	33.5	35.5	26.2	33.6	35.9	25.4	33.4	35.6	25.4
8. Karnataka	29.1	30.2	26.0	30.3	30.9	28.5	29.6	30.9	26.2	29.0	29.9	26.8
9. Kerala	24.9	25.0	24.9	22.9	22.6	24.1	23.3	23.1	24.1	22.5	22.4	23.0
10. Madhya Pradesh	38.5	40.1	32.0	36.9	38.1	32.2	39.4	41.0	33.0	37.2	39.0	30.1
11. Maharashtra	29.8	31.4	26.9	31.1	32.1	29.3	29.0	29.8	27.7	30.1	31.7	27.4
12. Manipur	28.8	30.0	24.7	29.1	29.7	27.1	28.5	29.8	24.4	25.7	27.4	20.2
13. Meghalaya	30.0	32.8	17.2	38.3	41.9	20.9	39.1	42.4	24.1	35.4	38.3	21.7
14. Nagaland	23.1	24.0	18.6	20.7	22.7	11.2	25.3	28.4	11.2	25.2	26.6	18.6
15. Orissa	34.0	34.4	30.5	32.7	33.0	29.8	30.7	30.9	28.3	32.5	33.2	26.8
16. Punjab	30.2	30.7	28.8	30.3	30.9	28.6	28.5	28.8	27.6	28.7	29.0	27.6
17. Rajasthan	40.1	41.5	34.3	39.7	40.8	35.0	39.7	41.1	33.6	36.4	37.9	29.8
18. Sikkim	34.5	36.0	27.2	31.7	34.1	20.6	33.1	35.1	24.2	32.1	33.8	24.4
19. Tamil Nadu	27.9	29.0	25.9	28.0	28.4	27.2	24.7	25.2	23.8	23.8	24.1	23.1
20. Tripura	23.7	24.5	16.6	26.6	27.4	19.7	27.3	27.6	24.5	28.5	29.1	22.4
21. Uttar Pradesh	38.4	39.6	32.8	38.7	39.8	34.3	37.6	39.0	31.6	37.5	39.1	30.7
22. West Bengal	32.0	36.0	21.7	30.4	34.3	20.5	29.4	33.0	20.5	29.7	33.5	20.1
India	33.7	35.3	28.3	33.9	35.3	29.4	32.9	34.3	28.1	32.6	34.2	27.1

Source: Sample Registration Bulletin, Registrar General, India.

C. Combined. R-Rural. U-urban

Appendix 3.1

Wholesale Price Index of Agricultural Commodities—Kerala 1988

(Base 1952-53—100)

Crops	January	February	March	April	May	June	July	August	Septem- ber	October	Novem- ber
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Rice	529.1	529.1	529.1	529.1	529.1	535.2	535.2	535.2	535.2	535.2	535.2
2. Molasses	966.3	811.9	817.3	880.4	899.0	898.0	882.3	961.5	937.0	890.0	955.9
3. Condiments & Spices	567.3	597.4	669.5	768.6	1069.09	1277.6	1301.9	772.0	614.5	582.4	543.7
4. Fruits & Vegetables	1411.7	1412.0	1197.0	1221.6	1223.0	1117.3	1135.6	1135.6	1139.0	1139.9	1128.8
5. Food Crops	698.5	698.5	674.1	696.4	746.4	766.2	772.7	688.9	663.0	655.4	647.2
6. Oil Seeds	1728.6	1826.7	1857.8	1869.7	1789.3	1710.4	1699.9	1710.2	1761.4	1826.5	1877.2
7. Plantation Crops	571.3	581.3	594.3	587.0	575.3	572.2	565.9	573.5	586.2	580.8	563.0
8. Non food crops	1379.1	1450.6	1476.2	1482.3	1422.7	1366.7	1357.4	1366.9	1406.5	1450.3	1480.3
All Crops	946.9	973.0	966.9	983.3	993.2	985.4	986.1	936.4	934.4	945.5	951.3

Source: Directorate of Economics & Statistics.

APPENDIX 3.2

Month and average Retail Prices of Essential Commodities for the year 1988

(Prices at the end of the month)
(Rs.)

Sl. No.	Name of Commodity	Unit	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.	Rice (OM)	Kg.	4.81	4.76	4.61	4.69	4.78	5.08	5.30	5.43	4.71	4.91	5.15	5.46
2.	Green gram	"	7.68	8.14	9.26	10.65	10.88	10.88	10.81	10.69	8.13	9.02	9.96	9.76
3.	Bischgram	"	7.52	7.59	7.44	7.59	7.70	8.32	8.71	8.40	8.50	9.00	12.12	11.73
4.	Redgram	"	7.20	7.02	6.58	6.60	6.62	6.68	6.82	7.02	6.83	7.01	7.11	6.89
5.	Dhall	"	13.71	12.63	12.51	12.65	12.70	12.73	12.44	12.63	12.39	12.70	12.80	12.57
6.	Sugar	"	6.56	6.60	6.57	6.67	6.78	7.48	7.59	6.88	7.04	6.85	6.90	6.44
7.	Milk (cow's)	Ltr.	4.88	4.88	4.88	4.94	4.94	4.94	4.94	4.93	4.93	4.93	4.93	4.93
8.	Tea (Kannan devan)	Kg.	40.83	40.85	41.37	35.00	35.46	36.50	36.71	36.86	36.86	36.86	36.86	36.86
			BB A1 Dust	BB A1 Dust	BB A1 Dust	BB A1 Dust								
9.	Coffee powder (FB)	"	34.15	34.70	35.23	34.66	33.34	33.36	34.18	31.23	32.26	32.21	32.22	34.03
10.	Baby food (Annul)	"	49.14	49.43	51.08	52.38	52.81	53.66	63.88	54.38	55.69	56.16	55.74	56.41
11.	Egg (Hen's)	Doz	7.44	8.12	7.66	7.13	8.27	8.94	8.43	8.28	7.66	8.16	8.77	8.10
12.	Mutton	Kg.	35.57	35.57	35.71	36.07	36.22	36.43	36.43	36.43	36.57	36.71	36.71	36.71
13.	Coconut Oil	"	33.96	34.73	33.87	34.93	32.35	32.93	33.96	33.55	35.07	36.78	37.54	35.28
14.	Groundnut oil	"	27.77	26.99	27.25	27.06	26.17	25.63	26.81	26.90	25.51	25.17	24.89	24.75
15.	Refined Oil (Postman)	"	43.02	42.10	41.91	41.68	42.64	42.70	42.45	42.30	42.26	41.73	40.90	39.67
16.	Gingelly Oil	Kg.	29.33	28.00	27.89	28.29	27.39	25.76	26.01	25.46	25.01	24.47	25.46	25.86
17.	Coconut (without husk)	100 Nos.	311.00	319.64	316.79	321.00	310.21	297.86	297.86	275.79	312.86	320.14	334.00	324.86
18.	Corriander	Kg.	18.32	16.75	14.36	14.13	12.39	11.66	11.04	10.49	9.02	9.24	9.09	9.53
19.	Chillies (dry)	"	23.61	22.04	19.61	18.79	21.43	22.39	25.39	30.36	34.07	37.64	41.60	46.11
20.	Onion	"	3.61	3.00	2.93	3.29	4.19	4.50	2.82	2.42	2.55	2.82	3.46	3.29
21.	Tamarind	"	9.64	9.64	9.57	9.86	9.89	10.50	11.00	11.68	11.46	11.89	11.71	12.39
22.	Chennai	"	2.75	2.81	2.83	3.24	3.55	3.66	3.16	3.07	2.59	2.42	2.29	2.16
23.	Tapioca (Raw)	"	1.51	1.51	1.52	1.54	1.52	1.41	1.42	1.43	1.45	1.44	1.43	1.45
24.	Potato	"	3.41	2.87	2.65	2.95	3.78	3.76	3.69	3.92	3.11	3.37	3.75	3.15

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
25. Bananas (green)	"	4.47	4.50	3.98	4.33	5.31	5.35	4.54	4.89	4.26	3.96	3.93	4.14
26. Tobacco	Kg.	15.30	15.00	15.05	15.05	18.15	15.15	15.35	15.35	15.35	15.35	15.95	17.05
27. Mundu (Mull)	Each	18.17	17.96	18.39	19.24	19.71	19.71	20.24	20.34	20.79	20.79	20.97	21.24
28. Mundu (kora)	Each	12.52	12.44	12.68	12.87	13.38	13.38	13.55	13.61	..	..	..	..
29. Washing Soda	Kg.	6.12	6.12	6.09	6.12	6.09	6.05	6.23	6.16	6.16	6.16	6.18	6.21
30. Washing Soap ($\frac{1}{2}$ bar each)	Each	4.23	4.05	3.84,	3.97	3.86	3.78	3.84	3.83	3.78	3.78	3.84	3.84
31. Toilet Soap	Each	4.48	4.52	4.49	4.56	4.58	4.50	4.25	4.18	4.18	4.14	4.15	4.11
32. Tooth Paste	50 gms	4.80	4.84	4.89	4.95	4.83	4.90	4.43	4.43	4.43	4.43	4.43	4.43
33. Razer Blade	5 Nos.	2.30	2.28	2.29	2.30	2.33	2.35	2.35	2.38	2.39	2.40	2.40	2.40
34. Anacin/Crossin	1 No.	0.36	0.36	0.36	0.36	0.36	0.35	0.36	0.36	0.42	0.42	0.42	0.41
35. Electric Bulb	Each	5.15	5.15	5.15	5.24	5.26	5.26	5.30	5.53	5.53	5.51	5.58	5.58
36. Torch battery	Each	3.51	3.49	3.54	3.54	3.61	3.65	3.73	3.76	3.79	4.10	4.18	4.20
37. Paper	24 sheets	2.98	3.01	2.98	2.98	2.89	3.02	3.05	3.06	3.02	3.20	3.20	2.94
38. Aluminium (cooking pot)	Kg.	54.07	53.60	54.58	54.58	55.40	56.26	56.83	58.51	NC	NC	NC	NC
39. Firewood—local split	Qtl.	65.33	61.71	67.18	67.18	65.75	66.27	64.50	67.18	67.18	67.55	68.45	68.45
40. Cement (Ordinary)	Bag.	81.32	80.93	80.00	80.00	82.19	83.51	82.94	81.51	80.80	79.54	78.19	77.04
41. Colocasia	Kg.	3.69	3.38	3.46	4.04	4.54	4.71	4.25	4.33	3.75	3.31	3.00	2.71
42. Onion (Big)	"	3.45	3.11	2.81	2.69	2.63	2.83	2.82	2.57	2.34	3.01	4.44	3.60
43. Brinjal	"	3.25	3.11	3.25	3.40	3.17	3.11	2.82	3.18	2.79	2.89	3.07	2.82
44. Pumpkin	"	2.39	2.21	2.16	2.31	2.38	2.48	2.37	2.50	2.21	2.14	2.18	2.12
45. Cucumber	"	2.42	2.34	2.08	2.00	2.29	2.89	2.43	3.19	2.52	2.79	2.54	1.97
46. Ladies finger	"	3.68	3.04	3.39	3.93	3.57	3.18	2.89	4.21	3.07	3.54	3.25	3.50
47. Bittergourd	"	5.04	4.71	4.66	5.04	5.35	6.23	5.18	6.39	5.21	6.21	5.96	4.75
48. Ash Gourd	"	1.96	1.96	1.89	2.00	2.27	2.50	2.27	2.50	2.13	2.08	2.03	1.81
49. Chillies (green)	"	5.86	4.79	4.75	5.25	5.11	8.61	7.43	7.18	5.07	6.21	6.71	6.04
50. Plantain (green)	"	3.46	3.46	3.36	3.39	3.43	3.46	3.39	3.55	3.27	3.02	3.07	3.39

Source: Directorate of Economics and Statistics.

Appendix—3.3

Consumer Price Index (Cost of Living Index) number for Agricultural and Industrial Workers—Kerala—1988

(Base 1970=100)

Centre	Cost of Living Index										
	January	February	March	April	May	June	July	August	Septem-ber	Octo-ber	Novem-ber
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Trivandrum	390	390	391	393	396	402	406	409	408	403	406
2. Quilon	405	405	407	409	411	416	420	423	422	418	421
3. Punalur	374	378	378	378	379	384	388	388	386	384	385
4. Alleppey	382	383	384	383	384	392	396	400	398	394	397
5. Kottayam	384	386	387	386	387	382	396	401	400	396	399
6. Mundakayam	369	370	370	371	373	378	381	381	378	377	388
7. Munnar	373	374	374	374	376	381	385	386	385	381	384
8. Ernakulam	375	376	376	376	380	387	391	393	391	386	390
9. Chalakudy	388	390	392	393	397	403	408	410	408	404	405
10. Trichur	381	381	382	384	387	394	398	402	400	395	397
11. Palghat	380	380	380	379	382	388	393	398	384	390	394
12. Malappuram	394	395	398	400	404	411	415	419	415	410	414
13. Kozhikode	391	393	395	397	401	408	412	414	411	406	408
14. Meppady	383	386	389	391	394	402	407	411	408	403	404
15. Cannanore	385	388	391	393	397	405	410	414	412	408	411
State Average	384	385	386	387	390	396	400	403	400	397	400

Source: Directorate of Economics and Statistics.

Appendix 3.4

Index Number of Wholesale Prices—By Groups and Sub Groups—All India

(Base 1970-71=100)

	Weight	1987	1988								
		December	January	February	March	April	May	June	July	August	September
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
All Commodities	1000	410.3	415.0	414.6	415.8	420.1	423.3	425.2	432.3	435.7	434.3
I. Primary Articles	416.67	390.8	390.8	390.9	391.2	395.0	399.1	398.7	407.2	412.4	405.0
I Food Articles	297.99	371.9	370.8	373.1	376.1	382.5	387.0	387.5	398.9	408.7	403.6
(i) Food grains	129.22	345.7	351.7	352.7	354.1	357.4	362.1	366.7	383.8	389.2	387.6
(a) Cereals	107.43	306.6	313.8	317.3	318.4	314.8	314.8	320.1	327.9	334.9	331.8
(b) Pulses	21.79	538.5	538.3	527.1	513.2	567.3	595.0	596.5	39.2	656.5	662.8
(ii) Fruits & Vegetables	61.32	424.9	405.3	409.8	419.4	453.2	436.9	422.7	438.9	465.5	451.8
(iii) Milk and Milk Products	61.50	349.8	344.6	343.8	345.6	346.7	352.0	349.1	355.5	360.0	360.0
(iv) Egg, fish and and Meat	18.97	509.3	523.9	531.0	528.5	536.4	533.2	535.8	552.7	553.1	524.7
(v) Condiments and Spices	10.94	298.3	299.9	306.7	309.5	308.4	326.9	345.1	348.3	363.4	366.1
(vi) Other Food Articles	16.04	352.2	353.6	367.5	369.9	351.4	399.5	421.4	415.1	394.5	401.9
2. Non Food Articles	106.21	405.0	408.3	402.1	394.4	391.1	393.5	391.5	392.7	385.1	378.3
(i) Fibres	31.73	294.2	310.8	322.2	311.4	301.3	309.8	310.9	312.5	319.9	304.6
(ii) Oils Seeds	42.01	464.2	467.5	447.6	440.8	445.4	438.5	438.2	443.9	416.5	387.2
(iii) Other Non Food Articles	32.47	436.7	427.0	421.3	415.6	408.5	417.1	409.6	408.3	408.3	398.5
3. Minerals	12.47	723.7	723.7	723.7	723.7	725.2	725.4	727.9	729.9	732.3	754.2
Petroleum, Crude and Natural Gas	6.02	1079.1	1079.1	1079.1	1079.1	1079.1	1079.1	1079.1	1079.1	1079.1	1079.1
II. Fuel, Power, Light and Lubricants	84.59	636.8	658.8	664.9	667.6	668.0	667.2	668.8	669.4	670.6	671.1
III. Manufactured products											
1. Manufactured products (item-wise)	498.74	387.5	393.8	391.0	393.7	399.0	402.4	406.0	413.0	415.4	418.4
(i) Food products	133.22	423.5	422.3	401.3	396.6	406.6	409.3	420.3	443.1	442.4	448.7
(ii) Dairy Products	3.88	384.5	384.5	384.5	408.4	414.0	414.0	414.0	436.3	451.2	451.2
(iii) Sugar, khandasari and Gur	72.41	395.8	398.7	375.5	369.3	389.0	403.3	428.0	461.2	466.2	487.8
(iv) Edible Oils	37.16	494.3	483.9	458.9	449.8	448.2	434.0	431.3	446.6	436.3	422.8
2. Beverages Tobacco and Tobacco products	27.08	361.3	361.3	361.3	365.1	369.8	372.7	373.1	373.9	375.4	376.2
3. Textiles	110.26	302.0	305.5	309.9	313.8	315.8	318.4	318.4	319.3	325.3	324.6
4. Paper and paper products	8.51	406.8	407.4	409.5	410.6	413.3	420.7	421.0	423.1	423.6	423.6
5. Leather and Leather products	3.85	527.4	536.5	536.5	583.5	599.2	599.2	599.0	599.3	599.5	599.5
6. Rubber and Rubber Products	12.07	403.2	403.8	403.8	407.0	407.6	409.7	410.3	410.3	410.3	410.3

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(13)
7. Chemical and Chemical products	55.48	352.6	356.6	361.3	359.9	361.9	365.6	365.7	367.3	368.4	371.1	
(i) Fertilisers	12.52	288.4	288.4	288.4	267.8	272.0	288.4	288.4	288.4	288.4	288.4	288.4
(ii) Pesticides	1.16	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	510.7	525.4
(iii) Drugs and Medicines	9.83	209.5	220.9	239.7	245.5	251.9	255.4	256.3	259.6	260.5	266.9	
8. Non-Metallic Mineral products	14.15	455.0	458.4	458.5	458.7	462.0	467.9	474.1	477.1	478.7	478.3	
9. Basic Metals, Alloys and Metal products	59.74	510.0	547.3	555.0	552.6	566.9	572.4	574.5	577.2	583.7	591.1	
10. Machinery and Transport Equipment	67.18	369.7	375.0	383.7	389.0	395.0	398.9	399.9	400.8	402.0	404.3	
(i) Motor Vehicles and parts	13.73	431.3	455.0	465.6	470.3	471.8	477.6	481.6	483.7	488.6	493.2	
(ii) Miscellaneous products	7.20	292.6	292.8	293.0	301.8	310.9	312.3	312.6	312.6	312.6	313.3	

Source: Centre for Monitoring Indian Economy.

APPENDIX 3.5

Consumer Price Index Number for Industrial Workers—All India & Selected Centres

(1960=100)

Centre	1987				1988					
	September	October	November	December	January	February	March	April	May	June
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
All India	745	750	755	752	753	749	753	763	771	782
Ahemadabad	744	753	757	749	740	730	730	744	754	757
Alwaye	748	769	765	757	771	768	773	773	791	810
Bangalore	804	808	818	826	844	842	838	855	860	869
Bombay	786	787	798	802	811	815	825	837	848	857
Calcutta	730	730	732	721	724	713	738	763	768	768
Coimbatore	781	782	796	801	815	822	807	818	819	827
Delhi	808	818	808	805	790	802	813	831	832	837
Gwalior	760	743	748	748	745	733	744	745	752	767
Hyderabad	750	754	763	700	780	779	782	787	787	805
Jamshedpur	695	697	703	695	694	695	700	721	729	735
Madras	751	756	769	782	797	787	780	783	788	799
Madurai	785	794	816	838	830	806	794	802	823	834
Mundakayam	738	715	722	726	739	733	734	713	738	758
Nagpur	735	747	742	749	732	735	761	797	797	798

Source: Reserve Bank of India Bulletin.

APPENDIX 3.6

Consumer Price Index Numbers for Agricultural Labourers

(1961=100)

State	1987			1988							
	October	November	December	January	February	March	April	May	June	July	August
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
All India	653	655	654	657	655	658	661	667	671	691	705
Andhra Pradesh	528	528	544	547	540	543	555	558	558	574	588
Assam	684	685	668	647	643	655	664	690	694	713	713
Bihar	700	711	692	698	705	710	711	710	708	732	744
Gujarat	601	608	606	597	590	591	603	616	619	619	633
Jammu & Kashmir	695	708	699	686	678	679	686	699	706	720	732
Karnataka	605	601	610	626	631	631	635	651	656	689	705
Kerala	694	703	712	717	718	704	711	723	724	737	755
Madhya Pradesh	657	656	651	645	642	648	657	677	695	714	722
Maharashtra	638	631	640	646	634	624	625	639	637	649	658
Orissa	729	715	720	715	715	729	738	742	758	771	795
Punjab	687	692	681	685	692	700	703	697	704	727	753
Rajasthan	654	678	678	676	677	665	673	699	712	737	746
Tamil Nadu	638	640	640	658	647	643	643	648	657	661	668
Utter Pradesh	701	717	717	727	731	729	708	712	717	754	783
West Bengal	671	658	642	631	631	644	668	659	658	682	692

Source: Reserve Bank of India Bulletin.

Appendix 3.7

Consumer Price Index Number for Urban Non Manual Employees—All India and selected Centres

(For September & October 1987 Base—1960=100
For November 1987 to August 1988 Base 1984-85 =100)

Centre	1987				1988							
	Septem-ber	October	Novem-ber	Decem-ber	January	Febru-ary	March	April	May	June	July	August
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
All India	674	680	128	128	129	128	129	131	131	133	135	136
Bombay	680	688	121	120	122	123	124	127	127	129	129	129
Delhi—New Delhi	668	669	125	125	127	126	128	129	129	131	135	136
Calcutta	576	587	126	125	126	126	127	129	131	133	136	135
Madras	755	760	135	134	136	135	135	136	137	138	139	139
Hydrabad—Secundrabad	705	711	129	130	132	132	132	133	133	134	137	138
Bangalore	708	706	124	126	129	128	129	131	132	133	136	136
Lucknow	659	664	130	130	128	128	130	130	128	130	132	134
Ahamedabad	662	666	127	127	128	127	126	129	129	130	131	131
Jaipur	775	780	129	130	130	130	133	134	134	136	138	138
Patna	720	738	130	128	130	127	129	128	128	130	131	133
Srinagar	710	714	133	130	132	131	133	133	133	134	137	137
Trivandrum	760	764	121	123	121	121	122	123	123	125	126	127
Cuttak—Bhuvaneswar	663	677	130	130	130	128	129	128	129	130	131	132
Bhopal	688	695	129	127	127	127	128	129	130	133	143	142
Chandigarh	634	642	129	130	132	132	134	135	136	137	141	142
Shillong	695	704	138	138	139	138	139	139	140	141	148	148

Source: RBI Bulletin

Appendix 3.8

Wholesale price Index of Agricultural Commodities Kerala 1978-88

Group	Weight	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
A. Food Crops	63.5	360	364	388	417	413	499	597	582	679	709	709
1. Food grains (Rice)	40.4	319	319	319	319	319	406	442	448	501	529	532
2. Molasses	2.0	289	384	629	606	412	626	629	709	689	626	797
3. Condiments & Spices	10.4	324	378	403	442	439	548	854	637	1324	1435	1205
4. Fruits and Vegetables	10.7	564	518	589	728	740	779	913	1008	758	858	691
B. Non-food crops	36.5	565	545	673	680	672	930	1477	966	1009	1324	1422
1. Oil seeds	25.5	677	648	822	819	796	1112	1863	1142	1227	1650	1787
2. Plantation crops	11.0	308	306	331	358	386	508	585	560	509	568	577
C. All Crops	100.00	345	430	492	513	507	656	918	722	800	933	964

*Average up to 11/88.

Source: Directorate of Economics & Statistics.

Appendix 3.9

Kerala State Civil Supplies Corporation—Turnover and Profit/Loss

(Rs. in crores)

Year	Turnover	Profit	Loss
1974-75	5.75	0.44	—
1975-76	12.75	0.22	—
1976-77	20.29	—	0.02
1977-78	7.12	—	1.34
1978-79	10.54	—	0.36
1979-80	23.14	—	0.12
1980-81	84.57	0.73	—
1981-82	103.58	—	1.94
1982-83	119.27	—	4.15
1983-84	161.76	—	11.99
1984-85	174.43	5.64	..
1985-86	158.65	1.21	..
1986-87	165.91	4.38	..
1987-88	219.94	10.18	..

(Figures upto 1983-84 are audited)

Source: Kerala State Civil Supplies Corporation.

Appendix—3.10

Farm Commodity Prices—Kerala

Commodity Month	Paddy/Quintal		Tapioca/Quintal		Coconut/100		Pepper/Quintal		Ginger/Quintal	
	1987	1988	1987	1988	1987	1988	1987	1988	1987	1988
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
January	241.40	264.97	101.67	106.44	260.42	275.48	5287.47	4244.93	1286.04	1891.25
February	241.42	267.39	103.99	104.00	249.16	283.16	5199.75	4078.03	1321.66	1806.81
March	241.07	267.51	105.21	101.74	247.91	286.04	5147.27	3644.87	1234.17	1796.57
April	243.73	268.28	108.39	99.41	249.99	291.06	5190.30	3452.95	1264.09	1827.08
May	248.46	270.12	108.85	102.01	254.11	283.94	5296.27	3385.24	1289.49	1685.25
June	255.86	280.41	103.61	94.37	261.76	275.05	5345.89	3420.13	1292.06	1596.56
July	258.64	289.06	103.28	92.60	269.96	273.45	5435.66	3318.08	1211.15	1476.88
August	259.10	292.81	104.14	92.71	270.39	272.63	5473.44	3027.24	1590.90	1357.81
September	249.73	274.71	107.60	93.04	268.34	280.92	5427.66	3234.62	1631.39	1192.19
October	243.03	271.97	106.52	92.85	266.02	289.53	5428.03	3721.03	1599.17	1270.00
November	250.96	283.28	106.46	92.60	270.91	300.60	5174.90	3583.14	1472.92	1244.12
December	259.51	..	106.70	..	273.01	..	4738.14	..	1607.42	..
Average	249.41	275.50	105.54	97.43	261.83	282.90	5262.07	3555.48	1395.04	1558.59

Appendix 3.10—Contd.
Farm Commodity Prices—Kerala

Commodities	Cashew/Quintal		Sugarcane/Tonne		Arecanut/*000 Nos.		Banana/100 Nos.	
	1987	1988	1987	1988	1987	1988	1987	1988
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
January	1295.42	..	255.00	311.13	8.85	7.77	65.05	60.74
February	1385.97	1060.12	255.00	296.88	9.41	8.26	65.20	62.43
March	1329.99	1106.35	210.00	275.00	9.82	10.13	64.34	59.94
April	1399.49	1146.43	210.00	272.50	11.33	12.21	63.89	61.41
May	1380.79	1097.62	..	277.50	12.88	15.18	66.47	68.00
June	1258.78	1082.50	..	340.00	13.65	19.90	71.73	69.77
July	1500.00	1070.00	..	330.00	11.75	20.43	75.16	66.17
August	..	..	..	330.00	9.83	14.46	79.42	63.48
September	..	..	275.00	310.00	8.32	11.57	75.92	59.78
October	..	..	245.84	290.00	7.50	9.91	70.37	57.54
November	..	..	..	293.33	7.19	8.92	66.18	54.16
December	..	..	292.75	..	7.24	..	62.25	..
Average	1364.35	1093.84	249.08	302.39	9.81	12.61	68.83	62.13

Appendix 4.1

Station-wise Monthly Rainfall (In m.m.) 1988

Station	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	00	1.1	30.1	163.0	33.5	535.7	228.4	94.6	369.7	16.9	183.4	26.6
Quilon	00	68.4	85.4	116.0	180.8	476.8	393.8	208.1	465.3	77.0	128.8	41.0
Alleppey	00	34.7	12.3	138.4	175.1	561.0	716.5	481.6	714.0	106.0	74.3	64.6
Kottayam	00	47.4	49.9	194.2	161.6	478.7	484.5	498.0	624.6	69.6	137.4	55.7
Peermade	00	00	48.0	396.0	156.3	722.3	791.3	802.6	701.9	93.0	98.0	4.0
Cochin	00	5.2	51.1	19.7	121.1	657.7	592.3	461.2	683.9	101.2	50.5	65.6
Trichur	00	00	22.2	103.4	273.3	596.3	486.5	450.6	517.9	99.3	8.0	19.0
Palghat	00	6.8	26.0	196.4	65.8	211.4	388.0	345.6	264.9	101.2	50.2	65.6
Nilambur	00	00	36.0	43.2	50.0	552.6	626.5	505.3	183.1	70.6	47.1	61.0
Kozhikode	00	00	19.0	186.6	325.4	837.2	745.3	483.1	437.7	72.1	78.3	89.1
Wayanad	00	26.4	6.4	71.4	162.0	243.8	722.7	396.5	324.5	55.2	9.4	22.0
(Manantody) Cannanore	00	00	Trace	78.6	145.1	1202.0	1042.6	529.5	331.0	48.9	40.8	00.6

APPENDIX 4.2
District-wise Area, Production and Productivity of Principal Crops in Kerala 1987-88

Sl. No.	Crops	Trivandrum			Quilon			Pathanamthitta			Alleppey			Kottayam		
		Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
1.	Pulses	2747	631	230	1948	1001	742	310	240	774	635	549	864	2175	1943	893
2.	Sugarcane	17	78	4588	211	1217	5768	1380	8116	5881	1289	7210	5593	244	1450	5943
3.	Pepper *															
4.	Ginger	208	844	4058	929	2633	2834	511	1393	2608	210	673	3205	2585	6467	2502
5.	Cardamom *															
6.	Coconut (In * Million nuts)															
7.	Cashewnut	5827	1300	223	10827	6282	580	3503	1851	528	11088	1958	176	1205	292	242
8.	Banana & other Plantains	5887	29438	5001	3872	27801	7180	2824	25915	9177	2277	14880	6535	5105	41359	8102
9.	Tapioca	49414	847450	17150	38124	609039	15975	13193	311025	23575	7503	119116	15876	18985	384446	20250
10.	Groundnut	7	4	571	..	..	..	..	..	..	1	1	1000	..	..	..
11.	Sesarium	18	6	333	1747	523	299	221	77	348	4072	697	171	61	12	197

* Not available

Sl. No.	Crops	Idukki			Ernakulam			Trichur			Palghat			Malappuram		
		Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)
(1)	(2)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
1.	Pulses	110	862	777	1417	1015	716	2402	1715	714	8109	5969	736	1155	855	740
2.	Sugarcane	1596	8349	5231	42	238	5667	6	35	5833	2942	15113	5137	8	42	5250
3.	Pepper*															
4.	Ginger	1823	5296	2905	2431	7780	3200	131	213	1626	445	1016	2283	341	691	2026
5.	Cardamom*															
6.	Coconut*															
7.	Cashewnut	2270	792	349	2273	1052	463	6702	3018	450	13880	3474	250	14989	5437	363
8.	Banana and Other Plantains	2595	26507	10215	15452	36168	2341	5429	31522	5806	4229	28239	6677	5607	38946	6946
9.	Tapioca	7760	198464	25575	3739	72994	19522	5239	72561	13850	6797	126418	18599	15324	209556	13675
10.	Groundnut	..	..	..	..	..	..	..	..	..	9387	4650	495	20	11	550
...	...	197	55	279	2017	423	210	1218	330	271	1084	182	168	1988	679	350

* Not available

APPENDIX 4.2—Contd.

Sl. No.	Crops	Kozhikode			Wayanad			Cannanore			Kasaragode			Kerala		
		Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)
(1)		(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
1.	Pulses	1147	873	761	325	248	763	3396	2649	780	1146	894	780	27422	19444	709
2.	Sugarcane	4	21	5250	15	78	5200	25	130	5200	19	99	5210	7798	42176	5408
3.	Pepper*	1540	2151	1396	2929	10020	3421	770	2239	2908	557	1620	2908	15410	42976	2789
4.	Ginger													64627	2050	32
5.	Cardamom*															
6.	Coconut (In Million nuts)	4346	1095	252	799	190	238	35701	27371	767	30568	17578	575	144478	71690	496
8.	Banana & Other Plantains	2957	16923	5723	1896	15195	8014	3524	23408	6642	1334	5533	4148	52988	361834	6228
9.	Tapioca	4677	61851	13224	1755	46469	26478	4612	84404	18301	2136	37439	17528	179258	3181282	17747
10.	Groundnut	..	..	..	..	..	..	5	3	600	36	20	556	9456	4689	496
11.	Sesamum	65	24	369	117	52	444	171	83	485	124	16	129	13050	3159	242

* Not available

Appendix 4.3

Production, Import and Consumption of Natural Rubber

(Tonnes)

Month	Production	Import	Consumption (Indigenous Imported)
(1)	(2)	(3)	(4)
April 1987	11020	6091	21920
May "	21450	8340	22475
June "	12660	6921	22360
July "	14585	9738	23935
August "	15190	9553	22880
September "	24480	263	21965
October "	27535	456	21735
November "	27387	2378	25870
December "	29240	681	27815
January 1988	26120	2220	25885
February "	12050	3285	25190
March "	13480	3759	25450
Total:	235197	53685	287480

Appendix 4.4

Consumption of Fertilizers in Kerala

(In tonnes)

Year	Nutrients				
	Nitrogen	Phosphorus	Potash	Total	Percentage change
(1)	(2)	(3)	(4)	(5)	(6)
1981-82	40612	23215	30934	94761	
1982-83	45233	26555	38065	109853	+15.9
1983-84	62480	31178	35819	129477	+17.9
1984-85	57657	32642	37346	127645	- 2.6
1985-86	59263	34412	47655	141330	+10.7
1986-87	60783	35857	54723	151363	+ 6.8
1987-88	70730	49350	62410	182490	+20.6

Appendix 4.5

Average Prices of Important Agricultural Inputs

(1)	Unit (2)	1986-87 (3)	1987-88 (4)
I. Fertilisers			
(a) Nitrogen—Urea/Amonium Sulphate:	Rs./Kg.	2.35	2.35
(b) Phosporus-Superphosphate	"	1.65 0.95	1.65 0.95
(c) Potash-Muriate of potash	"	1.30	1.30
2. Seeds and other planting materials			
(a) Paddy seeds	Rs./Qtl.	150.00	150.00
(b) Pulses seeds	"	..	..
(c) Green Manure seeds	"		
(i) Sunhemp	"	393.00	435.00
(ii) Diancha	"		
(iii) Kolinji	"	235.00	295.00
(d) Coconut seedlings			
(i) W. Coast Tall	Rs./s	6.75	6.75
(ii) T x D	Rs./s	10.50	10.50
(iii) D x T	"	10.50	10.50
(iv) Laccadive ordinary	"	..	..
(e) Arecanut seedling	"		
(f) Rooted Pepper cuttings	Rs./cutting		
(i) Panniyoor I	"	0.50	0.50
(ii) Other varieties	"	0.50	0.50
(g) Cashew	Rs./layer	2.00	2.00
(h) Cashew seedlings	Rs./Seedling	1.50	1.50
(i) Cocoa seedlings	"		
(j) Nutmeg seedlings	"		
(i) One year old	"	3.00	3.00
(ii) Two year old	"	5.00	5.00

APPENDIX-4.6

Selected Indicators of the Performance of Agricultural Credit Societies

Sl. No.	Indicators	As on 30-6-1986	As on 30-6-1987
1.	Average Membership per Society (No.)	3982	4343
2.	Average Share Capital per Society (Rs. lakhs)	3.24	3.58
3.	Average Deposit per Society (Rs. lakhs)	25.91	28.96
4.	Average Deposit per Member (Rs.)	651	667
5.	Average Working Capital per Society (Rs. lakhs)	44.01	50.76
6.	Average Loan per Member (Rs.)	844	877
7.	Average Loan Advanced per Advancing Society (Rs. lakhs)	35.37	40.46
8.	Average Loan Advanced per Borrowing Member (Rs.)	2065	2331
9.	Percentage of Borrowing Members to Total Members (Borrowed during the year)	40.86	37.64
10.	Percentage of Overdue to outstanding	20.38	17.82
11.	Percentage of overdue to demand	19.58	17.90

APPENDIX 4.7

Selected Indicators of the Credit Operations of the Primary Agricultural Credit Societies

Sl.No.	Indicators	As on 30-6-1986	As on 30-6-1987
1.	No. of Societies	1574	1570
2.	No. of Members (Lakhs)	63	68
3.	Paid up Share Capital (Rs. lakhs)	5095	5618
4.	Reserve (Rs. lakhs)	3093	3574
5.	Deposits (, ,)	40785	45474
6.	Working Capital (, .)	69266	79692
7.	Loans issued (Rs. lakhs)		
	Short-term loan	44767	49626
	Medium-term	7273	9120
	Long-term	840	1060
8.	S.T. loans advanced for agricultural purpose alone (Rs. lakhs)	20760	23891
9.	Medium-term for agricultural purpose alone (Rs. lakhs)	4121	4240
10.	Loans outstanding at the end of the year (Rs. lakhs)	51401	61190
11.	Loans overdue (Rs. lakhs)	10478	10907
12.	No. of societies on profit	884	807
13.	No. of societies on Loss	660	728
14.	No. of societies without Profit or Loss	30	35
15.	No. of dormant societies	23	31
16.	No. of societies having paid secretaries	1567	1534
17.	Net Profit for the year (Rs. lakhs)	742	800
18.	Loss sustained (Rs. lakhs)	1129	1723

APPENDIX 4.8

Activities of Kerala Livestock Development and Milk Marketing Board Limited, Trivandrum

Sl. No.	Item (1)	Unit (2)	Performance	
			1986-87 (3)	1987-88 (4)
I. Production and supply of inputs for cattle breeding programmes				
(a)	No. of Breeding Bulls maintained for semen collection	No.	147	130
(b)	Production of Frozen Semen	Lakhs	17.36	12.67
(c)	Production of LN2	doses lakhs litres	4.74	5.09
(d)	No. of Officers trained in the Training Centres	Nos	151	143
(e)	No. of A.I. Centres established	"	1376	1376
(f)	Distribution of Frozen Semen	Lakhs	13.62	13.79
II. Production of Buffalo frozen semen				
(a)	No. of Buffalo bulls maintained (including young bulls)	Nos.	38	54
(b)	Production of Frozen Buffalo semen	Lakhs doses	2.68	2.70
III. Herd Book Organisation				
(a)	No. of animals to be identified through ear tags	Nos.	5745	6356
(b)	No. of growth measurement for recording growth	"	20823	24276
(c)	No. of herd book cards introduced	"	14072	20331
IV. Fodder seed farm & certified seed Production				
(a)	Production of Fodder Seeds	M.T.	13	14.64
V. Organisational set up for fodder development				
(a)	Distribution of Fodder seeds to Dairy Farmers	M.T.	25.6	17.16
VI. Centrally Sponsored Progeny Testing Schemes				
(a)	No. of young bulls to be introduced for progeny testing	No.	45	56
(b)	No. of Test A.I.	Nos.	66526	63751
(c)	No. of completed Lactations	Nos.	1903	2166
(d)	Selection of Bull calves	Nos.	54	45

APPENDIX 4.9

Animal Husbandry and Dairy Development Activities

Sl. No.	Item (1)	Unit (2)	Performance	
			1986-87 (3)	1987-88 (4)
I. Department of Animal Husbandry				
1.	Artificial Insemination Carried out	lakh	10.72	11.71
2.	Estimated Milk Production	lakh tonnes	13.34	14.26 (Provisional)
3.	Meat production	Tonnes	26829	28197
4.	Egg Production	Million	1397	1440 (Provisional)
II. Veterinary Institutions & Services				
	District Veterinary Centres	No.	5	6
(a)	Veterinary Polyclinics	"	51	51
(b)	Veterinary Hospital	"	542	541
(c)	Veterinary Dispensaries	"		
(d)	Veterinary Sub Centres	"	106	106
(e)	Other Institutions	"	812	815
(f)	Animals treated	"	3693633	3725201
(g)	Vaccination & Inoculation conducted	"		
(i)	On Live Stock	"	1738098	1648591
(ii)	On Poultry	"	2761457	2377119

APPENDIX 4.10

Performance of the procurement & input wing of KCMMF for 1988

Regional Unions		No. of APCOS registered	No. of APCOS Functional
(1)		(2)	(3)
Trivandrum Quilon Alleppey	Trivandrum Regional Co-operative Milk Producers' Union	482	461
Kottayam Trichur Ernakulam	Ernakulam Regional Co-operative Milk Producer's Union	359	325
Kasaragode	Proposed Malabar Regional Co-operative Milk Producers' Union		
Calicut	"	147	27
Cannanore	"		
Wayanad	"		

APPENDIX 4.11

Performance of the Dairies during 1987-88

Name of Dairy	Procuring capacity/day (lts.)	Proc. 1987	Proc. 1988	Procurement		Total Sales		Sales average/ day	
				Av./day 1987	Av./day 1988	1987	1988	1987	1988
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	40000 lpd	10400763	14658271	28495	40160	19767894	22507648	54159	61665
Quilon	60000 lpd	9942281	14170698	27239	38824	5284087	6741894	14477	18471
Alleppey	60000 lpd	2031829	5091735	5567	13950	4848679	5160722	13284	14139
Kottayam	5000 lpd	3642094	3015389	9978	8261	3715031	4302933	10178	11789
		(184 days)				(122 days)			
Trichur	60000 lpd	3700675	9894951	20112	27109	665104	4581068	5452	12551
Ernakulam	50000 lpd	18404515	22004219	50423	60286	18063493	19267845	49489	52789
Palghat	6000 lpd	3829461	5123675	10492	14037	4764654	4988918	13054	13688
Cannanore	10000 lpd	1209057	3406597	3312	9333	7313594	7847439	20037	21509

APPENDIX—4.12

District-wise Distribution of Fishermen Population in Kerala (1987-88) Estimated

District	Marine				Inland				Total
	Male	Female	Children	Total	Male	Female	Children	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Trivandrum	44843	43374	62063	150280	329	335	425	1089	151369
2. Quilon	26804	24702	32851	84357	9767	8971	12141	30879	115236
3. Alleppey	31071	303886	99075	100532	18511	17550	19999	56060	156592
4. Pathanamthitta	..	..	..	..	250	237	270	757	757
5. Kottayam	..	..	..	..	7434	7100	7886	22420	22420
6. Idukki	..	..	..	..	..	..	..	..	..
7. Ernakulam	21007	20547	23729	65283	19965	19159	19164	58288	123571
8. Trichur	19208	19575	23960	62743	5939	5727	6217	17883	80626
9. Palghat	..	..	..	..	112	130	238	480	480
10. Malappuram	21061	21590	25302	67953	1221	1208	1406	3835	71788
11. Wayanad	..	..	..	..	270	258	332	860	860
12. Calicut	27812	26983	34316	89111	3385	3229	4196	10810	99921
13. Cannanore	15091	14690	17553	47334	307	269	223	799	48133
14. Kasargod	12450	12110	14473	39033	254	222	184	660	39693
State	219347	213957	273322	706626	67744	64395	72681	204820	911446

Source: Directorate of Fisheries.

APPENDIX 4.13

Species-wise Composition of Marine Fish Landings in Kerala : (1985-87)

(Qty. in tonnes)

Species (1)	Kerala		
	1985 (2)	1986 (3)	1987 (4)
1. Elasmobranches	7966	6057	6538
2. Cat Fish	1815	5084	7494
3. Chirocentrus	5045	2237	916
4. (a) Oil Sardine	106321	145259	121194
(b) Other Sardine	31645	24245	12948
5. Anchovella	19349	9500	10481
6. Thrissocles and other clupeoids	4121	8049	4082
7. Perches	500	6577	7677
8. Redmullet	11621	6329	2830
9. Sciaenids	3990	4601	5695
10. Ribbon Fish	3251	3536	4767
11. Carangids	1870	1852	2647
12. Leiognathus	1536	3642	4255
13. Lactarius	931	1194	890
14. Pomfrets	988	1892	1906
15. Mackerel	24157	17294	18329
16. Seer fish	2808	9005	3368
17. Tunnies	6206	7042	5836
18. Soles	3366	5080	4905
19. (a) Prawn	35882	29817	23030
(b) Lobsters and crustaceans	852	1606	1912
20. Cephalopodes	3102	3997	2985
21. Miscellaneous	55361	37981	23888
Total	332503	335856	278573

Source: Directorate of Fisheries

APPENDIX 4.14

Average Beach price of selected Marine Fishes in Kerala

Species	Average Beach price (Rs. kg)	
	1986-87	1987-88
(1)	(2)	(3)
1. Elasmobranchs	3.60	4.40 (22)
2. Catfish	3.35	3.70 (22)
3. Chirocentus	3.40	4.20 (24)
4. (a) Oil Sardine	1.85	2.25 (22)
(b) Other Sardines	2.10	2.45 (17)
5. Sciaenids	3.00	3.10 (3)
6. Carangids	4.95	5.00 (1)
7. Leiognathus	2.15	2.60 (7)
8. Lactarius	4.50	5.20 (16)
9. Pomfrets	8.00	9.60 (20)
10. Mackerel	4.00	5.20 (30)
11. Seer fish	9.30	12.00 (29)
12. Tunnies	5.60	6.20 ((11)
13. Soles	1.95	2.40 (23)
14. Cephalopods	5.80	5.80 —
15. Prawns	20.00	21.40 (7)
16. Miscellaneous	2.45	2.85 (16)

Source: Directorate of Fisheries

APPENDIX 4.15

Species-wise Inland Fish Production in Kerala (1986-87 & 1987-88)

(Quantity: Tonnes)

Species	1986-87		1987-88		Variation	
	Actual	%	Actual	%	Actual	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Prawns	5896	20.91	5822	21.62	74	5.86
2. Etroplus	2825	10.02	2786	10.34	39	3.09
3. Murrels	2847	10.10	2742	10.18	105	8.32
4. Tilapia	4936	17.51	4732	17.57	204	16.16
5. Cat Fish	2943	10.44	2864	10.63	79	6.26
6. Jew Fish	1730	6.13	1698	6.31	32	2.54
7. Others	7017	24.89	6288	23.35	729	57.77
Total:	28194	100.00	26932	100.00	1262	100.00

Source: Directorate of Fisheries

APPENDIX 4.16

Details of Fishermen Co-operatives in Kerala (1987-88)

<i>Particulars</i>	<i>Total No. of Societies</i>	<i>No. of Membership</i>	<i>Paid up Loan Capital</i>
(1)	(2)	(3)	(4)
1. Regional Fish Marketing Societies	3		
2. Credit Societies	39		
3. Matsya Ulpadaka Co-operative Societies	8	N.A.	
4. Fishermen Village Societies			
(a) Marine	81	2573*	..
(b) Inland	..	..	..
5. District Societies	5	25	2500
6. Matsyafed	1	5	5000
7. Harijan Girijan Fishermen Co-operative Societies	38	950	9500

*Membership at the time of registration

Source: Directorate of Fisheries

Appendix 4.17

Details of physical and financial achievements under the Integrated Fisheries Development Projects—Phases I and II

(Rs. lakhs)

Particulars	Phase I				Phase II	
	Achievement during 1988 (As on 31-12-1988)		Total achievement upto 1988		Total achievement upto 1988 (as on 31-12-1988)	
	Physical	Financial	Physical	Financial	Physical	Financial
(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Inputs						
1. Crafts (Nos.)	40	11.13	240	51.52	96	36.18
2. Out Board Motors (Nos.)	49	6.48	362	58.41	97	29.58
3. Webbing (Kgs.)	3178	5.84	31,834	64.75	37960	73.84
4. Accessories (Kgs.)	..	1.52	36,188	10.60	..	22.38
5. Additional Loan	..	6.78	..	9.23	..	2.01
6. Cycles	..	..	..	..	..	..
7. Autorickshaws	..	..	..	..	..	..
8. Vanitha Bus	..	..	..	..	..	..
Sub Total Inputs (Financial)		31.75	..	194.51	..	163.99
B. Infrastructure facilities						
1. Auction and processing halls & service complex	..	..	..	..	..	..
2. Ice and cold storage plants	..	..	..	1.10	..	..
3. Insulated vehicles	..	..	..	4.90	..	..
4. Transport vehicles	..	..	..	3.00	..	..
5. Service facilities	..	..	..	2.96	..	..
6. Extension capital/services	..	..	..	6.28	..	1.41
7. Operational /management expenditure	..	..	..	47.97	..	11.61
8. Pre-operative expenses	..	..	..	30.00	..	9.85
9. Working capital	..	..	..	0.85	..	..
10. Physical and price contingencies	..	..	..	..	..	..
11. Training	..	..	..	1.60	..	2.16
Sub total B (Financial)	..	..	..	98.66	..	25.03
Total A+B (financial)	..	31.75	..	293.17	..	189.02
C. No. of Groups Benefited						
	47	..	403	..	96	..

Source: Matsyafed.

Appendix 4.18

Details of Fisheries works under Harbour Engineering Department

(Rs. lakhs)

Sl.No.	Name of Project	Total estimated project cost		Year of starting	Year of completion/ Targeted	Expenditure incurred upto 12/88	Remarks
		Original	Revised				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Fishing Harbours							
1.	Vizhinjam fishing harbour 1st Stage	173.00	208.00	1962	1980	208.00	Schemes completed.
	2nd & 3rd stage	539.20	704.00	1980	1990	617.41	Due to rehabilitation problems, the work lagged behind.
2.	Neendakara Fishing Harbour	370.00	585.00	1980	1988	617.54	Almost completed.
3.	Thangasserry fishing harbour	1411.00	..	not commenced	1993	..	
4.	Munambam fishing harbour	710.00	..	..	1993	..	
5.	Puthiappa fishing harbour	527.00	..	1988	1992	6.24	Work in progress
B. Landing Centres for Mechanised boats							
1.	Kasaragod	13.44	36.50	1977	1986	38.92	Completed.
2.	Munakkakadavu	18.43	..	1982	1986	22.83	Completed.
3.	Neeleswaram	10.25	30.73	1983	1985	28.61	Completed.
4.	New Mahe	28.43	..	1988	1989	9.64	Nearing completion.
5.	Thottappally	25.27	..	1984	1989	19.76	Nearing completion.
6.	Palacode	15.00	..	1986	..	2.70	
7.	Cheruvathur	18.43	..	1982	1989	13.81	
8.	Dharmadam	20.95	..	1984	1989	14.44	Works in progress
9.	South paravoor	24.94	..	Not commenced	..	0.38	
10.	Chethuwai	19.50	..	..	..	0.023	
C. Fishing Landing Centres for Traditional Fishermen							
1.	Vizhinjam North	18.7	..	1986	..	5.28	
2.	Vizhinjam South	19.1	..	1988	1990	0.07	Being commenced.
3.	Vallikkunnu	17.9	..	1985	1989	13.12	Work in progress
4.	Vellayil beach	22	..	1988	1990	0.83	Work in progress
5.	Chalil gopalpettah	25	..	Not commenced	..	0.0007	
6.	Quilon Port	22	..	..	..	..	Dropped in view of the Thankasserry fishing Harbours.
D. Brackish Water Fish Farms							
1.	Poyya	23.62	81	1984	1989	63.52	Work in progress
2.	Njarakkal-Malippuram	19.60	60	1984	1989	53.87	..
3.	Ayiramthengu	6.37	17.70	1984	1988	8.05	..
4.	Palaikari	21.98	..	1984	1988	21.77	Completed
E. National Seed Farms							
1.	Malampuzha	39	..	1982	1989	59.30	Almost completed
2.	Polachira	39	..	1962	1987	31.13	Almost completed.

Source: Harbour Engineering Department.

871062/MC.

Appendix 4.19

Details of Selected Physical and Financial achievements of Kerala Fishermen Welfare Fund Board since its inception

(Rs. lakhs)

Name of Welfare Scheme	1986-87		1987-88		1988-89 (Upto 31-3-1988)	
	No. of Beneficiaries	Amount	No. of Beneficiaries	Amount	No. of Beneficiaries	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Group Insurance Scheme	52	7.28	97	14.55	37	5.40
2. Old Age Pension	3391	2.54	16112 (Cumulative)	39.96	17511 (Cumulative)	37.63
3. Compensation to the dependants of fishermen who die while fishing/death cases	3	0.45	21	2.65	43	4.02
4. Assistance for the marriage of daughters of fishermen	133	1.54* (0.27)	334	3.94* (0.67)	1	0.12* (0.002)
5. Financial assistance for the death of dependants	44	0.11	220	0.55	71	0.18
6. Financial assistance for funeral expenses	..	..	1	0.003	12	0.03
7. Financial assistance for temporary disability	114	0.17	100	0.08	117	0.30

* Represent loan portion and the figures in bracket represent ex-gratia payment.

Source: Kerala Fishermen Fund Board.

APPENDIX 4.20

Division wise Area of Forests in Kerala

Division	Area in Hectares as on 31-3-1988			
	Reserve Forests	Proposed for Reserve Forests	Vested Forests	Total
(1)	(2)	(3)	(4)	(5)
A. General Division				
1. Trivandrum	38375.90	774.63	397.50	39548.03
2. Thenmala	46729.73	..	794.40	47524.13
3. Punalur	28005.07	..	16.90	28021.97
4. Konni	32064.30	1102.10	309.60	33476.00
5. Ranni	105028.94	716.70	161.10	105906.74
8. Kottayam	65548.60	525.70	3140.90	69215.20
7. Munnar	66275.02	4725.60	631.20	71631.82
8. Kothamangalam	31685.50	..	21.30	31707.80
9. Malayattoor	61724.11	52.48	5.60	61782.19
10. Vazhachal	41394.38	..	..	41394.38
11. Chalakud	27970.98	..	..	27970.98
12. Trichur	33101.81	..	634.30	33736.11
13. Nemmara	20993.10	..	..	20993.10
14. Palghat	28291.13	..	..	28291.13
15. Nilambur	32469.02	..	..	32469.02
16. Kozhikode	6759.78	8613.88	..	15373.66
17. Wayanad	36277.16	1506.44	..	37783.60
Sub Total (A)	702695.53	18017.53	6112.80	726825.86
B. Special Divisions				
1. Tellicherry	..	..	16132.31	16132.31
2. Palghat	..	..	75187.63	75187.63
3. Kozhikode	..	358.95*	46080.89	46439.84
4. Nilambur	..	..	43460.70	43460.70
Sub Total (B)	..	358.95	180861.53	181220.48
C. Wild Life Divisions				
1. Trivandrum	28132.00	..	..	28132.00
2. Idukki-Eravikulam	28252.68	..	..	28252.68
3. Thekkady	77700.00	54.38	..	77754.38
4. Parambikulam	34914.08	..	..	34914.08
5. Wayanad	34686.41	..	1782.50	36468.91
6. Silent Valley	8952.00	..	..	8952.00
Sub Total (C)	212637.17	54.38	1782.50	214474.05
Total (A+B+C)	915332.70 (81.54)	18430.86 (1.64)	188756.83 (16.82)	1122520.39

*Prohibitory order Book land.

Figures in bracket indicate percentage to total area.

Source: Forest Department.

APPENDIX 4.21

Species-wise Area Under Forest Plantations—Area in Hectares

Name of species	Area in Hectares			
	As on 31-3-1986	As on 31-3-1987	As on 31-3-1988	Percentage to total 31-3-1988
(1)	(2)	(3)	(4)	(5)
1. Teak	79596.4	79415.8	78583.4	50.58
2. Eucalyptus	34808.5	34727.9	33986.5	21.88
3. Soft wood	29193.3	23101.3	10695.3	6.89
4. Mixed plantation	4532.4	5955.3	17832.3	11.48
5. Cashew	4657.9	4657.9	4157.1	2.68
6. Bamboo	1055.8	3010.4	279.8	0.18
7. Wattle	2865.9	3005.9	3084.9	1.99
8. Hardwood	1162.1	1162.1	588.3	0.38
9. Fuel wood	1059.1	1072.0	1448.0	0.93
10. Pepper	543.1	543.1	507.7	0.33
11. Pine	449.2	449.2	449.2	0.29
12. Mahagony	173.1	173.1	80.1	0.05
13. Rosewood	158.5	158.5	182.8	0.12
14. Balsa	117.0	117.0	81.4	0.05
15. Cardamom	26.5	26.5	..	..
16. Sandal wood	14.7	14.7	13.9	0.01
17. Kongu (Thambakom)	17.2	14.0	14.0	..
18. Zylonicum	3.5	3.5	..	..
19. Others	2842.0	2763.3	3352.4	2.16
Total	157216.2	160371.5	155337.1	100.00

Source: Forest Department.

APPENDIX 4.22

Production of Major Forest Produce

Item	Unit	Period		Actual increase or Decrease over the year
		1986-87	1987-88	
(1)	(2)	(3)	(4)	(5)
1. Timber (Round Log)	'000 cum.	107.028	51.115	(-)45.913
2. Timber (Round Poles)	'000 Nos.	1008	940	(-)68
3. Timber (Swan & sward)	Cum.	42.241	32.131	(-)10.110
4. Fire wood	1000 tonnes	78.474	25.438	(-)53.036
5. Charcoal	Tonnes	25.650	18.515	(-)7.135
6. Cardamom uncurred/Dried	Kg.	34070 7954	10152	(-)34070 2198
7. Honey	Tonnes	14.813	15.622	(+)0.809
8. Reeds	Lakh Nos.	266	1100	(+)834
9. Bamboo	'000 Nos.	6281	4225	(-)2056
10. Jungle Wood Poles	Nos.	1400	1172	(-)228
11. Sandal wood	Tonnes	65.418	122.540	(+)57.122

Source: Forest Department:

APPENDIX 4.23

Forest Revenue in Kerala (Revenue from Timber and other Forest Produce)

(1)	Sale proceeds (Rs. lakhs)		Increase or Decrease	
	1986-87	1987-88	Actual (Rs. lakhs)	Percentage
(1)	(2)	(3)	(4)	(5)
A. Revenue from forests				
1. Timber	3775.90	3248.05	(-)527.25	13.97
2. Firewood & Charcoal	90.35	96.04	(+)5.69	6.30
3. Livestock	0.35	1.25	(+)0.90	257.14
4. Others	812.30	534.22	(-)278.08	34.23
Sub Total (A)	4678.30	3879.56	(-)798.74	17.07
B. Other Receipts including interest on Forest Revenue	176.89	148.71	(-)28.18	15.93
C. Total (A+B)	4855.19	4028.27	(-)826.92	17.03
D. Refunds	36.99	8.84	(-)28.15	76.10
E. Net Revenue (C.-D)	4818.20	4019.43	(-)798.77	16.58

Source: Forest Department

APPENDIX 4.24

Physical and Financial Achievements under Social Forestry (1987-88)

(Rs. lakhs)

Particulars (1)	Physical Achievement		Financial Achievement
	Unit (2)	Achievement (3)	Expenditure (4)
<i>Social Forestry</i>			
A. World Bank assisted			
1. Block Plantation in Government lands	Ha.		
(a) Large Blocks	"	2447.04	} 988.89
(b) Small Blocks	"	418.68	
2. Strip plantations	"	169.03	
3. Tribal Fuel Wood Plantation	"	213.62	
4. Tribal medicinal	"	1.00	
5. Farm Forestry distribution of seedlings	Lakhs	697.00	
6. Seedlings Production	"	242.90	
B. Rural Fuel Wood Scheme (50% Centrally Sponsored)	Ha.	723.48	61.82
C. N.R.E.P. (Rural Development Fund)			
1. Compact planting	Ha.	608.21	} 253.72
2. Belt Plantation	Kms.	160.32	
3. Seedlings distributed under farm forestry	lakhs	107.23	
D. R.L.E.G.P.—I (100% Centrally Sponsored)			
1. Plantation in belt submergible area	Ha.	161.00	} 36.98
2. Farm Forestry	Lakhs	7.50	
E. R.L.E.G.P.—II (100% Centrally Sponsored)			
1. Construction of Cairns	Nos.	6844	} 241.36
2. Stone wall	Kms.	245.3	
3. Belt Plantation	Ha.	1062.25	
4. Fire Line path	Kms.	75.60	
5. Nursery for planting	Beds	756	
6. Farm Forestry Nursery	"	604	
7. Camping facilities	Nos	45	

Source: C.C.F. (Social Forestry & Projects)

Details of Physical achievements under selected programmes on Wild Life Sanctuaries and National Parks—1988

Name of Sanctuary/ National Park	Physical Achievements										
	Boundary Survey (Kms)	Cairns erected (Nos)	Roads & Paths (Kms)	Constru- ction of walls (Kms)	Watch towers (Nos)	Wireless sets & Stations (Nos)	Fire Prote- ction lines (Kms)	Power fencing (Kms.)	Check dams (Nos)	Buildings/ Quarters/ sheds	Affore- station (ha/Nos.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Parambikulam Sanctuary	..	..	174 (Mt)	..	1	2	242	7.5	3	..	..
2. Chimony "	..	101	..	..	..	..	60	..	..	..	..
3. Wayanad "	33.6	..	52 (Im)	..	2	28 (St) 3 (stn.)	690	16.2	1	2(B) 6 (Q)	..
4. Periyar Tiger Reserve Sanctuary	4	..	74.55 F 106 (Mt)	0.85	..	..	141	..	..	1 (B) 1 (Q)	..
5. Neyyar Sanctuary "	28	562	515 (Im)	1.70	..	2 (st) 1 (stn.)	105	10	..	1 (B) 8(Q) 2 (S)	10,000 (Bamboos)
6. Peppara "	6	98	47 (mt)	0.34	..	1 (st) 2 (stn.)	103	..	..	1 (B) 5(Q) 1(S)	10.45 ha 8750 (Bamboos)
7. Shendurney "	..	20	..	1.10	..	3 (st) 2 (stn.)	59	..	..	1(B) 7(Q) 1 (S)	5000 (Bamboos)
8. Idukki "	40	869	15.50(F)	..	..	6 (st) 1 (stn.)	109	..	..	..	27.54 (ha)
9. Ghinnar "	120	1014	18(F)	..	..	8 (st) 1 (stn.)	64	..	..	1(B) 4(Q)	41 (ha)
10. Thattekkad Bird "	15.5	300	..	..	..	3 st) 1 (stn.)	15	..	..	..	309 (ha)
11. Peechi-Vazhani "	..	349	..	..	..	..	..	..	..	1(B) 2 (Q)	..
12. Eravikulam National Park	15	65	31 (F)	..	..	7 (st) 1(stn.)	21.55	..	..	1 (B)	..
13. Silent Valley National Park	..	349	22.5 (Mt)	..	..	15 (st) 9 (stn.)	116	..	..	1(B) 8(Q)	..

Source: Additional G.C.F. (Forestry and Wild Life)

Notes: 1. St—Wireless sets

stn—Wireless station

2. F—Formation/Construction

Mt—Maintenance

Im—Improvement

3. B—Office Buildings

Q—Quarters for Officers & Staff

S—Sheds

Major and Medium Irrigation Projects in Kerala

Sl. No.	Name of Project year of starting--Year of completion	Original estimate (Rs. lakhs)	Latest estimate (Rs. lakhs)	Total expenditure 3/88 (Rs. lakhs)	Expected areas to be irrigated		Cumulative achievement till the end of 6/88		Percentage increase over the Original estimate
					Net (ha.)	Gross (ha.)	Net (ha.)	Gross (ha.)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Completed Projects:									
1.	Chalakydy (1949-1966)	188.00	188.25	188.25	26680	39380	13530	27258	..
2.	Pecchi (1947-1959)	235.00	235.00	235.00	17555	28080	15262	23718	..
3.	Malampuzha (1949-1966)	388.00	580.00	580.00	29463	42090	19802	40208	49.5
4.	Neyyar (1951-1973)	248.00	461.00	461.00	16042	17952	8300	16716	85.9
5.	Pothundy (1958-1971)	234.00	234.25	234.25	8792	10930	4685	10046	..
6.	Gayathri (1956-1970)	220.00	220.00	220.00	7651	10930	4880	10114	..
7.	Walayar (1933-1964)	92.00	131.66	131.66	4536	6470	3752	6503	43.1
8.	Vazhani (1951-1962)	108.00	107.57	107.57	3565	7130	2113	4226	..
9.	Mangalam (1953-1966)	45.00	106.00	106.00	4816	6880	3313	6608	135
10.	Cheerakuzhi (1957-1973)	91.00	90.76	80.76	2268	2828	952	1746	..
Ongoing Schemes:									
11.	Kallada (1961-)	1328.00	31349.00	23338.00	61630	92800	10000	14991	2260
12.	Pamba (1964-)	383.00	6341.00	5273.00	21135	49456	20718	48480	1555
13.	Muvattupuzha (1976-)	2086.00	6859.00	2846.62	17400	52200	..	..	229
14.	Periyar Valley (1956-)	348.00	6304.00	5370.00	30444	32800	29725	77584	1711
15.	Chimoni (1975-)	633.00	2951.00	1583.00	13000	26200	..	..	366
16.	Chitturpuzha (1961-)	106.00	2080.00	1740.00	14500	28960	13901	25856	1862
17.	Kanjirapuzha (1961-)	365.00	5976.00	4318.00	9720	21863	6883	15487	1537
18.	Kuttiadi (1962-)	496.00	4485.00	4977.00	14570	35850	14108	34710	804
19.	Pazhassi (1964-)	442.00	7736.00	5813.00	11525	32374	7466	14932	1650
20.	Vamanapuram (1981-)	1982.00	3640.00	187.00	8803	18014	..	..	83
21.	Idamalayar (1981-)	1785.00	7121.00	2071.00	13659	39318	..	..	298
22.	Kuriarkutty (1978-)	1036.00	4881.00	129.32	1736	23472	..	..	371
23.	Chaliyar (Beyporepuzha)	37800.00	..	56.22	5812	13624	..	..	..
24.	Kakkadavu (1979-)	1335.00	5100.00	168.01	12817	26106	..	..	282
25.	Attappady (1975-)	476.00	5000.00	628.00	4190	8378	..	..	950
26.	Karapuzha (1975-)	760.00	4066.00	1028.00	4650	9300	..	..	495
27.	Meenachil (1980-)	3900.00	4956.00	73.00	10000	20000	..	..	50
28.	Banasurasagar (1979-)	800.00	1978.00	129.00	2400	4800	..	..	124
Total		57810.00	112997.49	62072.98	379359	708185	179390	379183	

Appendix 5.2

Major and Medium Irrigation Projects—Achievements during 1987-88

Sl. No.	Name of Project	Command area in (Ha.)		Physical achievements during 1987-88 (Ha.)		Cumulative achievements upto 1987-88 (Ha.)		Expenditure during 1987-88 (Rs. in lakhs)
		Net	Gross	Net	Gross	Net	Gross	
(1)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Completed Schemes:								
1.	Chalakydy	26680	39380	..	..	13530	27258	..
2.	Peechi	17555	28080	..	..	15262	23718	..
3.	Malampuzha	29463	42090	..	..	19802	40208	..
4.	Neyyar	16042	17952	..	..	8300	16716	..
5.	Pothuddy	8792	10930	..	..	4685	10046	..
6.	Gayathri	7651	10930	..	..	4880	10114	..
7.	Walayar	4536	6467	..	..	3752	6503	..
8.	Vyazhani	3565	7130	..	..	2113	4226	..
9.	Mangalam	4816	6880	..	..	3313	6608	..
10.	Cheerakuzhi	2268	2828	..	..	952	1746	..
B. Ongoing Schemes:								
11.	Kallada	61630	92800	2927	4390	10000	1499 ^a	2996.74
12.	Pamba	21135	49456	114	267	20718	48480	56.62
13.	Muvattupuzha	17400	52200	..	..	..	..	238.17
14.	Petiyarvalley	30444	32800	295	771	29725	77584	249.25
15.	Chimoni	13000	26200	..	..	..	..	195.46
16.	Chitturpuzha	14500	28960	153	285	13901	25856	145.41
17.	Kanjirapuzha	9720	21863	..	..	6883	15487	191.05
18.	Kuttiadi	14570	35850	..	..	14108	34710	17.61
19.	Pazhassi	11525	32374	18	36	7466	14932	151.62
20.	Vamanapuram	8803	18014	..	..	..	..	38.66
21.	Idamalayar	13659	39318	..	..	..	..	48.31
22.	Kuriarkutty	1736	23472	..	..	..	..	..
23.	Chaliyar (Beyporepuzha)	5812	13624	..	..	..	..	9.83
24.	Kakkadavu	12817	26106	..	..	..	..	10.31
25.	Attappady	4190	8378	..	..	..	..	52.91
26.	Karapuzha	4650	9300	..	..	..	..	142.91
27.	Meenachil	10000	20000	..	..	..	..	12.61
28.	Banasurasagar	2400	4800	..	..	..	..	2.06
Total		379359	708185	3507	5749	179390	379183	4588.83

Appendix 5.3

Physical and Financial Achievements under Minor Irrigation Programmes

Sl. No.	Items	Cumulative Achievement till the end of 1986-87		Actual expenditure during 1987-88 (Rs. in lakhs)	Achievement during 1987-88		Cumulative area brought under irrigation till the end of 1987-88	
		Net	Gross		Net	Gross	Net	Gross
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Minor Irrigation Class I	31639	47610	65.16	1361	2042	33000	49652
2.	Minor Irrigation Class II PWD	83161	83161	76.55	1251	1251	84412	84412
3.	Minor Irrigation Class II with people's participation	..	..	..	..	..	..	..
4.	Lift Irrigation	38225	57340	86.26	1517	2276	39742	59616
5.	I.P.D. Yelah Schemes	18676	18676	21.96	490	490	19166	19166
6.	Repairs to Minor Irrigation structures and others	4129	4129	107.67	1373	1373	5502	5502
	Total	175830	210916	357.60	5992	7432	181822	218348

Appendix 5.4

Number of Minor Irrigation works proposed and completed during 1987-88

Sl. No.	Item	Number of works pending completion	Number of works proposed during the year	Number of works completed
	(1)	(2)	(3)	(4)
1.	Minor Irrigation Class I	85	125	40
2.	Minor Irrigation Class II PWD.	116	179	63
3.	Minor Irrigation Class II (with people's participation)	..	..	..
4.	Lift Irrigation	91	131	40
5.	Repairs to Minor Irrigation and others including Community Irrigation, SCP and TSP	481	559	78
6.	I.P.D. Yelah Scheme	30	63	33

Appendix 5.5

Physical and Financial Achievement under flood Control and Anti-sea erosion Programmes during 1987-88

Item	No. of works proposed	No. of works completed	No. of works pending	Achievement	Amount spent (Rs. in lakhs)
(1)	(2)	(3)	(4)	(5)	(6)
Anti Sea Erosion	87 New works	8 New works	79 New works	4.15 Km. of new sea wall	470.806
	45 Reformation works	6 Reformation works	39 Reformation works	4.88 Km. old sea wall	..
Flood control	81	6	75	1024 (ha) protected from the ravages of flood	95.934

Appendix 5.6

Growth of Kerala power system at a Glance

Particulars	Position as on	
	31-3-1987	31-3-1988
(1)	(2)	(3)
1. Installed Capacity—MW	1477	1477
2. Maximum demand—MW		
(a) System	1061	1075
(b) Internal	1104	1116
3. Generation per annum—MW	4642	4094
4. Import per annum—MW	512	1009
5. Export per annum—MU	19	17
6. Energy sales per annum—MU	3716	3627
7. Energy losses as percentage of energy available for sale	27.58	28.64
8. Per capita consumption—KWH	130.5	125.76
9. 220 KV lines—CT. km.	887	887
10. 110 KV lines—CT. km.	2206	2261
11. 66 KV lines—CT. Km.	2507	2548
12. 11 KV lines—CT. km.	17531	17956
13. LT Lines—CT. km.	80309	84570
14. Step up transformer capacity—MVA	1726	1726
15. No. of the E.H.T. sub stations	116	120
16. Step down transformer capacity—MVA	3972	3992
17. Distribution transformer		
(a) Numbers	14015	14598
(b) Capacity—KVA	1443	1504
18. No. of Villages electrified	All	All
19. No. of consumers (in lakhs)	26.1	27.7
20. Connected load—MW	3379	3568
21. No. of street lights	470730	476009
22. No. of irrigation pumps	158345	171926
23. Total revenue per annum (Rs. in lakhs)	17930	22160

APPENDIX 5.7

Power Projects and Power Generation Capacity as on 31-3-1988

Project	Installed capacity in MW	Energy potential (MKWH)	Units Generated (MKWH)
(1)	(2)	(3)	(4)
1. Pallivasal	3 x 50 3 x 75	79.54	220.36
2. Sengulam	4 x 12	49.61	123.37
3. Neriamangalam	3 x 15	67.57	243.98
4. Panniar	2 x 15	45.47	82.19
5. Peringalkuth	4 x 8	63.43	215.03
6. Sabarigiri	6 x 50	770.32	976.93
7. Sholayar	3 x 18	99.47	138.27
8. Kuttiyadi	3 x 25	41.46	204.68
9. Idukki	3 x 130	2145.58	1522.39
10. Idamalayar	2 x 37.5	254.0	365.53
Total			4094.00

APPENDIX—5.8

Details of ongoing Hydro Electric Power Generation Projects in Kerala.

Sl. No.	Name of Project	Year of starting	Original estimate	Latest estimate with year	Energy potential M U	Expenditure upto 3/88 on the Project	Expected year of commissioning	Percentage increase in the original estimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	Idamalayar	1970	2340	9003/1986	320	9009	..	284.7
2.	Idukki Stage III	1975	410	1459/1986	376	1395	..	255.9
3.	Idukki Stage II	1980	3168	6800/1986	390	..	..	114.6
4.	Azhutha diversion	1987	..	300/1986	57	..	8/91	..
5.	Sabarigiri Augmentation	1976	128	996/1988	125	833	12/91	678.00
6.	Kakkad	1976	1860	6941/1988	262	3106	9/91	273.20
7.	Kallada	1981	1180	1386/1986	53	654	9/90, 12/90	17.5
8.	Lower Periyar	1983	8843	10900/1988	493	2910	9/91	23.5
9.	Madupetty Small H.E. Scheme	1987	..	332/1988	5.6	11	11/90	..
10.	Malampuzha Small H.E. Scheme	1987	..	345/1988	6.4	9	11/90	..
11.	Malankara Small H.E. Scheme	1987	..	780/1985	36	11	91-92	..
12.	Chimony Small H.E. Scheme	1987	..	360/1988	11.5	5	91-92	..
13.	Peppara Small H.E. Scheme	1987	..	567/1988	6.5	..	91-92	..
14.	Pooyankutty Stage I	..	..	25000/1985	615	29	..	..
	<i>New Schemes</i>							
	Kuttiar diversion			214/1988	..	..	91-92	..
	Vadakkapuzha diversion			131/1987	..	..	91-92	..

APPENDIX—5.9

Pattern of consumption of power and revenue collected (Internal) 1987-88

Category	No. of consumers as on 31-3-1988	Connected load as on 31-3-1988 (MW)	Energy (Million)	Consumption as per centage to total	Revenue collected (Provisional) (Rs. in lakhs)	Revenue as percentage to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Domestic lights, fans, heat and small power	20,90,281	1511.74	1073.17	29.6	4430.50	20.00
2. Commercial lights, fans, heat and power	4,50,618	365.72	390.62	10.8	3779.69	17.06
3. Industrial (Low and Medium voltage)	54,722	588.42	244.82	6.8	1691.61	7.64
4. Industrial (High and Extra High Voltage)	538	617.62	1525.25	42.1	10364.74	46.77
5. Irrigation	1,70,993	407.04	146.16	4.03	386.43	1.74
6. Public lighting	1,398	32.82	72.00	2.00	769.83	3.47
7. Water works and sewerage pumping	988	21.60	105.98	2.9	396.50	1.78
8. Bulk supply to Licensees	5	23.40	68.62	1.9	340.67	1.54
Total	27,69,543	3568.36	3626.62	..	22160.00	100.00

APPENDIX 5.10

Average Rates of Electricity Supply and Electricity Duty for different categories of consumers

Sl. No.	Category of consumers	KWH/month	Rate per KWH	Duty	Total	With effect from 1-8-1988
	(1)	(2)	(3)	(4)	(5)	(6)
			Rs.		Rs.	
1.	LTI Domestic:					
	(a) LTI (A)					
	All consumers coming under L.T. single phase supply for domestic use lights, fans, fridge, radios, T. V., mixer, grinder, electric iron, cooking range, oven and such appliances all in actual domestic use and whose half yearly consumption is between 0-600 units is allotted suitable slabs by the Board	(i) 1-15	6.00	10% of energy charge	6.60	
		(ii) 16-20	Total flat rate/ month excluding duty 8.00	do.	8.80	
		(iii) 21-30	13.00	do.	14.30	
		(iv) 31-40	18.00	do.	19.80	
		(v) 41-50	24.00	do.	26.40	
		(vi) 51-65	32.00	do.	35.20	
		(vii) 66-80	40.00	do.	44.00	
		(viii) 81-100	50.00	do.	55.00	
	(b) LTI (B)					
	All consumers coming under LT single phase supply for domestic use as defined above whose average monthly consumption is above 100 Units	Above 100 Units	Fixed energy charges Rs. 50 per month + energy charges at p0.6/Unit from 101,150 0.75/Unit from 151, 200, 1.00/ Unit from 201 & above	10% of Energy charges	..	..
	(c) LTI (C)					
	All consumers coming under LT 3 phase supply for domestic use as defined above will be in this category	Above 100 Units	Fixed charges Rs. 50 per month + Energy charge same as LTI(B)	do.	..	..
2.	LT.IV					
	Supply to general purpose industrial loads (single phase and 3 phase) like flour mill, oil mill, saw mill, Ice factory, printing, public water works, water pumping for non-agricultural use etc.	..	Fixed charge of Rs. 8 per KW of connected load + energy charge at 0.5/Unit	do.	..	..
3.	LTV					
	Applicable to agricultural consumers (single phase and three phase):					
	for consumers having connected load upto 5 KW	..	Fixed charge Rs. 5 per month + 0.12/Unit	..	..	..
	for consumers having connected load above 5 KW upto 10 KW (3 phase)	..	Fixed charge Rs. 10 per KW + 0.12/Unit	10% of energy charge	..	..
	for consumers having connected load above 10 KW upto 40 KW (3 phase)	..	Fixed charge Rs. 3 per KW + 0.12/Unit	do.	..	..
4.	LT.VI					
	Supply to non-domestic (single or 3 phase) consumers like aerodromes, radio station, doordarsan, telephone exchange, government or non-governmental offices, hostel, library, hospital etc.	..	Fixed charge at Rs. 5 per KW + 0.50/Unit upto 5KW/0.80/Unit above 5 KW	do.	..	..
5.	H.T. Tariff:					
	(a) H.T.I.					
	Applicable to water works, printing presses, plantation, industrial consumers etc.	..	Demand charge at Rs. 5/ KVA of billing demand + 0.35/Unit	do.	..	..
	(b) H. T. II					
	Applicable to consumers such as hotels, lodges, commercial establishments, film studios, cinema theatres, business houses etc.	..	Demand charges at Rs. 55/ KVA of billing demand + 0.40/Unit	do.	..	..

(1)	(2)	(3)	(4)	(5)	(6)
(c) <i>H.T.III</i>					
Applicable to non-industrial, non-commercial consumers such as aerodrome, radio station, doordarshan, telephone exchange etc.	..	Demand Rs. 55/KVA of billing demand + 0.40/Unit	10% of energy charge	..	..
(d) <i>H.T.IV</i>					
<i>Agricultural</i> : Applicable to agricultural consumers for all cultivators including dewartering and lift irrigation	..	Demand charge Rs. 45/ KVA of billing demand +0.35/Unit	..	..	..
6. <i>Grid tariff</i> :					
(a) Grid tariff for licensee for supply at 11 KV	..	Demand charge Rs. 80/ KVA of billing demand +0.25/Units	..	..	..
(b) Do. 66 KV		do. Rs. 75/KVA of billing demand + 0.20/Unit	..	..	..
7. <i>EHT Tariff</i>					
(a) 66 KV consumers		Demand charge at Rs. 75/KVA + 0.40/Unit	30% of energy charge	..	..
(b) 110 KV consumers		Demand charge at Rs. 70/KVA + 0.40/Unit	do.	..	..
8. <i>Public lighting</i>					
(a) 40 W metal filament lamp (12 hrs)		Rs. 13/ lamp	..	..	..
(b) 2 x 40W fluorescent lamp (12 hrs)		Rs. 35/ lamp	..	..	..

APPENDIX 6.1

Annual Indices of Industrial Production in Kerala

(Base 1970=100)

Year	Annual Indices of Industrial Production
(1)	(2)
1975-76	121.07
1976-77	130.87
1977-78	139.22
1978-79	154.21
1979-80	160.74
1980-81	187.10
1981-82	180.51
1982-83	158.59
1983-84	139.06
1984-85	183.57
1985-86	200.60
1986-87	170.95

Source: Directorate of Economics and Statistics.

APPENDIX 6.2

Annual Index of Industrial Production (Base 1970=100)

Industrial Code Major Group	Item	Weight	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)	(5)	(9)
	<i>General Index</i>	100.00	183.57	200.60	170.95
20-21	Manufacture of Food Products	18.15	165.07	148.03	176.94
23.	Manufacture of Cotton Textiles	6.46	137.90	122.98	103.69
24.	Manufacture of Wool, Silk and Synthetic Fibre Textiles	4.14	57.93	123.96	43.99
25.	Manufacture of Textile Products	1.57	105.80	90.81	80.07
27.	Manufacture of Wood and Wood Products, Furniture and Textiles	4.08	176.31	100.56	114.94
28.	Manufacture of Paper and Paper Products and Printing, Publishing and Allied Industries	12.54	68.33	69.40	53.17
30.	Manufacture of Rubber, Plastic, Petroleum and Coal products	7.00	107.69	206.06	239.07
31.	Manufacture of Chemical and Chemical products (Except petroleum and coal products)	16.50	294.82	388.25	243.97
32.	Manufacture of Non-metallic Mineral products	3.82	270.50	182.67	181.07
33.	Manufacture of Basic Metals and Alloys Industries	3.33	213.40	176.96	100.34
34.	Manufacture of Metal products and parts except Machinery and Transport Equipment	0.69	235.55	282.56	355.44
35.	Manufacture of Machinery, Machine tools parts except Electrical Machinery	0.16	84.82	64.29	55.36
36.	Manufacture of Electrical Machinery Apparatus, Appliance and Supplies and Parts	2.07	126.77	144.31	114.75
37.	Manufacture of Transport Equipment and parts	0.39	8.36	30.37	213.84
38.	Other Manufacturing Industries	0.54	49.40	43.29	77.95
46.	Electricity	18.56	250.91	275.11	238.52

(1)	(2)	(3)	(4)	(5)	(6)
(c) H.T.III					
Applicable to non-industrial, non-commercial consumers such as aerodrome, radio station, doordarsan, telephone exchange etc.	..	Demand Rs. 55/KVA of billing demand + 0.40/Unit	10% of energy charge	..	..
(d) H.T.IV					
<i>Agricultural:</i> Applicable to agricultural consumers for all cultivators including dewartering and lift irrigation	..	Demand charge Rs. 45/ KVA of billing demand + 0.35/Unit	..	..	..
6. Grid tariff:					
(a) Grid tariff for licensees for supply at 11 KV	..	Demand charge Rs. 80/ KVA of billing demand + 0.25/Units	..	..	..
(b) Do. 66 KV		do. Rs. 75/KVA of billing demand + 0.20/Unit	..	..	..
7. EHT Tariff					
(a) 66 KV consumers		Demand charge at Rs. 75/KVA + 0.40/Unit	30% of energy charge	..	..
(b) 110 KV consumers		Demand charge at Rs. 70/KVA + 0.40/Unit	do.	..	..
8. Public lighting					
(a) 40 W metal filament lamp (12 hrs)		Rs. 13/ lamp	..	..	..
(b) 2 x 40W fluorescent lamp (12 hrs)		Rs. 35/ lamp	..	..	..

APPENDIX 6.1

Annual Indices of Industrial Production in Kerala

(Base 1970=100)

Year	Annual Indices of Industrial Production
(1)	(2)
1975-76	121.07
1976-77	130.87
1977-78	139.22
1978-79	154.21
1979-80	160.74
1980-81	187.10
1981-82	180.51
1982-83	158.59
1983-84	139.06
1984-85	183.57
1985-86	200.60
1986-87	170.95

Source: Directorate of Economics and Statistics.

APPENDIX 6.2

Annual Index of Industrial Production (Base 1970=100)

Industrial Code Major Group	Item	Weight	1984-85	1985-86	1986-87
(1)	(2)	(3)	(4)	(5)	(6)
	<i>General Index</i>	100.00	183.57	200.60	170.95
20-21	Manufacture of Food Products	18.15	165.07	148.03	176.94
23.	Manufacture of Cotton Textiles	6.46	137.90	122.98	103.69
24.	Manufacture of Wool, Silk and Synthetic Fibre Textiles	4.14	57.93	123.96	43.99
25.	Manufacture of Textile Products	1.57	105.80	90.81	80.07
27.	Manufacture of Wood and Wood Products, Furniture and Textiles	4.08	176.31	100.56	114.94
28.	Manufacture of Paper and Paper Products and Printing, Publishing and Allied Industries	12.54	68.33	69.40	53.17
30.	Manufacture of Rubber, Plastic, Petroleum and Coal products	7.00	107.69	206.06	239.07
31.	Manufacture of Chemical and Chemical products (Except petroleum and coal products)	16.50	294.82	388.25	243.97
32.	Manufacture of Non-metallic Mineral products	3.82	270.50	182.67	181.07
33.	Manufacture of Basic Metals and Alloys Industries	3.33	213.40	176.96	100.34
34.	Manufacture of Metal products and parts except Machinery and Transport Equipment	0.69	235.55	282.56	355.44
35.	Manufacture of Machinery, Machine tools parts except Electrical Machinery	0.16	84.82	64.29	55.36
36.	Manufacture of Electrical Machinery Apparatus, Appliance and Supplies and Parts	2.07	126.77	144.31	114.75
37.	Manufacture of Transport Equipment and parts	0.39	8.36	30.37	213.84
38.	Other Manufacturing Industries	0.54	49.40	43.29	77.95
48.	Electricity	18.56	250.91	275.11	238.52

Source: Directorate of Economics and Statistics.

APPENDIX 63

Districtwise Distribution of Working Factories and Employment in Kerala for the Year Ending 31-12-1986

Sl. No.	Name of Industry	Trivandrum		Quilon		Pathanamthitta		Alleppey		Kottayam		Idukki		Ernakulam		Trichur	
		A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
1.	Oil	11	196	16	3	15	41	439	9	37	14	61	43	346	103	612	
2.	Tea	5	111	3	..	..	..	..	9	124	70	4298	1	63	1	76
3.	Cashew	13	5851	225	87557	..	5	5027	..	..	..	..	1	19	4	1937
4.	Cotton Textiles	14	1776	10	2232	4	42	3	819	3	522	..	19	2001	17	3628	
5.	Coir	3	39	7	201	..	..	191	2608	4	81	1	9	31	375	3
6.	Plywood, splints & Veneers	23	307	64	1566	..	..	26	441	94	930	8	96	48	1012	34
7.	Saw Mills	55	281	91	460	12	52	70	256	117	633	10	38	286	1762	181	
8.	Printing & Publishing	56	1916	39	249	32	153	48	281	113	1007	18	104	159	2154	91	
9.	Rubber & Rubber products	41	1082	44	504	52	370	34	442	319	3485	42	327	106	1789	102	
10.	Chemical & Chemical products	15	1092	13	308	1	3	31	648	23	719	1	9	70	8459	26	
11.	Matches	11	97	19	271	2	16	14	119	11	114	2	34	10	170	30	
12.	Soap	1	5	3	39	..	..	3	24	3	24	..	..	9	1196	4
13.	Tiles	2	102	51	1802	2	18	4	139	20	186	..	..	40	855	160
14.	General Engineering	75	2085	103	2168	20	117	88	2087	103	765	33	268	439	10777	237	
15.	Automobiles	39	3219	23	606	13	77	33	982	74	875	20	129	120	1722	84	
	Others	91	2261	222	3809	22	756	177	2370	180	3571	23	390	531	11945	351	
	Total	455	20420	938	102005	163	1619	768	16682	1022	13073	242	5763	1913	44645	1428	

A. No. of factories
B. No. of Employment

APPENDIX C.A (Contd.)
Districtwise Distribution of Working Factories and Employment in Kerala for the year ending 31.12.1983

Sl.No.	Name of Industry	Palghat		Malappuram		Kozhikode		Cannanore		Wayanad		Kasaragod		Total	
		A	B	A	B	A	B	A	B	A	B	A	B	A	B
(1)		(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
1.	Oil	14	83	11	40	44	359	28	133	2	17	..	..	339	2466
2.	Tea	3	183	..	..	..	..	..	..	19	829	..	..	111	5789
3.	Cashew	..	..	..	..	2	544	3	980	..	..	..	..	253	101915
4.	Cotton Textiles	17	1607	5	1023	51	2122	405	8657	..	..	..	..	548	24429
5.	Coir	..	..	12	120	31	510	16	176	..	..	1	12	300	4149
6.	Plywood, splints & Veneers	103	1550	29	391	100	1112	52	1954	..	..	1	10	522	9841
7.	Saw Mills	199	812	154	773	182	1354	152	1173	8	41	1	15	1518	8592
8.	Printing & Publishing	48	506	28	129	84	1396	65	406	8	29	..	..	789	9374
9.	Rubber & Rubber products	49	273	59	485	74	485	94	357	1	3	..	..	1017	11427
10.	Chemical & Chemical products	35	555	13	899	33	558	25	264	2	16	..	..	288	14221
11.	Matches	25	326	10	100	19	156	8	99	..	..	..	..	161	1835
12.	Soap	1	7	4	31	13	675	2	55	..	..	..	..	48	2139
13.	Tiles	12	493	9	492	33	3228	11	804	..	..	..	..	944	12184
14.	General Engineering	232	3483	50	652	191	2131	147	1457	6	17	..	..	1724	28242
15.	Automobiles	54	330	37	514	137	1548	105	672	8	30	..	..	747	11454
	Others	460	4211	117	959	388	5856	251	2626	10	206	3	40	2826	44795
	Total	1252	14419	538	6608	1382	22034	1364	19813	64	1188	6	77	11530	292852

A. Number of factories
 B. Number of Employment

APPENDIX 6.4

District-wise Distribution of Working Factories and Employment in Kerala for the year ending 31-12-1987 (Provisional)

(1)	Trivandrum		Quilon		Pathanamthitta		Alleppey		Kottayam		Idukki		Ernakulam		Trichur	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
1. Oil	12	192	17	3	14	37	375	9	44	13	53	40	343	99	502	
2. Tea	5	112	3	..	..	..	..	8	88	70	4152	1	61	1	137
3. Cashew*	19	7664	226	89507	..	6	5474	..	..	..	..	2	469	5	2606
4. Cotton Textiles	14	1463	9	2046	3	4	792	3	537	..	..	16	1979	19	3564
5. Coir	2	31	7	176	..	186	2463	3	64	1	9	30	336	5	29	
6. Plywood, Splants & Veneers	23	323	59	1427	1	27	452	36	913	11	122	56	1070	33	449	
7. Saw Mill	71	325	103	516	28	64	241	111	576	10	39	283	1721	191	956	
8. Printing and Publishing	62	2184	39	241	4	48	245	115	1209	22	105	161	2151	97	1088	
9. Rubber & Rubber products	43	1499	46	392	64	33	397	328	3708	47	364	104	1764	115	2057	
10. Chemical and Chemical Products	14	932	15	1208	..	32	666	26	862	1	8	77	8169	34	740	
11. Matches	9	78	20	287	1	14	118	7	82	2	28	8	116	29	415	
12. Soap	1	7	3	43	..	3	24	3	24	..	..	9	1261	3	64
13. Tiles	3	153	52	1733	2	4	139	20	196	..	..	39	723	170	4190
14. General Engineering	75	2134	111	2274	21	88	2080	103	747	32	255	449	10875	252	2319	
15. Automobiles	41	2986	25	505	23	34	844	73	906	19	111	126	1590	84	750	
Other:	98	2025	250	3767	33	188	2412	182	3604	31	474	761	12052	379	6139	
Grand Total	497	22108	985	104348	220	768	16722	1027	13560	259	5720	2162	44680	1516	26005	

A—No. of factories

B—No. of Employment

APPENDIX 6.4 (Contd.)
District-wise Distribution of Working Factories and Employment in Kerala for the year ending 31-12-1987 (Provisional)

(1)	Palghat		Malappuram		Kozhikode		Cannanore		Wayanad		Kasaragod		Total	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
1. Oil.	15	122	8	34	43	350	24	111	2	17	..	..	322	2286
2. Tea	3	207	..	..	..	..	..	..	19	879	..	..	110	5733
3. Cashew	..	..	..	..	2	501	4	976	..	..	..	..	264	107197
4. Cotton Textiles	17	1591	6	987	51	1912	392	8244	..	..	1	57	535	23197
5. Coir	..	..	11	107	28	452	13	135	..	..	1	9	287	3811
6. Plywood, Splints & Veneers	95	1406	33	450	98	1041	56	1986	..	..	..	..	528	9647
7. Saw Mill	197	754	178	850	185	1396	147	1122	12	66	1	12	1581	8611
8. Printing and Publishing	48	524	28	167	86	1438	69	412	9	38	..	..	825	9954
9. Rubber & Rubber products	50	314	68	526	84	518	91	365	4	46	..	..	1082	12473
10. Chemical and Chemical products	37	596	15	913	35	565	25	270	2	11	..	..	313	14940
11. Matches	26	324	9	83	23	167	8	84	..	..	..	..	156	1790
12. Soap	2	12	4	31	13	676	1	20	..	..	..	..	42	2162
13. Tiles	11	491	11	556	34	3171	10	778	1	27	..	..	357	12169
14. General Engineering	244	3887	56	691	205	2104	159	1503	7	33	..	..	1802	29076
15. Automobiles	53	304	41	502	144	1540	112	669	9	33	..	..	784	10860
Others	459	4224	131	871	418	6027	253	2898	11	208	2	29	3196	45731
Grand Total	1257	14756	599	6768	1449	21798	1364	19573	76	1358	5	107	12184	299637

A—No. of factories
 B—No. of Employment.

APPENDIX 6.5

Details of Purchase and Sale of Materials by the Kerala State Industrial Products Trading Corporation Ltd.

(Figures in M.T.)

SLNo.	Material	Purchase		Sales	
		1986-87	1987-88	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)
1.	Titanium Dioxide	9704.86	11246.47	9704.88	11246.47
2.	Potassium Titanate	10.95	12.45	10.95	12.45
3.	Sodium Titanate	0.40	1.25	0.40	1.25
4.	White Cement (Direct Sale)	..	40.00	..	40.00
5.	White Cement (Stockists)	..	9999.25	..	9999.25

Source: Kerala State Industrial Products Trading Corporation Ltd.

APPENDIX 6.6

Capital Invested and Employment in respect of Government Owned Companies in Kerala

Name of Company	Capital Invested (Rs. lakhs)		Employment (Nos.)		
	As on 31st March 1987	As on 31st March 1988	As on 31st March 1987	As on 31st March 1988	
(1)	(2)	(3)	(4)	(5)	
1. The Kerala Ceramics Limited	1101.53	1322.17	592	576	
2. Kerala Soaps and Oils Ltd	927.86	1046.52	672	649	
3. Travancore Plywood Industries Limited	252.72	230.68	631	610	
4. Kerala Electrical and Allied Engineering Company Limited	626.77	662.67	995	971	
5. Kerala State Drugs and Pharmaceuticals Limited	1312.06	1430.40	501	501	
6. Kerala State Detergents and Chemicals Limited	674.21	757.04	253	249	
7. Kerala State Silicates and Chemicals Limited	863.50	1132.51	28	28	
8. Autokaat Limited	406.00	406.00*	402	402*	
9. Steel Industrial Kerala Limited	1312.03	1710.99	280	292	
10. Steel and Industrial Forgings Limited	758.06	785.28	137	151	
11. Kerala Minerals and Metals Limited	12125.21	13414.92	1168	1145	
12. Malabar Cements Limited	5548.12	6351.63	735	793	
13. Trivandrum Spinning Mills Limited	340.11	446.50	541	530	
14. Sitaram Textiles Limited	993.43	1116.84	956	793	
15. Kerala Agro-Machinery Corporation Limited	314.25	250.53	343	347	
16. Scouters Kerala Limited	206.56	280.66	106	85	
17. Astral Watches Limited	14.80	14.80*	108	108*	
18. Kerala Automobiles Limited	736.58	942.00	308	306	
19. Kerala Premopipe Factory Limited	177.22	177.22*	298	298	
20. Kerala Clays and Ceramic Products Limited	27.31	27.31*	406	534	
21. Kerala State Wood Industries Limited	540.00	697.90	167	173	
22. Meat Products of India Limited	145.97	154.62	97	99	
23. Trivandrum Rubber Works Limited	908.70	651.25	433	419	
24. Kerala State Engineering Works Limited					
25. Form Mattings (India) Ltd.					
		Under orders of liquidation			
		Under lock-out			
Total		30313.00	34010.44	10157	9999

*retained last year's figure.

APPENDIX - 6.7

Performance of Government Owned Companies in terms of Value of Production and Sales Turnover 1986-87 and 1987-88

(Rs. in lakhs)

Name of Company	Value of Production		Sales Turnover	
	1986-87	1987-88	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)
<i>K. S. I. E. Group:</i>				
1. Kerala Ceramics Limited	41.00	60.00	51.00	61.00
2. Kerala Soaps and Oils Limited	776.00	480.00	763.00	438.00
3. Travancore Plywood Industries Limited	191.00	291.67	216.00	289.99
4. Kerala Electrical and Allied Engineering Company Limited	1148.00	1037.00	1167.00	1034.00
5. Kerala State Drugs and Pharmaceuticals Limited	736.00	772.00	1243.00	1135.00
6. Kerala State Detergents and Chemicals Limited	15.00	12.00	31.00	13.00
7. Kerala State Salicylates and Chemicals Limited	Under implementation			
<i>Iron and Steel:</i>				
8. Autokast Limited	361.11	NA	332.88	NA
9. Steel Industrials Kerala Limited	719.49	NA	727.63	771.75
10. Steel and Industrial Forgings Limited	201.61	247.96	195.59	187.38
<i>Chemical:</i>				
11. Kerala Minerals and Metals Limited	2197.83	3237.19	2149.22	3126.01
12. Malabar Cements Limited	2376.40	3574.28	3055.17	4868.15
13. Trivandrum Rubber Works Limited	153.35	NA	153.35	NA
<i>Textiles:</i>				
14. Trivandrum Spinning Mills Limited	254.68	259.82	236.56	249.84
15. Sitaram Textiles Limited	NA	NA	NA	NA
<i>Engineering:</i>				
16. Kerala Agro Machinery Corporation Limited	497.00	671.84	597.31	931.39
17. Scooters Kerala Limited	39.72	25.38	38.85	22.77
18. Astral Watches Limited	24.30	NA	24.30	NA
19. Kerala Automobiles Limited	388.41	110.31	224.00	139.00
<i>Ceramics and Refractories:</i>				
20. Kerala Premopipe Factory Limited	69.00	NA	118.70	NA
21. Kerala Clays and Ceramic Products Limited	51.77	NA	57.09	70.45
<i>Wood based Industries:</i>				
22. Kerala State Wood Industries Limited	90.33	181.38	113.80	174.14
<i>Agro based Industries:</i>				
23. Meat Products of India Limited	52.62	51.40	52.62	49.89

APPENDIX 6.8

Installed Capacity and Capacity Utilisation of the Government owned companies during 1986-87 and 1987-88

Name of Company	Name of product	Unit	Installed Capacity		Production		Capacity Utilisation (in percentage)		
			1986-87	1987-88	1986-87	1987-88	1986-87	1987-88	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1. Kerala Ceramics Limited	(i) Porcelain	MT	NA	NA	NA	..	..	..
	(ii) Kaolin	"	..	..	..	..	..	..
	(iii) China Clay	"	..	..	..	..	..	..
2. Kerala Soaps and Oils Limited	(i) Soaps	"	9,000	9000	4579	2460	50.88	27.33	
	(ii) Glycerine	"	260	260	65	16	25.00	6.15	
	(iii) Shark Liver Oil Products	"	300	300	34	19	11.33	6.33	
	(iv) Vanaspati, Refined Oil	"	3,000	3000	291	151	9.70	5.03	
3. Travancore Plywood Industries Limited	Plywood and Allied products	Lakh sq. metres (4 mm basis)	27.38	27.38	4.68	6.83	17.09	24.95	
4. Kerala Electrical and Allied Engineering Company Limited	(i) Distribution transformers	KVA	1,20,000	1,20,000	1,31,107	1,88,236	109.26	73.53	
	(ii) C. I. Specials	MT	1500	1500	362	113	24.15	7.53	
	(iii) Steel Structures	"	1,200	1200	399	324	33.25	27.00	
	(iv) Galvanised structures	"	6000	6000	634	723	10.57	12.05	
	(v) Brushless Alternators	Nos.	1500	1500	1149	1235	76.60	82.3	
	(vi) H R C Fuses	"	1,20,000	..	359	..	0.30	..	
	(vii) Electrical Wiring Accessories	"	1,33,000	1,33,000	1,25,173	1,21,204	94.12	91.13	
5. Kerala State Drugs and Pharmaceuticals Limited	(i) Tablets	Lakh Nos.	2514	2514	3971	3662	157.96	145.66	
	(ii) Granules	Kg.	20,000	20,000	7096	599	35.48	3.00	
	(iii) Powders	Lakh Kg.	..	..	82,568	46,0277	..	..
	(iv) Capsules	Lakh Nos.	149	149	108	114	72.48	76.51	
	(v) Liquids	Lakh Litres	2.25	2.25	2.21	1.91	98.22	34.88	
	(vi) Injectibles								
	(a) Bottles	Lakh Nos.	4.50	4.50	9.12	8.11	202.67	180.22	
	(b) Vials	"	15.00	15.00	7.63	9.73	50.87	64.87	
	(c) Ampoules	"	60.00	60.00	33.42	19.18	55.70	31.97	
	(vii) Vitamin A	MMU	30.00	30.00	7.74	9.41	25.80	31.37	
6. Kerala State Detergents and Chemicals Limited	Synthetic Detergents								
	(i) Cake/Bar	M. T.	N.A.	9000	NA	18	..	0.20	
	(ii) Spray Dried Powder	"	..	10800	..	..	..	..
7. Autokast Limited	(iii) High Density Powder	"	..	1800	..	72	..	4.00	
	Heavy ferrous and non-ferrous castings		M.T.	..	..	1129	..	..
8. Steel Industrials Kerala Limited	(i) Fabricated steel structurals	"	3000	NA	2167	NA	72.23	..	
	(ii) Ferrous scrap	"	10,000	NA	6796	..	67.96	..	
9. Steel and Industrial Forgings Limited	Forgings		"	4250	4250	1080	1140	25.41	26.82
10. Kerala Minerals and Metals Limited	(i) Titanium Dioxide	"	22,000	22,000	4646	6860	21.12	31.18	
	(ii) Ilmenite,	}	..	29740	29740	19804	14699	66.59	49.43
	(iii) Rutile								
	(iv) Zircon								
	(v) Leucoxene								
	(vi) Monazite								

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. Malabar Cements Limited	Portland Cement	Lakh tonnes	4.20	4.20	2.76	3.83	65.71	91.19
12. Trivandrum Spinning Mills, Limited	Cotton Yarn	Lakh Kg.	25200	25200	4.94	4.86	..	..
			spindles 800	spindles 800				
			double spindles	double spindles				
13. Sitaram Textiles Limited	(i) Cotton yarn	Lakh Kg.	12064	NA	NA	NA	..	..
			spindles					
	(ii) Cotton fabrics	Lakh metres	336 looms	NA	..	NA	..	..
14. Kerala Agro Machinery Corporation Limited	Power Tillers	Nos.	3000	3000	1400	2100	46.67	70.00
15. Meat Products of India Limited	Meat & Meat products	MT	NA	300	NA	168	..	56.00
	Cattle Feed	"	..	..	..	441	..	..
16. Scooters Kerala Limited	Scooters (Assembly)	Nos.	NA	NA	NA	NA	..	..
17. Astral Watches Limited	Watches (Assembly)	Lakh Nos.	NA	NA	NA	NA	..	..
18. Kerala Automobiles Limited	Three wheelers	Nos.	3000	3000	1001	582	33.37	19.40
19. Kerala Premopipe Factory Ltd.	Cement concrete pipes and collars	Nos.	Not assessed	NA	6377	NA	..	..
20. Kerala Clays and Ceramic Products Limited	China clay	MT	NA	NA	9875	11393	..	..
21. Kerala State Wood Industries Limited	(i) Veneers	Lakh sq. Mtrs	30.00	37.50	0.87	1.15	2.90	3.07
	(ii) Doors, windows etc.	Nos.	82500	1,00,000	6659	9460	8.07	9.46
	(iii) Sawn sizes	cub mtrs	..	..	1668	1321	..	..

APPENDIX 6.9

Capital Invested and Employment in respect of Government Majority Companies in Kerala

Name of Company ¹	Capital Invested (Rs. in lakhs)		Employment (Numbers)	
	As on 31-3-1987	As on 31-3-1988	As on 31-3-1987	As on 31-3-1988
(1)	(2)	(3)	(4)	(5)
1. Keltron Counters Limited	521.39	544.22	308	308
2. Keltron Electro Ceramics Ltd.	202.33	226.40	101	100
3. Keltron Crystals Limited	212.27	217.36	123	129
4. Keltron Magnetics Limited	55.46	55.67	32	33
5. Keltron Resistors Limited	194.36	214.01	50	50
6. Keltron Power Devices Ltd.	609.66	769.24	182	158
7. Keltron Rectifiers Limited	475.24	533.76	114	116
8. Keltron Component Complex Ltd.	630.48	688.38	364	360
9. SIDKEL Televisions Ltd.	33.37	36.00	85	88
10. Steel Complex Ltd.	356.78	356.78	646	646
11. Metal Industries Ltd.	41.75	41.75*	127	136
12. Travancore Titanium Products Ltd.	554.25	554.25*	1457	1457*
13. Travancore Cochin Chemicals Ltd.	1147.51	1085.00	1207	1193
14. Travancore Cements Limited	50.00	50.00	521	545
15. Metropolitan Engineering Company Ltd.	101.87	101.87	179	155
16. United Electrical Industries Ltd.	301.58	344.37	536	527
17. Traco Cable Company Limited	433.06	1535.58	284	236
18. Transformers and Electricals Kerala Limited	2469.05	3403.74	1554	1558
19. Kerala Construction Components Limited	46.81	46.81*	121	120
20. Chalakudy Refractories Ltd.	249.21	350.76	138	136
21. Travancore Sugars and Chemicals Limited	51.00	52.26	567	608
22. Forest Industries (Travancore) Ltd.	31.27	35.91	144	141
Total	8768.70	11244.12	8840	8800

Retained last year's figure

APPENDIX 6.10

Performance of Government Majority Companies in terms of Value of Production and Sales Turn over 1986-87 and 1987-88

(Amount Rs. in lakhs)

Name of Company (1)	Value of Production		Sales Turnover	
	1986-87 (2)	1987-88 (3)	1986-87 (4)	1987-88 (5)
<i>Electronics</i>				
1. Keltron Counters Limited	238.84	226.98	286.96	256.39
2. Keltron Electro Ceramics Ltd.	53.76	105.39	55.50	113.76
3. Keltron Crystals Limited	86.98	99.29	93.69	107.08
4. Keltron Magnetics Limited	55.19	53.49	73.99	67.62
5. Keltron Resistors Limited	27.47	29.52	24.64	32.34
6. Keltron Power Devices Ltd.	131.52	95.27	119.25	115.98
7. Keltron Rectifiers Limited	69.10	72.86	69.90	67.15
8. Keltron Component Complex Ltd.	586.72	730.18	610.68	811.45
9. SIDKEL Televisions Ltd.	180.63	185.94	197.60	227.98
<i>Iron and Steel</i>				
10. Steel Complex Ltd.	1841.48	NA	2388.96	NA
11. Metal Industries Ltd.	55.00	54.00	68.91	64.72
<i>Chemicals</i>				
12. Travancore Titanium Products Ltd.	2549.56	NA	2583.48	NA
13. Travancore Cochin Chemicals Ltd.	1552.00	1814.40	1538.28	2195.36
14. Travancore Cements Ltd.	769.39	742.56	771.17	739.78
<i>Electrical and Cables</i>				
15. Metropolitan Engineering Company Ltd.	Nil	Nil	Nil	Nil
16. United Electrical Industries Ltd.	195.38	216.54	194.22	221.36
17. Traco Cable Company Ltd.	320.00	NA	320.00	NA
18. Transformers and Electricals Kerala Ltd.	1775.14	NA	1775.14	NA
<i>Ceramics and Refractories</i>				
19. Kerala Construction Components Ltd.	49.81	NA	32.57	NA
20. Chalakudy Refractories Ltd.	12.00	3.27	11.61	5.15
<i>Agro-based Industries</i>				
21. Travancore Sugars and Chemicals Ltd.	481.77	573.86	482.44	576.63
<i>Wood-based Industries</i>				
22. Forest Industries (Travancore) Ltd.	55.00	59.38	59.68	63.88

APPENDIX 6.11

Installed Capacity and Capacity Utilisation of the Government Majority Companies in Kerala 1986-87 and 1987-88

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation (in percentage)	
			1986-87	1987-88	1986-87	1987-88	1986-87	1987-88
(1)	(2)		(4)	(5)	(6)	(7)	(8)	(9)
1. Keltron Counters Ltd.	Counting devices, Registering Mechanisms and Electronic products	No.	Not fixed	Not fixed	2,62,000	2,43,696	..	..
2. Keltron Electro Ceramics Limited	Ceramic Capacitors	Million pieces	50	50	1.92	40	3.84	80.00
	Thermistors	"	..	1.5	..	0.668 lakh.	..	4.45
3. Keltron Crystals Ltd.	(i) Communication crystals and watch crystals	Lakh No.	20.84	20.84	11.84	16.53	56.81	73.32
	(ii) Digital Electronic Watches	No.	45,000	45,000	14,792	24,581	32.87	54.62
4. Keltron Magnetics Ltd.	(i) Colour T.V. Relay lines	Lakhs Nos.	27.5	27.5	0.07	0.15	0.03	0.55
	(ii) Servo controlled voltage stabilizer	Nos.	..	5000	..	1487	..	29.74
5. Keltron Resistors Ltd.	(i) Carbon and Metal Film Resistors	Million Nos.	142	142	41.52	42.11	29.24	29.65
6. Keltron Power Devices Ltd.	Semi conductor Devices (Power Transistors)	Lakh No.	10	10	11.16	7.82	111.60	78.20
7. Keltron Rectifiers Ltd.	(i) Silicon Power Rectifiers and Diodes below 30 AMP	No.	3,00,000	3,00,000	1,37,104	1,68,000	45.70	56.00
	(ii) Silicon Power Rectifiers, and Diodes above 30 AMP	No.	20,000	20,000	46,125	35,000	230.63	175.00
	(iii) Traction and Industrial Electronic Rectifier Power Supply	Nos.	..	50	..	8	..	16.00
8. Keltron Component Complex Ltd.	Aluminium Electrolytic capacitors	Million Nos.	60	60	45.10	51.13	75.17	85.22
9. SIDKEL Televisions Ltd.	Television sets	Nos.	20,000	20,000	7620	10011	38.10	50.06
10. Steel Complex Ltd.	Steel Billets	Tonnes	55,000	NA.	41148	NA.	74.81	..
11. Metal Industries Ltd.	Agricultural Implements	M.T.	300	250	380	375	126.67	150.00
12. Travancore Titanium Products Limited	Titanium Dioxide	M.T.	24,000	N.A.	9749	N.A.	39.79	..
13. Travancore Cochin Chemicals Ltd.	(i) Caustic Soda	M.T.	59400	52800	27449	30019	46.21	56.85
	(ii) Sodium sulphate	M.T.	2100	..	227	..	10.81	..
	(iii) Hydro sulphate of soda	M.T.	2100	..	..	..	..	..
	(iv) Chlorine	M.T.	52272	46464	24155	26417	46.21	56.85
14. Travancore Cements Ltd.	(i) White Cement	Tonnes	N.A.	30,000	..	33042	..	110.14
	(ii) Grey Cement	"	"	..	..	..	..	..
	(iii) Cement Paint	"	"	600	..	927	..	154.5
15. Metropolitan Engineering Co., Ltd.	Switches, Fuses, Fire Extinguishers etc.	Nos.	..	..	..	..	..	..
16. United Electrical Industries Ltd.	(i) K.W.H. Meters	Nos.	2,50,000	2,50,000	1,18,587	1,27,649	47.43	51.06
	(ii) Motor Control Gears	Nos.	4500	4500	1587	1210	35.27	26.89
	(iii) L.T. Switch gears	"	600	600	3	12	0.50	2.00
	(iv) 11 KV switch Gears	"	Not fixed	..	..	..	..	..
	(v) Plastic Film Capacitors	Million Nos.	15	15	2.35	1.63	15.67	10.87
	(vi) Carbon Film Resistors	Nos.	50	50	0.41	0.20	0.82	0.40
	(vii) Other products	Nos.	Not fixed	Not fixed	258	593	..	..

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. Troco Cable Company Ltd.	(i)	A.A.C. and A.G.S.R.	M.T.	N.A.	N.A.	N.A.	N.A.	..	..
	(ii)	P.V.C. covered conductors and bare copper conductors	Million core Metres	"	"	"	"	..	..
	(iii)	Telephone cables	L.K.M.	"	"	"	"	..	..
18. Transformers and Electricals Kerala Ltd.	(i)	Power Transformers	M.V.A.	4500	"	2461	"	54.69	..
	(ii)	Current and potential Transformers	No.	1000	"	44.4	"	44.40	..
	(iii)	Circuit Breakers	No.	Not fixed	"	64	"	..	..
	(iv)	Gas Circuit Breakers	"	100	"	17	"	17.00	..
	(v)	Shunt Reactors	M.V.A.	500	"	54.5	"	10.90	..
	(vi)	Isolated phase bus ducts	Nos.	Not fixed	"	"	"	..	..
19. Kerala Construction Components Ltd.		Sandlime Bricks	Lakh Nos.	N.A.	"	N.A.	"	..	..
20. Chalakudy Refractories Ltd.		Refractory Items	MT.	Not fixed	Not fixed	602	218	..	..
21. Travancore Sugars & Chemicals Ltd.	(i)	Sugar	"	900 tonnes of cane/day	900 tonnes cane/day	1763 tonnes bagged	1728 tonnes bagged	..	..
	(ii)	Spirit	Lakh proof litres	46.53	46.53	28.95	20.29	62.22	43.64
22. Forest Industries (Travancore) Ltd.		Benches, desks, Black-board, Tables, doors etc.	Cu. M.	1500	1500	..	..	..	..

Appendix 6.12

*Capital Invested and Employment in Respect of Government of India Companies Functioning in Kerala,
1986-87 and 1987-88*

(1)	Capital Invested (Rs. in lakhs)		Persons Employed (Numbers)	
	As on 31-3-1987	As on 31-3-1988	As on 31-3-1987	As on 31-3-1988
(1)	(2)	(3)	(4)	(5)
1. Cochin Refineries Ltd., Cochin	21921.57	18000.37	980	1043
2. Cochin Shipyard Limited, Cochin	18312.60	20518.65	2201	2356
3. Fertilizers and Chemicals Travancore Ltd., Alwaye	28844.82	36581.00	8006	8216
4. Hindustan Latex Limited, Trivandrum	2413.02	2472.65	913	1304
5. Hindustan Newsprint Ltd., Mavelloor, Kottayam	14050.00	14160.29	1721	1704
6. Indian Rare Earths Ltd.				
(a) Rare Earths Division, Alwaye	N.A.	N.A.	593	593*
(b) Minerals Division, Chavara	N.A.	N.A.	1076	1093
7. Indian Telephone Industries Ltd., Kanjikode, Palghat	Separate figure not available.	N.A.	367	367*
8. Hindustan Insecticides Limited, Alwaye	N.A.	N.A.	872	863
9. Instrumentation Limited, Kanjikode, Palghat	Separate figures not available	N.A.	436	443
10. Modern Food Industries (India) Limited, Edappally, Cochin	..	N.A.	206	206
11. H.M.T. Limited, Kalamassery, Alwaye	N.A.	1845.17	3073	3025
12. Balmar Lawrie and Co. Ltd., Aroor	..	N.A.	287	286
13. Hindustan Organic Chemicals Ltd.	Separate figures not available		201	350
14. Cannanore Spinning and Weaving Mills	..	388.31	572	542
15. Vijayamohini Mills	N.A.	448.25	N.A.	639
16. Alagappa Textiles (Cochin) Mills	549.52	639.31	1232	1020

* Retained Previous Year's Figure.

Appendix 6.13

Performance of Government of India Companies Functioning in Kerala in Terms of Value of Production and Sales Turnover, 1986-87 and 1987-88

(Rs. in lakhs)

Name of company (1)	Value of Production		Sales Turnover		Export	
	1986-87 (2)	1987-88 (3)	1986-87 (4)	1987-88 (5)	1986-87 (6)	1987-88 (7)
1. Cochin Refineries Ltd., Cochin	81353.26	101816.25	81602.12	103211.00	..	..
2. Cochin Shipyard Ltd., Cochin	2982.89	3036.58	894.52	4452.62	..	..
3. Fertilisers and Chemical Travancore Ltd., Udyogamandal and Cochin	36742.71	36260.24	34585.00	38423.00	..	..
4. Hindustan Latex Ltd., Trivandrum	727.45	811.97	1129.28	1448.77	..	..
5. Hindustan Insecticides Ltd., Alwaye	1297.20	1084.43	583.53	628.56	..	..
6. Hindustan Newsprint Ltd., Kottayam	6143.00	7482.11	6063.00	7210.44	..	..
7. Indian Rare Earths Ltd.						
(a) Rare Earths Division, Alwaye	756.10	N.A.	977.04	N.A.	652.84	N.A.
(b) Minerals Division, Chavara	1177.68	1169.82	1243.73	1107.91	535.55	402.78
8. Instrumentation Ltd., Palghat	1131.05	1220.20	1633.79	1720.04	1.07	28.19
9. Modern Food Industries (India) Limited, Cochin	451.60	554.10	451.60	554.10	..	..
10. Indian Telephone Industries Limited, Palghat	N.A.	N.A.	N.A.	N.A.	..	..
11. H.M.T. Limited, Kalamasserry	2782.31	3589.29	3607.00	3327.90	369.00	531.22
12. Balmer Lawrie and Co., Ltd., Aroor	823.52	401.84	843.78	430.44	126.01	266.55
13. Hindustan Organic Chemicals Limited, Udyogamandal	N.A.	1420.11	N.A.	1420.11	..	..
14. Cannanore Spinning & Weaving Mills	..	506.07	..	485.26	..	..
15. Vijayamohini Mills	N.A.	447.25	N.A.	396.66	N.A.	..
16. Alagappa Textiles (Cochin) Mills	698.02	609.03	742.32	735.15	..	..

Government of India Companies Functioning in Kerala—Main Features

(Amount in Rs. lakhs)

Sl. No.	Name of Company	(3)	(4)	(5)	(6)	Loans availed during 1987-88		Gross Block		Net fixed Assets as on 31-3-1988	Value of Major Raw materials consumed during 1987-88	Net Profit (+) Net Loss (-)			
						(7)	(8)	(9)	(10)			(11)	(12)	(13)	(14)
				Share of Government and Public Sector Financing 31-3-1988	Total Loans outstanding and Interest accrued as on 31-3-1988	From Government of India	From others	As on 31-9-1987	As on 31-3-1988			1986-87	1987-88		
1.	Cochin Refineries Ltd., Cochin	700.00	1000.38	769.53	37002.98	19.00	3157.00	21687.98	22774.08	18639.83	93991.75	(+)	709.02	(+)	1953.97
2.	Cochin Shipyard Ltd., Cochin	6396.00	6893.00	6893.00	14269.45	802.00	..	10845.83	10901.46	8121.26	537.50	(-)	1021.04	(-)	2585.82
3.	Fertilisers and Chemicals Travancore Ltd., Alwaye	25677.20	29677.20	29598.00	6904.00	4200.00	..	19614.90	21042.00	26756.44	14820.00	(+)	4145.00	(+)	1290.00
4.	Hindustan Latex Ltd., Trivandrum	1248.00	1257.50	1257.50	1998.35	12.50	..	2675.23	2764.28	2075.54	248.29	(+)	53.40	(+)	193.87
5.	Hindustan Newsprint Limited, Mavelloor, Kottayam	8157.99	8156.99	8157.99	6602.99	..	..	15888.17	16020.39	9269.31	2157.63	(-)	492.85	(-)	174.98
6.	Indian Rare Earths Ltd.														
	(i) Rare Earths Division, Alwaye							NA	N.A.	N.A.	N.A.	(+)	697.90	N.A.	
	(ii) Mineral Division Chavara							N.A.	712.04	417.63	154.06	(+)	444.73	(+)	408.21
7.	Hindustan Insecticides Ltd.									2141.31	587.49	(-)	1.34	(-)	26.96
8.	Instrumentation Ltd., Palghat							449.11	662.28	404.74	656.99	(+)	100.82	(+)	256.19
9.	Modern Food Industries (India) Ltd.							Nil	154.7	63.60	293.84	(+)	53.00	(+)	167.70
10.	Indian Telephone Industries Ltd							N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
11.	H.M.T. Ltd., Kalamassery							20.00	2326.36	916.64	1710.60	(+)	18.00	(+)	19.62
12.	Balmer Lawrie & Co., Ltd., Aroor										240.35	(+)	121.82	(-)	86.03
13.	Hindustan Organic Chemicals Ltd.							Nil	N.A.	N.A.	1921.00	N.A.	N.A.	(+)	43.16
14.	Cannanore Spinning & Weaving Mills Ltd.							41.72	141.06	60.18	269.34	(-)	37.08	(-)	2.39
15.	Vijayamohini Mills							57.55	258.20	153.86	244.84	N.A.	N.A.	(-)	25.78
16.	Alagappa Textiles (Cochin) Mills	153.84	372.18	372.18	379.83	..	..	N.A.	555.03	306.80	453.67	(-)	119.40	(-)	93.38

Appendix 6.15

Production and Capacity Utilisation of Government of India Companies Functioning in Kerala, 1986-87 and 1987-88.

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation (Percentage)	
			1986-87	1987-88	1986-87	1987-88	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Cochin Refineries Limited	Petroleum Products	Million M.T.	4.50	4.50	4.17	4.11	92.67	91.33
2. Cochin Shipyard Limited	(i) Ocean Going Vessels	DWT	150000	150000	31200	28400	20.80	18.93
	(ii) Ship Repair	Lakh DRT		10	2.63	2.80	..	28.00
3. Fertilisers and Chemicals Travancore Limited								
(a) Udyogamandal	(i) Ammonium Sulphate	M.T.	1,98,000	1,98,000	107630	126921	54.36	64.10
	(ii) Ammonium Phosphate 20:20	..	148500	148500	139756	129504	94.11	87.21
	(iii) Ammonium Chloride	..	24750	24750	6612	4859	26.72	19.63
	(iv) Super Phosphate	..	44500	44500	13642	14544	30.66	29.38
	(v) Ammonia	..	112200	112200	72353	68135	64.49	60.73
	(vi) Sulphuric Acid	..	250800	250800	195005	215378	77.75	85.88
	(vii) Phosphoric Acid	..	33000	33000	8146	11452	24.68	34.70
	(viii) Cryolite	..	1650	1650	..	..	..	..
(d) Cochin Division	(i) Ammonia	..	198000	198000	114000	100485	57.58	50.75
	(ii) Sulphuric Acid	..	330000	330000	260180	305870	78.84	92.69
	(iii) Phosphoric Acid	..	115000	115000	34405	54200	29.92	47.13
	(iv) Urea	..	330000	330000	230074	193437	69.72	58.62
	(v) N.P.K. Fertilisers	..	485000	485000	402608	424366	83.01	87.50
4. Hindustan Latex Limited	Contraceptive Condoms	Million Pieces	448	448	357.58	392.07	79.82	87.52
5. Hindustan Newsprint Ltd.	Newsprint	M.T.	80000	80000	68557	81513	85.70	101.89
6. Indian Rare Earths Limited:								
(a) Alwaye Division	(i) Rare Earths Chloride	..	5000	NA	3967	NA	79.34	..
	(ii) Trisodium Phosphate	..	5600	NA	5286	NA	94.39	..
	(iii) Rare Earths Fluoride	..	190	NA	221	NA	122.78	..
	(iv) Rare Earths Oxide	..	60	NA	43	NA	71.67	..
(b) Chavara Division	(i) Ilmenite	..	144000	144000	74690	80711	51.87	56.05
	(ii) Monazite	..	240	240	29	168	12.08	70.00
	(iii) Zircon	..	8460	8460	5457	5394	64.50	63.76
	(iv) Rutile	..	7200	7200	5151	4375	71.54	60.76
	(v) Silliminite	..	1600	1600	1849	1855	115.56	115.56
	(vi) Zirfloor	..	7200	7200	3685	3311	51.56	45.59

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. Hindustan Insecticides Ltd. Udyogamandal, Alwaye	(i) Technical DDT	Tonnes	1344	1344	1011	1158	75.22	86.16
	(ii) Formulated DDT	"	2688	2688	1951	1609	72.58	59.86
	(iii) Technical BHC	"	3000	3000	1555	1575	51.83	52.50
	(iv) Formulated BHC	"	3000	3000	2952	2361	98.40	78.70
	(v) Endosulfan	"	800	800	62	310	7.75	38.73
	(vi) Hildan 35 EC	Kilo litre	1910	1910	288	448	15.08	23.45
	(vii) Hildit 25 EC							
	(viii) Hilthion 50EC							
	(ix) Plantawax 20EC							
8. Instrumentation Limited, Kanjikode, Palghat.	(i) Process Control valves	Nos.	..	..	2395	2197	..	..
	(ii) Safety Relief valves and Pressure reducing valves	"	..	..	433	490	..	..
	(iii) Miscellaneous items and accessories	"	..	..	2747	3811	..	..
	(iv) Orifice plate/flow measuring devices	"	..	..	356	211	..	..
9. Modern Food Industries (India) Ltd., Edappally, Cochin.	(i) Modern Bread	Lakh Nos. of 400 grms	218.32	218.32	199.50	233.27	91.38	106.85
	(ii) Modern Bun	Lakh No. of 59 grams.						
10. Indian Telephone Industries Ltd., Kanjikode, Palghat.	Electronic Switching Equipment	Lines	NA	NA	NA	NA	..	..
11. HMT Limited, Kalamassery	(i) Machine Tools	Nos.	476	455	434	458	91.18	100.66
	(ii) Printing Machines	Nos.	69	71	72	75	104.35	105.63
12. Balmer Lawrie and Co. Ltd., Aroor	Marine Freight and Special containers	"	1800	3600	965	998	53.61	27.72
13. Hindustan Organic Chemicals Ltd.,	Phenol	Tonnes	..	1000	..	2023	..	5.06
	Acetone	"	..	24640	..	1265	..	5.13
14. Cannanore Spinning and Weaving Mills	Cotton Yarn	Lakh Kg.	..	24800	..	11.59	..	..
15. Vijayamohini Mills	"	"	NA	30476	NA	8.47	..	..
16. Alagappa Textiles (Cochin) Mills	Cotton Yarn	Lakh Kg.	..	..	170.11	13.01	..	..

APPENDIX 6.16

District-wise details of new Small Scale Units Registered in Kerala During 1987-88

District	Number of SSI Units Registered during 1987-88				Estimated Investment (Rs. lakhs)	Employment (No. of workers)
	Total	Units promoted by				
		S.C.	S.T.	Women		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trivandrum	735	16	..	165	1014.00	3675
2. Quilon	742	16	..	120	1025.00	3710
3. Pathanamthitta	647	7	..	42	892.00	3235
4. Alleppey	303	17	..	24	418.00	1515
5. Kottayam	594	11	1	24	820.00	2970
6. Idukki	240	13	5	56	330.00	1200
7. Ernakulam	771	16	..	34	1063.00	3855
8. Trichur	637	13	1	23	880.00	3185
9. Palghat	576	5	4	6	995.00	2880
10. Malappuram	352	9	..	36	485.00	1760
11. Kozhikode	455	2	..	60	628.00	2275
12. Wayanad	98	..	..	35	135.00	4490
13. Cannanore	516	5	..	53	712.00	2880
14. Kasargod	183	..	1	12	252.00	915
State—Total	6849	130	12	690	9449.00	38245
	(100.00)	(1.89)	(0.17)	(10.07)		

Note: Figures in brackets indicate the percentage to total.

Source: Directorate of Industries & Commerce.

APPENDIX—6.17

District-wise Details of Registered Small Scale Units in Kerala as on 31st March, 1988

District	Number of SSI Units as on 31st March, 1988				Estimated Investment (Rs. lakhs)	Employment No. of workers
	Total	Units promoted by				
		S.C.	S.T.	Women		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trivandrum	4514	47	..	432	6229.00	22570
2. Quilon	4828	276	10	470	6662.00	24140
3. Pathanamthitta	662	33	..	94	913.00	3310
4. Alleppey	4287	79	3	273	5916.00	21435
5. Kottayam	4266	69	7	272	5887.00	21330
6. Idukki	1095	63	16	167	1511.00	5475
7. Ernakulam	6298	139	2	354	8691.00	31490
8. Trichur	5171	177	2	279	7135.00	23855
9. Palghat	3133	40	5	20	4323.00	15665
10. Malappuram	2743	80	1	222	3785.00	13715
11. Kozhikode	3978	121	1	173	5489.00	19890
12. Wayanad	560	10	11	88	772.00	2800
13. Cannanore	5196	113	..	203	7170.00	25980
14. Kasargod	460	9	3	46	634.00	2300
State (Total)	47191	1256	61	3093	65117.00	235955
	(100.00)	(2.16)	(0.13)	(6.55)		

Note: Figures in brackets indicate percentag to totale.

Source: Directorate of Industries and Commerce.

APPENDIX 6.18

Working Status of Small Scale Units in Kerala

District	Working Status as on 31-3-1988						
	Total No. of SSI Units	Sick Units	Closed Units	Sick and closed units (3+4)	Units working Effectively (2-5)	% of Working Units	Units Revived by DICS during 1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Trivandrum	4514	235	892	1127	3387	75.03	32
2. Quilon	4828	172	363	535	4293	88.92	3
3. Pathanamthitta	662	47	99	146	516	77.94	..
4. Alleppey	4287	214	366	580	3707	86.47	1
5. Kottayam	4266	174	457	631	3635	85.21	12
6. Idukki	1095	56	128	184	911	83.20	3
7. Ernakulam	6298	290	732	1022	5276	83.77	..
8. Trichur	5171	249	711	960	4211	81.43	..
9. Palghat	3133	84	267	351	2782	88.80	3
10. Malappuram	2743	181	244	425	2318	84.51	..
11. Kozhikode	3978	196	337	533	3445	86.60	82
12. Wayanad	560	43	69	112	448	80.00	39
13. Cannanore	5196	202	531	733	4463	85.89	1
14. Kasargode	460	28	77	105	355	77.17	1
State—Total	47191 (100.00)	2117 (4.60)	5273 (11.17)	7444 (15.77)	39747 (84.23)	84.23	177

Note: Figures in brackets indicate percentage to total.

Source: Directorate of Industries and Commerce.

APPENDX 6.19

Entrepreneur Development Training (1986-87 and 1987-88)

District	Number of Entrepreneurs Trained						Trained Entrepreneurs who have started industries	
	General	Category	SC&ST		Total		1986-87	1987-88
	1986-87	1987-88	1986-87	1987-88	1986-87	1987-88		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Trivandrum	53	25	..	26	53	51	21(40)	12(24)
2. Quilon	30	54	..	..	30	54	2(7)	12(22)
3. Pathanamthitta	28	53	..	..	28	53	1(4)	13(25)
4. Alleppey	27	59	30	..	57	59	11(19)	11(17)
5. Kottayam	53	50	..	29	53	79	4(8)	12(15)
6. Idukki	28	28	21	..	49	28	7(14)	6(21)
7. Ernakulam	54	70	..	25	54	95	12(22)	20(21)
8. Trichur	50	28	27	..	77	28	15(19)	9(32)
9. Palghat	22	48	23	..	45	48	4(9)	14(29)
10. Malappuram	21	21	..	..	21	21	3(14)	4(19)
11. Kozhikode	45	20	..	24	45	44	9(20)	7(16)
12. Wayanad	25	..	..	..	25	..	2(8)	..
13. Cannanore	53	24	..	..	53	24	17(32)	3(12)
14. Kasaragod	17	25	..	..	17	25	3(18)	3(12)
State (Total)	506	505	101	104	607	609	111(18)	126(21)

Notes: Figures in brackets denote to percentage to total trained entrepreneurs.

Sources: Directorate of Industries and Commerce.

APPENDIX 6.20

Number of Artisan Units started in Kerala during 1987-88

Districts	Number of Units started										Grand Total
	Rural Areas					Urban Areas					
	SC	ST	Women	Others	Total	SC	ST	Women	Others	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Trivandrum	239 (214)	18 (32)	43 ..	59 (108)	359 (354)	2 ..	.. ..	2 ..	7 (6)	11 (6)	370 (360)
2. Quilon	11 (278)	.. ..	55 (70)	83 (71)	149 (419)	5 (10)	.. ..	11 ..	11 (21)	27 (31)	176 (450)
3. Pathanamthitta	.. (64)	.. (8)	.. (32)	.. (78)	.. (182)	.. ..	.. ..	.. ..	.. ..	.. ..	.. (182)
4. Alleppey	.. (61)	.. (8)	.. (42)	.. (29)	.. (140)	.. ..	.. ..	.. ..	.. ..	.. ..	.. (140)
5. Kottayam	.. (2)	.. ..	15 (8)	.. (49)	15 (59)	.. ..	.. ..	.. ..	6 ..	6 ..	21 (59)
6. Idukki	8 (60)	.. (22)	76 (212)	21 (209)	105 (504)	.. ..	.. ..	.. ..	.. ..	.. ..	105 (503)
7. Ernakulam	.. (19)	.. ..	4 (20)	21 (128)	25 (167)	.. ..	.. ..	2 ..	5 ..	7 ..	32 (167)
8. Trichur	1245 (1663)	16 ..	1020 (2125)	732 (629)	3013 (4417)	.. ..	.. ..	.. ..	.. ..	.. ..	3013 (4417)
9. Palghat	30 (1364)	2 (55)	20 (1480)	214 (525)	266 (3424)	12 ..	.. ..	20 ..	278 ..	310 ..	576 (3424)
10. Malappuram	14 (36)	1 ..	9 ..	68 (88)	92 (124)	.. ..	.. ..	.. ..	.. ..	.. ..	92 (124)
11. Kozhikode	.. ..	.. ..	5 (7)	43 (65)	48 (72)	.. ..	.. ..	.. ..	.. ..	.. ..	48 (72)
12. Wayanad	32 (65)	20 (95)	92 (98)	97 (201)	241 (459)	.. ..	.. ..	.. ..	.. ..	.. ..	241 (459)
13. Cannanore	.. (110)	35 (68)	1 (123)	20 (6)	56 (307)	.. ..	.. ..	.. ..	.. ..	.. ..	56 (307)
14. Kasargod	.. (48)	.. (15)	.. (20)	.. (135)	.. (218)	.. ..	.. ..	.. ..	.. ..	.. ..	.. (218)
State (Total)	1579 (1984)	92 (303)	1340 (4237)	1358 (2321)	4369 (10845)	19 (10)	.. ..	35 ..	307 (27)	361 (37)	4730 (10882)

Source: Directorate of Industries & Commerce.

Note: 1. Figures in brackets indicate the achievements during 1986-87.

2. Figures on number of units started in Pathanamthitta, Alleppey and Kasaragod during 1987-88 are not available.

APPENDIX 6.21

Comparative Statement of Achievements Under Self Employment Programme For 1986-87 and 1987-88

(Amount in Rs. Lakhs)

District	Number and Amount of Applications Sanctioned and Disbursed								Percentage of decrease during 1987-88			
	1986-87				1987-88				Sanction		Disbursement	
	Sanction		Disbursement		Sanction		Disbursement		Sanction		Disbursement	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Trivandrum	1646	323.18	1025	148.45	785	137.95	625	98.58	52	57	39	34
2. Quilon	1709	367.82	1300	191.57	855	179.10	379	67.31	50	51	71	65
3. Pathanamthitta	1025	356.52	577	102.51	515	115.38	405	81.20	50	67	30	21
4. Alleppey	1655	222.70	1008	208.22	644	139.43	467	96.92	61	37	54	53
5. Kottayam	1858	427.25	1384	227.61	831	164.68	464	80.86	55	61	66	64
6. Idukki	1015	207.95	525	74.10	470	85.19	352	58.06	54	59	33	22
7. Ernakulam	1961	401.16	836	174.02	1089	229.56	967	184.57	45	43	..	..
8. Trichur	1604	282.19	1239	189.97	1013	164.50	635	97.57	37	42	49	49
9. Palghat	1248	183.27	641	89.44	588	74.91	422	43.05	53	59	34	52
10. Malappuram	1210	236.73	641	99.08	455	83.78	268	50.89	62	61	58	49
11. Kozhikode	1370	283.60	698	108.40	717	141.57	425	77.01	48	50	39	29
12. Wayanad	481	71.62	346	43.24	198	25.84	129	14.14	59	64	63	67
13. Cannanore	1315	250.92	620	100.70	669	118.76	534	90.09	48	53	14	11
14. Kasaragod	918	190.74	616	109.92	578	98.31	325	50.58	37	48	47	54
State (Total)	19015	3805.65	11456	1867.23	9407	1758.96	6397	1090.83	54	54	44	42

Source: Directorate of Industries & Commerce.

Appendix 6.22

Industrial Co-operative Societies in Kerala as on 30-6-1987

District	Number of Industrial Co-operative Societies							
	Societies Registered during 1986-87	Total Number of Societies as on 30-6-1987						Total Number of Societies
		Beedi Co-operative Primary	Industrial Co-Society Central	Women's Industrial Co-operative Societies	Scheduled Caste Co-operative Societies	Scheduled Tribe Co-operative Societies	Societies by other than Scheduled Caste, Scheduled Tribe and Women	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Trivandrum	3	6	..	39	10	3	172	230
2. Quilon	4	2	..	25	4	1	120	152
3. Pathanamthitta	..	..	..	8	6	3	58	75
4. Alleppey	..	2	..	30	9	1	116	158
5. Kottayam	1	..	..	4	3	1	94	102
6. Idukki	2	2	..	10	1	2	25	40
7. Ernakulam	5	4	..	17	6	..	63	90
8. Palghat	5	3	1	11	15	4	57	91
9. Trichur	3	5	..	36	8	1	199	249
10. Malappuram	1	7	..	17	11	..	47	82
11. Kozhikode	..	13	..	10	4	..	64	91
12. Wayanad	6	..	..	7	2	9	4	22
13. Cannanore	4	15	1	24	15	1	76	132
14. Kasaragod	5	9	..	5	1	..	21	36
State—Total	39	68	2	243	95	26	1116	1550

Source:—Directorate of Industries and Commerce.

Appendix 6.23

Khadi and Village Industries

Production, Sales, Employment and Wages during 1987-88

Industry	Production value (Rs. lakhs)	Sales value (Rs. lakhs)	Employment				Wages (Rs. lakhs)			
			Full time	Part time	Casual	Total	Full time	Part time	Causal	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A. Khadi	246.50	400.85	14000	..	..	14000	..	..	..	109.89
B. Village Industries:										
1. Village Oil	1393.17	1467.84	1931	2076	..	4007	..	..	..	127.32
2. Village Pottery	601.95	613.80	14581	2545	..	17126	..	..	..	284.78
3. Fibre and Screwpine	303.94	399.47	59805	4021	..	3826	..	..	..	561.86
4. Carpentry and Black Smithy	386.49	307.27	3942	446	..	4388	..	..	..	396.24
5. Hand made paper	17.98	12.15	339	..	..	339	..	..	..	10.80
6. Curkhandsari	87.19	91.83	995	708	..	1703	..	..	..	26.65
7. Palmgur	180.43	183.00	453	22557	..	23010	..	..	..	25.23
8. Beekeeping	288.00	285.00	3105	16300	..	19405	..	..	..	..
9. Village leather	311.55	377.02	1188	769	..	1957	..	..	..	69.02
10. Lime	221.41	257.83	2844	890	..	3734	..	..	..	138.37
11. Non Edible oil and Soap	76.80	76.65	339	337	..	676	..	..	..	17.14
12. Cottage Match	191.67	205.49	1914	3531	..	5445	..	..	..	68.49
13. Cane & Bamboo	69.33	72.83	3497	2116	..	5613	..	..	..	69.72
14. Processing of cereals and pulses	241.77	268.63	3405	2773	..	6178	..	..	..	190.97
15. Medicinal plants	7.88	8.73	68	156	..	224	..	..	..	1.73
16. Fruit processing & Preservation	144.60	157.20	980	473	..	1453	..	..	..	17.21
17. Aluminium	61.56	47.60	242	93	..	335	..	..	..	12.27
18. Polivastra	Included in Khadi		18	..	..	18	..	..	..	0.54
19. Agarbathi	17.88	19.14	143	76	..	219	..	..	..	3.77
Total—(B)	4602.60	4851.48	99780	59867	..	159647	..	..	..	2022.11
Total—(A)+(B)	4819.10	5252.33	113780	59867	..	173647	..	..	..	2132.00

Source:—Khadi and Village Industries Board.

Appendix 6.24

Coir Co-operative Societies in Kerala

Type of Society	Number of Societies as on	
	31-3-1987	31-3-1988
(1)	(2)	(3)
I. Working Societies		
1. Primary Coir Co-operative Societies (in the Spinning Sector)	429	421
2. Manufacturing Societies	17	18
3. Small Scale Producers Co-operative Societies	6	6
4. Husk Procurement and Distribution Societies	2	2
5. Co-operative Coir Marketing Federation	1	1
6. Total Working Societies	455	448
II. New Societies Which Have not Started Working:		
1. Primary Societies	92	92
2. Manufacturing Societies	24	25
3. Others (Specify)	--	--
4. Total New Societies	116	117
III. Dormant Societies:		
1. Primary Societies	56	64
2. Manufacturing Societies	2	3
3. Fibre Societies	1	1
4. Total Dormant Societies	59	68
IV. Co-operative Societies Under Liquidation:		
1. Primary Societies		190
2. Manufacturing Societies	191	1
3. Husk Procurement and Distribution Society.		1
4. Total Societies Under Liquidation.	191	192

Source:—Directorate of Coir Development.

Appendix 6.25

Activities of the Coir Co-operative Societies

(a) Primary Coir Co-operative Societies

Year	No. of Societies	No. of Members ('000)	Husk Purchased		Yarn Produced		Wages Paid	
			No. lakhs	Value Rs. lakhs	Quantity (tonnes)	Value Rs. lakhs	Workers ('000)	Amount (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1985-86	555	246	1196	260.00	9589	796.00	103	351.00
1986-87	429*	222	1264	152.00	9587	770.00	75	375.00
1987-88	421*	229	1338	247.00	10298	738.00	73	421.00

Source: Directorate of Coir Development

* Only working societies.

(b) Manufacturing Societies

Year	No. of Societies	No. of Members	Value of Production (Rs. lakhs)	Workers Benefited (No.)	Wages (Rs. lakhs)	Value of Exports (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1985-86	47	5348	241.00	1515	55.00	138.00
1986-87	*23	3522	327.00	2348	N.A.	534.00
1987-88	*24	3552	456.00	2163	62.50	N.A.

*Only working societies.

Source: Directorate of Coir Development.

Appendix 6.26

Export of Coir and Coir Products from India During 1986-87 and 1987-88.

Items	1986-87		1987-88	
	Quantity (tonnes)	Value (Rs. lakhs.)	Quantity (tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)
1. Coir Fibre	1	0.09	2	0.17
2. Coir Yarn	12,105	1207.73	14078	1286.56
3. Coir Mats	7,924	1354.70	6542	1110.00
4. Coir Mattings	2,892	534.16	3217	603.80
5. Coir Rugs and Carpets	236	40.13	1236	210.73
6. Coir and Other Sorts	21	3.31	21	2.89
7. Coir Rope	30	3.13	50	5.18
8. Rubberised Coir Goods	5	1.21	1	0.41
Total	23,214	3144.46	25147	3219.74

Source: Directorate of Coir Development.

Appendix 6.27

Production and Productivity—Handloom Industry

Item	1986-87	1987-88
(1)	(2)	(3)
1. Estimated Total Number of Handlooms in the State	95000	95000
2. Number of Looms in the Co-operative Sector	58000	58500
3. Percentage of (2) to (1)	60	61
4. Co-operative Sector		
(i) Production of Handloom Cloth (Million Metre)	50.40	53.25
(ii) Value of Production (Rs. crores)	31.49	32.50
(iii) Productivity (metre/loom)	869	910
5. Corporate Sector		
(i) Number of Looms Under Handloom Development Corporation	6348	6370
(ii) Production of Handloom Cloth (Million Metre)	2.05	2.55
(iii) Value of Production (Rs. crores)	1.93	2.31
(iv) Productivity (Metre/Loom)	323	400
6. Unorganised Sector		
(i) No. of Looms in the Unorganised Sector	30652	30130
(ii) Production of Handloom Cloth (Million Metre)	41.02	42.00
(iii) Value of Production (Rs. crores)	24.60	24.30
(iv) Productivity (Metre/Loom)	1332	1344
7. Total (Co-operative, Corporate and Unorganised Sector)		
(i) Production of Handloom Cloth (Million Metre)	93.47	97.80
(ii) Value of Production (Rs. crores)	58.02	59.11
(iii) Productivity (Metre/Loom)	953	1013
8. (a) Assistance extended by way of loan and subsidy for the Development of Handloom industry during 1987-88 (Rs. lakhs)		
(i) Loan		
State Government	26.28	17.13
Central Government	49.19	15.10
N.C.D.C.	1.35	33.86
Total	76.82	66.09
(ii) Subsidy		
State Government	38.93	77.42
Central Government	4.46	11.92
N.C.D.C.	..	2.84
Total	43.39	92.18
(b) Amount Spent as Rebate on the Sale of Handloom Cloth During 1987-88 (Rs. lakhs)		
State Government	344.68	377.00
Central Government	69.48	103.00
Total	414.16	480.00

	(1)	(2)	(3)
9. Value of Unsold Stock			
(a) in the Co-operative Sector (Rs. crores)		24.30	26.00
(b) in the Corporate Sector (,,)		2.00	2.65
10. Number of Co-operative Societies		580	585
(a) Factory Type Societies			
(i) Working Societies		94	99
(ii) Dormant		2	2
(iii) Under Liquidation		2	2
(iv) Total		98	103
(b) Cottage Type Societies			
(i) Working Societies		361	361
(ii) Dormant		39	39
(iii) Under Liquidation		82	82
(iv) Total		482	482

Appendix 6.28 (a)

Working Results of Handloom Apex Society (Hantex)

Particulars	For the years	
	1986-87	1987-88
(1)	(2)	(3)
1. Sales Turnover (Rs. Crores)	8.77	10.00
2. Procurement of Cloth (Rs. Crores)	7.82	8.79
3. Purchase of Yarn (Rs. Crores)	2.19	2.20
4. Distribution of Yarn (Rs. Crores)	2.41	2.45
5. Garment Sold (Rs. lakhs)	7.35	7.47
6. Janatha Production (Rs. lakhs)	19.36	25.97
7. Polyester Shirting, Saree, Double Veshty, Single Veshty —Production (Rs.lakhs)	30.50	64.89
8. Processed Goods—Production (mts)	73,787	2,21,360
9. Value (Rs. lakhs)	40.99	121.25
Number of Exhibitions Conducted	57	57

Source: Directorate of Handloom.

Appendix 6.28 (b)

Working Results of the Kerala Handloom Development Corporation, Cannanore

(Amount Rs. lakhs)

Particulars	1986-87	1987-88
(1)	(2)	(3)
1. Paid up Capital	176.14	192.14
2. Borrowings	530.51	524.25
3. Gross Block	77.36	82.72
4. Value of Production	193.33	231.00
5. Income Through Revenue Receipts	20.10	47.65
6. Income Through Sale of Production (G/P)	90.67	79.41
7. Total Expenditure (Total Administration Expense)	90.68	106.12
8. Expenditure for Raw Materials Consumed	74.49	72.40
9. Expenditure for Personal Payments	47.80	41.59
10. Expenditure for Depreciation	5.75	5.00
11. Expenditure for Interest and Bank Charge	24.86	23.60
12. Net Profit (+)/Net Loss(—)	(—)10.52	(—)7.66
13. Accumulated Loss	(—)37.66	(—)45.32

Source: Directorate of Handloom.

Appendix 6.29

Production and Productivity—Powerloom Industry

Item	1986-87	1987-88
(1)	(2)	(3)
1. Estimated Number of Powerlooms in the State	4300	4300
2. Number of Looms in the Co-operative Sector	700	700
3. Percentage of (2) to (1)	16.3	16.3
4. No. of Powerloom Co-operative Societies	18	18
5. No. of Members in These Societies	720	730
6. Co-operative Sector		
(i) Production of Cloth (lakh metres)	35.00	40.00
(ii) Value of Production (Rs. lakhs)	220.00	280.00
(iii) Productivity (metre/loom)	5000	5714
7. Unorganised Sector		
(i) Production of Cloth (lakh metres)	148.00	150.00
(ii) Value of Production (Rs. lakhs)	898.00	900.00
(iii) Productivity (metre/loom)	4111	4166.00
8. Total (Co-operative and Unorganised Sector)		
(i) Production (lakh metres)	183.00	190.00
(ii) Value of Production (Rs. lakhs)	1118.00	1180.00
(iii) Productivity (metre/loom)	4255.00	4418.00

Source: Directorate of Handloom.

Appendix 6.30

Foreign Exchange Earning of India From Cashew Industry

(Value Rs. in Crores)

Year	Export Value		Total	Import Value of Raw nuts	Net Foreign Exchange Earned
	Cashew Kernels	Cashew Shell Liquid			
(1)	(2)	(3)	(4)	(5)	(6)
1976-77	105.99	1.08	107.07	18.33	88.74
1977-78	149.54	1.07	150.61	17.98	132.63
1978-79	80.37	4.80	85.17	9.16	76.01
1979-80	118.26	14.59	132.85	11.60	121.25
1980-81	141.09	6.84	147.93	19.57	128.36
1981-82	181.50	2.35	183.85	18.37	165.48
1982-83	135.36	1.80	137.16	1.41	135.75
1983-84	150.87	1.36	152.23	22.12	130.11
1984-85	179.68	2.03	181.71	36.49	145.22
1985-86	225.11	1.35	226.46	25.88	190.64
1986-87	334.11	1.46	335.57	69.46	266.11
1987-88	322.71	4.03	326.74	67.25	259.49

Source: The Cashew Export Promotion Council, Cochin.

Appendix 6.31

Import of Raw Cashew Nuts into India

Year	Quantity M.T.	Index	Value in Rs. Crores	Index
(1)	(2)	(3)	(4)	(5)
1976-77	75122	100.00	18.33	100.00
1977-78	56299	74.9	17.98	98.09
1978-79	20496	27.28	9.16	49.97
1979-80	24222	32.24	11.60	63.28
1980-81	25715	34.23	19.57	106.76
1981-82	16057	21.37	18.37	100.22
1982-83	1485	1.98	1.41	7.69
1983-84	26877	35.78	22.12	120.68
1984-85	33215	44.21	36.49	199.07
1985-86	23310	31.03	25.88	144.19
1986-87	49045	65.29	69.46	378.94
1987-88	42256	56.25	67.25	366.88

Source: The Cashew Export Promotion Council, Cochin.

Group-Wise Working Results of State Public Sector Undertakings in Kerala

Group	No. of Companies details of which are available	(Amount in Rs. lakhs)												
		Paid up Capital		Total Borrowings		Gross Block		Net Profit earned During 1987-88		Net Loss incurred during 1987-88		Accumulated loss as on 31-3-1988		
		As on 31-3-1987	As on 31-3-1988	As on 31-3-1987	As on 31-3-1988	As on 31-3-1987	As on 31-3-1988	No. of Companies	Amount	No. of Companies	Amount	No. of Companies	Amount	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
1. Modern Manufacturing and Development Industries														
(i) Keltron Group	9	3105.79	3364.68	9493.12	9800.95	4256.39	4542.86	3	22.12	6	664.52	7	3412.87	
(ii) Kerala State Industrial Enterprises Group	7	2940.72	3680.46	5158.97	5487.46	2598.93	2799.66	1	1.61	6	760.22	6	4014.61	
(iii) Chemical	4	5210.71	5518.29	15456.96	16402.15	18908.17	18460.51	1	182.43	3	1784.71	3	9003.26	
(iv) Textiles	3	1178.21	1188.04	1447.53	1803.70	1388.25	1604.37	..	..	3	477.28	3	2078.75
(v) Electricals and cables	2	266.07	276.07	287.11	317.06	194.43	194.67	..	..	2	106.08	2	406.75
(vi) Engineering	5	782.61	877.63	1577.47	3415.70	1604.02	1655.14	2	103.41	3	335.38	2	1044.90	
(vii) Ceramics & Refractories	2	136.29	136.29	223.60	259.07	87.00	87.23	1	2.74	1	32.00	2	266.48	
2. Agro based	3	860.10	955.10	352.77	395.89	1036.04	1157.21	2	38.08	1	27.04	2	402.58	
3. Wood based	2	187.71	187.71	590.11	667.74	434.70	435.29	..	..	2	85.10	2	436.74
4. Trading and Infrastructure Development Institutions	1	11.30	11.30	..	..	3.25	3.49	1	20.07	..	..	..	..
Total	38	14679.51	16195.57	34587.64	38549.72	29911.18	30940.43	11	370.46	27	4272.33	29	21026.94	

Kerala Financial Corporation—Summary of Loan Operations as on 31-3-1988

(Rs. in lakhs)

Sl. No.	During the year 1987-88						Since inception upto 31-3-1988																		
	Small scale			Others			Total			Small Scale			Others			Total									
	No.	Amount	(3)	No.	Amount	(4)	(5)	No.	Amount	(6)	(7)	No.	Amount	(8)	(9)	No.	Amount	(10)	(11)	No.	Amount	(12)	(13)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)												
1. Applications pending as on 1-4-1987		210	932.57	3	85.00	213	1017.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2. Applications received		1982	4775.33	43	1038.07	1425	5819.40	12248	29388.46	716	9699.48	12962	39082.94												
3. Total Applications for consideration		1592	5707.90	46	1123.07	1638	6830.97	12246	29388.46	716	9699.48	12962	39082.94												
4. Applications withdrawn/rejected or otherwise disposed of		136	492.00	..	..	138	492.00	2466	7375.64	178	2523.78	2614	9899.42												
5. Applications sanctioned (Gross)		1005	3404.24	28	659.21	1033	4063.45	9329	19886.36	520	6583.68	9849	26470.01												
6.A Applications cancelled/Reduced out of during the year of sanction		23	82.07	..	..	23	82.07	..	..	..	..	..	..						
B. Applications cancelled/Reduced out of previous year sanction		98	448.84	2	32.20	100	481.04	..	..	..	..	..	..						
C. Total Cancellation/Reduction (6A+6B)		121	530.91	2	32.20	123	563.11	1945	3669.63	66	973.94	1411	4642.97												
7. Application sanctioned effectively (5-6A)		982	3322.17	28	659.21	1010	3981.38	7984	16216.70	454	5610.34	8438	21827.04												
8. Net sanction (5-6C)		884	2873.33	26	627.01	10	3500.94	7580	13179.27	389	3840.11	7969	17019.38												
9. Amount disbursed along with number of newly assisted units		961	2916.23	18	481.52	979	3397.75	7580	13179.27	389	3840.11	469	2149.10												
10. Application pending for sanction as at the end of the period		..	..	..	..	..	..	451	1692.10	18	451.00	469	2149.10												

Source: Kerala Financial Corporation, Annual Report 1987-88.

Appendix 6.34

District-wise sanction and Disbursement of Loan and Advances of Kerala Financial Corporation as on 31-3-1988

(Amount Rs. lakhs)

District	Effective Sanction		Disbursement	
	Number	Amount	Number	Amount
(1)	(2)	(3)	(4)	(5)
I. Backward Districts				
No Industry Districts (Category-A)				
1. Idukki	216	1046.97	182	698.34
2. Wayanad	181	383.76	170	296.20
II. Backward District (Category-B)				
1. Alleppey	5321	1,577.26	512	1312.49
2. Malappuram	302	909.26	293	778.66
3. Cannanore	793	1743.45	746	1319.83
4. Kasargod	103	279.93	81	199.06
III. Backward District (Category-C)				
1. Trivandrum	931	2742.01	865	2217.65
2. Trichur	770	2526.88	704	1885.90
Total for Backward Districts	3830 (45.39)	11209.52 (51.36)	3553 (44.59)	8708.13 (51.17)
IV. Non Backward Districts				
Pathanamthitta	127	584.42	133	373.93
Quilon	873	1479.74	852	1285.87
Kottayam	801	1702.04	784	1460.78
Ernakulam	1587	4302.53	1484	3106.17
Palghat	478	1294.99	442	963.27
Calicut	736	1328.77	715	1116.20
Union Territory of Lakhadweep	6	5.03	6	5.03
Total for Non Backward Districts	4608 (54.61)	10,617.52 (48.64)	4416 (55.41)	8311.25 (48.83)
Grand Total	8438 (100.00)	21827.04 (100.00)	7969 (100.00)	17019.38 (100.00)

Source: Kerala Financial Corporation, Annual Report.

Note: Figures in brackets indicate the percentage.

Appendix 6.35

Industry-wise Classification of Loans and Advances Sanctioned and Disbursed To Small Scale Sector by Kerala Financial Corporation

(Rs. lakhs)

Type of Industry	During 1987-88				Upto 31st March 1988			
	Amount Sanctioned	Percentage to Total	Amount Disbursed	Percentage to total	Amount Sanctioned	Percentage to Total	Amount Disbursed	Percentage to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Stone Quarrying	67.59	2.35	81.68	2.80	305.56	1.88	153.27	1.16
2. Food Manufacturing	487.37	16.97	346.63	11.89	1940.15	11.96	1419.47	10.79
3. Beverage Units	37.61	1.34	48.45	1.66	96.64	0.60	96.64	0.73
4. Tobacco Manufacturing	0.58	0.02	..	..	1.00	..	0.42	..
5. Textiles	22.52	0.78	35.84	1.23	527.00	3.26	405.93	3.08
6. Footwear and other wearing Apparels	24.27	0.84	15.16	0.52	71.59	0.44	63.08	0.48
7. Wood Cork, Except Furniture	91.92	3.20	102.99	3.54	424.91	2.63	320.78	2.43
8. Furniture and Fixtures	172.76	6.01	104.11	3.57	670.07	4.13	508.65	3.86
9. Paper Products	113.89	3.96	75.93	2.60	486.88	3.00	348.71	2.66
10. Printing, Publishing and Other Allied Industries	63.79	2.22	74.79	2.56	589.02	3.63	558.98	4.24
11. Leather Goods	..	..	3.29	0.11	4.55	0.03	4.00	0.08
12. Rubber Goods]	164.73	5.74	224.91	7.71	1648.73	10.18	1350.86	10.26
13. Chemicals and Chemical Products	108.76	3.77	152.30	5.22	1117.00	6.89	935.46	7.10
14. Petroleum Products	..	..	..	..	9.37	0.06	9.37	0.07
15. Non-Metal Industries	169.20	5.89	126.74	4.35	881.18	5.43	603.41	4.58
16. Basic Metal Industries	12.21	0.42	5.35	0.18	186.00	1.15	186.00	1.41
17. Metallic Products	203.49	7.08	133.38	4.57	1330.12	8.20	857.60	6.51
18. Machinery except Electrical Machinery	5.37	0.19	3.24	0.11	248.00	1.53	212.60	1.61
19. Electrical Machinery	75.53	2.63	103.37	3.55	323.00	1.99	275.51	2.09
20. Transport Equipments	124.11	4.33	75.39	2.59	415.43	2.56	306.24	2.32
21. Motion pictures	..	..	..	..	71.34	0.44	59.55	0.45
22. Fishing Boats	..	..	..	..	226.00	1.39	225.64	1.71
23. Transport	513.69	17.88	538.02	18.45	2609.71	16.09	2390.71	18.12
24. Miscellaneous Industries	412.92	14.38	664.67	22.79	2032.45	12.53	1886.34	14.31
Total	2873.33	100.00	2916.24	100.00	16216.70	100.00	13179.27	100.00

APPENDIX 6.36

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

(Amount Rs. Crores)

State/Union Territory	As on 31st March, 1986		As on 31st March, 1987	
	Value of Property	Percentage to Total	Value of Property	Percentage to total
(1)	(2)	(3)	(4)	(5)
1. Andhra Pradesh	5294	9.3	6762	9.9
2. Assam	3012	5.3	3809	5.6
3. Bihar	6312	11.1	6969	10.2
4. Gujarat	2406	4.2	3198	4.7
5. Haryana	546	1.0	650	1.0
6. Himachal Pradesh	326	0.6	527	0.8
7. Jammu and Kashmir	84	0.1	118	0.2
8. Karnataka	1547	2.7	1722	2.5
9. Kerala	923	1.6	1074	1.6
10. Madhya Pradesh	6844	12.0	8572	12.6
11. Maharashtra	9030	15.9	10905	16.0
12. Orissa	4073	7.2	4638	6.8
13. Punjab	603	1.1	641	0.9
14. Rajasthan	717	1.3	781	1.1
15. Tamil Nadu	2954	5.2	3019	4.5
16. Uttar Pradesh	3310	5.8	3914	5.8
17. West Bengal	4000	7.0	4525	6.6
18. Delhi	1030	1.8	1928	2.8
19. Goa	28	0.1	35	0.1
20. Other States/Union Territories	390	0.7	405	0.6
21. Unallocated	3377	6.0	3860	5.7
Total	56806	100.0	68052	100.0

Source : Centre for Monitoring Indian Economy.

APPENDIX 6.37

Production and Sale of Mineral Sand in Kerala

(Quantity in MT, Value Rs. lakhs)

Mineral	1986-87			1987-88		
	Quantity of Production	Sales		Quantity of Production	Sales	
		Quantity	Value		Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Ilmenite	90201	99017	686.19	90360	61750	427.93
2. Brown Ilmenite	..	..	..	..	..	..
3. Rutile	6723	8302	523.44	5192	5074	319.92
4. Monazite	10	..	..	1	..	..
5. Sillimanite	1847	3293	41.16	1859	4650	58.13
6. Zircon	6489	5447	70.65	5795	5284	68.53

APPENDIX 6,38

Production and sale of Major Minerals (Other than Mineral sands)

(Quantity in M.T.; Value Rs. lakhs)

Minerals	Production		1986-87				Production		1987-88			
	Raw	Proce- ssed	Sales		Raw	Proce- ssed	Raw	Proce- ssed	Sales		Raw	Proce- ssed
			Quantity	Value					Quantity	Value		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Glass and White Quartz sand	51746	31778	51821	18.66	33355	17.68	34415	43006	33527	12.07	41568	22.03
2. China clay	98163	32517	14889	17.87	31513	132.35	108351	40903	20888	25.07	35820	130.44
3. Fire Clay	..	..	..	..	..	..	..	..	..	..	..	..
4. Ball Clay	500	..	578	0.69	..	..	452	..	340	0.41	..	..
5. Limeshell	127493	..	139608	272.24	..	..	125904	..	125494	244.71	..	..
6. Limestone	272228	..	267506*	535.01	..	..	189592	..	404711*	809.42	..	..

* Consumption

Source.: Department of Mining and Geology.

Appendix 7.1

District-wise Public works Department Roads Improved/Developed/Taken over during 1987-88.

(in Kms.)

Name of District	Developed/Improved				Taken over (Village Roads)		
	State Highways	Major District Roads	Other District Roads	Village Roads	Total	Number	Kms.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	..	..	38.38	72.15	110.53	3	12.18
Quilon	..	..	..	16.33	16.33	2	7.81
Pathanamthitta	19.70	..	..	17.22	36.92	5	25.22
Alleppey	6.05	..	10.90	17.62	34.57	1	1.38
Kottayam	1.00	0.87	9.30	35.13	46.30	2	2.91
Idukki	NA	NA	NA	NA	NA	..	..
Ernakulam	0.28	..	7.21	17.77	25.21	1	17.65
Trichur	NA	NA	NA	NA	NA	4	23.93
Palghat	4.00	28.91	7.86	15.40	56.17	1	2.06
Malappuram	..	..	..	6.30	6.30	1	10.90
Calicut	..	..	8.23	20.05	28.28	..	Nil
Wayanad	..	..	2.75	11.24	13.99	..	..
Cannanore	..	..	..	..	..	1	2.40
Kasaragod	4.20	22.20	..	29.02	55.42	..	..
Total	35.18	51.98	84.63	258.23	430.02	21	106.44

Source: Public Works Department.

Appendix 7.2

Division-wise and Surface-wise length of roads maintained by Public Works Department as on 1-4-1988

Sl. No.	Name of Division	Cement Concrete	Black Topped	Waterbound Macadam	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(6)
1.	Trivandrum	..	1540.05	62.22	95.58	1697.85
2.	Quilon	0.27	1327.10	216.65	168.82	1712.84
3.	Pathanamthitta	0.80	1232.67	52.36	163.62	1449.45
4.	Alleppey	0.80	777.37	64.26	107.27	949.70
5.	Kottayam	16.00	1765.47	44.54	148.56	1974.57
6.	Idukki	..	966.70	116.94	335.88	1619.52
7.	Moovattupuzha	..	982.15	66.88	92.35	1141.38
8.	Ernakulam	0.57	753.38	18.12	23.55	795.62
9.	Trichur	3.39	1397.34	45.11	50.72	1496.56
10.	Palghat	..	1205.03	72.95	180.54	1458.52
11.	Manjeri	..	1190.94	24.78	302.31	1518.03
12.	Calicut	..	980.60	53.79	181.00	1215.39
13.	Wayanad	..	495.47	16.70	68.63	580.80
14.	Cannanore	4.11	1050.22	2.00	343.65	1399.98
15.	Kasaragod	..	563.00	14.96	220.12	798.08
Total		25.94	16227.49	872.26	2682.60	19808.29

Source: Public Works Department.

Appendix 7.3

Distribution of Public Works Department Roads (Division-wise; as on 1-4-1988)

Sl. No.	Division	(in. Kms.)				Total
		State Highways	Major District	Other District Roads	Village Road	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Trivandrum	117.30	292.77	1185.35	102.43	1697.85
2.	Quilon	167.18	418.18	1127.48	..	1712.84
3.	Pathanamthitta	172.70	457.77	665.27	153.71	1449.45
4.	Alleppey	112.50	122.92	572.76	141.52	949.70
5.	Kottayam	256.91	677.32	918.24	122.10	1974.57
6.	Idukki	327.97	540.55	372.70	378.90	1619.52
7.	Moovattupuzha	120.76	485.05	499.82	35.75	1141.38
8.	Ernakulam	58.40	309.95	427.27	..	795.62
9.	Trichur	201.88	501.59	720.60	72.49	1496.56
10.	Palghat	154.80	713.58	421.63	168.51	1458.52
11.	Manjery	162.11	407.75	485.23	462.94	1518.03
12.	Calicut	67.76	311.29	343.95	492.39	1215.39
13.	Wayanad	40.07	327.63	140.84	72.26	580.80
14.	Cannanore	55.13	290.01	716.69	338.15	1399.98
15.	Kasaragod	28.97	84.59	375.50	309.02	798.08
Total		2044.44	5940.95	8973.33	2849.57	19808.29

Source: Public Works Department.

Appendix 7.4

Type-wise length of roads under Panchayats

Sl. No.	District	(Kms.)							
		Black topped and Mettalled		Gravelled		Earthen		Total	
		as on 1-4-1987	as on 1-4-1988*	as on 1-4-1987	as on 1-4-1988*	as on 1-4-1987	as on 1-4-1988*	as on 1-4-1987	as on 1-4-1988*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1.	Trivandrum	285	637	2451	2216	6233	6111	8969	8964
2.	Quilon	120	120	6693	6693	6458	6458	13271	13271
3.	Pathanamthitta	51	40	1408	2030	3968	3479	5427	5549
4.	Alleppey	48	48	2379	2379	2139	2139	4566	4566
5.	Kottayam	367	367	1140	1140	2931	2931	4438	4438
6.	Idukki	43	64	422	633	3991	4177	4456	4874
7.	Ernakulam	305	305	1567	1567	3475	3475	5347	5347
8.	Trichur	800	800	4375	4375	4221	4221	9396	9396
9.	Palghat	737	672	1133	1234	3370	3496	5240	5402
10.	Malappuram	295	295	1407	1407	3931	3931	5633	5633
11.	Kozhikode	216	138	1625	1827	2871	3216	4712	5181
12.	Wayanad	587	419	182	636	1568	1923	2337	2378
13.	Cannanore	181	181	1729	1729	4723	4723	6693	6693
14.	Kasargode	186	217	1974	1921	1825	1881	3985	4019
Total		4221	4303	28485	29787	51704	51561	84410	85651

* Provisional Figures

Source: Director of Panchayats

Appendix 7.5

Growth of Motor Vehicles in Kerala since 1971

Sl. No.	Type of Vehicles	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	<i>Goods Vehicles</i>										
(i)	Four Wheelers and above	15875	20128	22896	25696	29153	30966	36699	40398	45144	49779
(ii)	Three Wheelers including Tempos	..	995	1786	2038	2532	3292	4170	4927	6140	7609
2.	<i>Buses</i>										
(i)	Stage carriages	7828	8705	9159	9765	10781	11735	12910	13497	13102	13741
(ii)	Contract carriages/omni buses	..	842	1041	1265	1539	1912	2324	2652	3602	4380
3.	<i>Cars and Station Wagons</i>										
(i)	Cars	44497	54381	56802	60412	64147	68511	75731	82222	89023	101731
(ii)	Station Wagons	..	196	236	302	370	484	507	664	682	777
(iii)	Taxi Car	11525	17780	18960	21569	23763	25597	28189	30201	32458	39856
(iv)	Jeep	5859	7023	7834	9090	10110	11839	12972	14721	17012	19893
4.	<i>Three Wheelers</i>										
(i)	Autorickshaw	3125	7397	9640	12727	15045	17724	24383	30537	35838	44116
(ii)	Motorised cycrickshaw	..	38	42	44	49	52	54	55	58	59
5.	<i>Two Wheelers</i>										
(i)	Motorised cycles	..	58	70	74	70	71	73	73	73	75
(ii)	Scooter/Motor cycle	25769	50943	59531	70498	81838	96476	111629	130992	159863	185349
6.	<i>Tractor, Trailers Articulated</i>	2735	1864	1853	1946	1975	2006	2104	2236	2409	2509
7.	<i>Tractor</i>	..	1892	2146	2266	2344	2641	3089	3268	3457	3657
8.	<i>Tiller</i>	..	469	530	793	827	964	1118	1214	1379	1640
9.	<i>Trailer</i>	..	260	285	328	334	369	416	441	498	541
10.	<i>Other</i>	2507	1735	1786	2050	2046	2339	2891	3219	3572	4077
	Total	119720	174704	194597	220733	246923	276980	319259	361617	414310	473789
	Percentage increase over the previous year	..	13.01	11.39	11.47	11.87	12.17	15.26	13.27	14.57	14.36

Appendix 7.6

Number of Motor Vehicles having valid registration as on 31-3-1988

Sl. No.	District	Goods Vehicles		Buses		Cars and Station Wagons			Three Wheelers		
		Four Wheelers & above	Three Wheelers including Tempo	Stage Carriage	Contract Carriage/ Omini bus	Car	Station Wagon	Taxi Car	Jeep	Auto-rickshaw	Motorised Cycle Rickshaw
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1.	Trivandrum	3787	1300	204	1258	18538	94	2515	2841	5993	6
2.	Quilon	5911	131	712	332	11507	39	4781	1157	2013	9
3.	Pathanamthitta	3932	193	389	80	5601	32	1837	636	1359	—
4.	Alleppey	1948	915	540	366	6809	10	3067	373	2074	2
5.	Kottayam	3718	592	842	263	5190	..	2206	1620	3338	5
6.	Idukki	1889	120	259	87	2125	11	1713	1262	241	1
7.	Ernakulam	8117	2304	1473	349	16135	57	3223	1652	4618	17
8.	Trichur	5422	540	1569	613	7576	21	5185	586	5739	18
9.	Palghat	2286	52	773	269	4534	15	1476	689	2099	—
10.	Malappuram	2882	220	835	86	4088	6	3017	2389	3213	—
11.	Calicut	4796	468	1109	345	12701	171	1750	3464	4140	—
12.	Wayanad	878	120	98	19	336	19	686	1003	559	—
13.	Cannanore	3306	510	1156	253	5064	300	1897	1525	5381	1
14.	Kasaragode	901	144	329	59	1519	..	503	663	3349	—
KSRTC (RTO Nos.)		6	..	3453	1	8	2	..	33	..	..
Total		49779	7609	13741	4380	101731	777	33856	19893	44116	59

Appendix 7.6 (Contd.)

Sl. No.	District	Two Wheelers		Tractor Trailer Articulatd	Tractor	Tiller	Trailer	Others	Total	No. of Vehicles per 100 Sq Km. of area.
		Motorised Cycle	Scooter/ Motor Cycle							
(1)	(2)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1.	Trivandrum	..	36028	163	114	48	29	1000	73918	3372
2.	Quilon	9	18260	195	64	55	73	237	45485	1857
3.	Pathanamthitta	3	6474	11	41	26	2	35	20651	767
4.	Alleppey	3	14058	24	231	91	36	51	30598	22408
5.	Kottayam	..	10260	101	263	241	44	187	28870	1310
6.	Idukki	9	1802	141	137	37	23	105	9962	197
7.	Ernakulam	10	34627	495	327	368	128	880	74780	3015
8.	Trichur	36	21682	338	526	308	14	287	50469	1664
9.	Palghat	5	11687	340	1596	333	60	105	26319	587
10.	Malappuram	..	4140	68	233	30	43	153	21403	603
11.	Calicut	..	12645	80	81	48	48	752	42598	1817
12.	Wayanad	..	1683	437	5	22	22	31	5918	278
13.	Cannanore	..	9048	116	3	4	6	251	28821	962
14.	Kasaragode	..	2951	..	36	29	13	3	10499	535
KSRTC (RTO Nos.)		..	4	..	..	..	..	..	3507	..
Total		75	185349	2509	3657	1640	541	4077	473789	1219

Appendix 7.7

District-wise and Category-wise distribution of Motor Vehicles in Kerala and their percentages during 1987-88

Sl. No.	District	Goods Vehicles	Buses	Cars and station wagons including taxi and Jeep	Three Wheelers	Two Wheelers	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	Trivandrum	5087 (8.9)	1462 (8.1)	23988 (15.3)	5999 (13.6)	36028 (49.4)	1354 (10.9)	73918 (15.6)
2.	Quilon	6042 (10.5)	1044 (5.8)	17484 (11.2)	2022 (4.6)	18269 (9.8)	624 (5.0)	45485 (9.6)
3.	Pathanamthitta	4125 (7.2)	469 (2.6)	8106 (5.2)	1359 (3.0)	6477 (3.5)	115 (0.9)	20651 (4.4)
4.	Alleppey	2863 (5.0)	906 (5.0)	10259 (6.6)	2076 (4.7)	14061 (7.6)	433 (3.6)	30598 (6.5)
5.	Kottayam	4310 (7.5)	1105 (6.1)	9016 (5.8)	3343 (7.6)	10260 (5.5)	836 (6.7)	28870 (6.1)
6.	Idukki	2009 (3.5)	346 (1.9)	5111 (3.3)	242 (0.5)	1811 (1.1)	443 (3.6)	9962 (2.1)
7.	Ernakulam	10421 (18.2)	1822 (10.1)	21067 (13.5)	4635 (10.5)	34637 (18.7)	2198 (17.7)	74780 (15.8)
8.	Trichur	5962 (10.4)	2182 (12.0)	13368 (8.5)	5757 (13.0)	21718 (11.7)	1473 (11.9)	50460 (10.7)
9.	Palghat	2338 (4.1)	1042 (5.8)	6714 (4.3)	2099 (4.7)	11692 (6.3)	2434 (19.6)	26319 (5.5)
10.	Malappuram	3102 (5.4)	921 (5.1)	9500 (6.1)	3213 (7.3)	4140 (2.2)	527 (4.2)	21403 (4.5)
11.	Calicut	5264 (9.2)	1454 (8.0)	18086 (11.6)	4140 (9.4)	12645 (6.8)	1009 (8.1)	42598 (9.0)
12.	Wynad	998 (1.7)	117 (0.6)	2044 (1.3)	559 (1.3)	1683 (0.9)	517 (4.2)	5918 (1.2)
13.	Cananore	3816 (6.6)	1409 (7.8)	8786 (5.6)	5382 (12.2)	9048 (4.9)	380 (3.0)	28821 (6.1)
14.	Kasaragod	1045 (1.8)	388 (2.1)	2685 (1.7)	3349 (7.6)	2951 (1.6)	81 (0.6)	10499 (2.2)
	KSRTC—RTO (Nos.)	6 (0.01)	3454 (19.0)	43 (0.03)	..	4 (0.002)	..	3507 (0.7)
	Total	57388 (100)	18121 (100)	156257 (100)	44175 (100)	185424 (100)	12424 (100)	473789 (100)

Appendix 7.B
 Number of vehicles newly registered in the State during the year 1987-88

Sl. No.	District	Goods Vehicles Buses						Cars and Station Wagons			Three Wheelers			Two Wheelers			Tractor	Trailer	Others	Total
		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)					(17)	(18)	(19)
1.	Trivandrum	270	260	7	223	1293	..	..	30	480	..	..	5512	2	..	..	..	5	8082
2.	Quilon	369	3	34	41	759	..	..	178	389	..	..	2246	15	14	7	2	7	4064
3.	Pathanamthitta	409	63	16	14	399	13	..	133	359	..	..	1972	1	12	6	..	1	3398
4.	Alleppey	185	75	15	66	134	..	250	36	384	..	2	1995	..	15	8	4	3	3172	
5.	Kottayam	298	94	32	49	460	..	47	136	558	..	..	1994	..	2	1	..	2	3673
6.	Idukki	58	2	49	5	62	..	34	153	20	..	..	247	1	6	4	3	4	648
7.	Ernakulam	1387	350	57	104	1102	..	216	64	438	..	..	2434	..	36	42	6	..	6236
8.	Trichur	476	105	132	139	691	..	218	83	863	1	..	3692	19	26	143	..	29	6617	
9.	Palghat	85	1	27	32	149	..	5	39	80	..	..	1138	10	68	13	..	26	1673
10.	Malappuram	166	80	56	32	187	..	..	425	604	..	..	616	10	16	2	8	7	2209
11.	Kozhikode	610	43	36	108	2860	41	102	615	1614	..	..	2338	2	1	5	13	410	8798
12.	Wayanad	28	1	9	2	26	..	9	64	24	..	..	236	28	2	4	..	6	439
13.	Cannanore	160	18	69	35	225	19	..	141	364	..	..	833	7	..	3	1	5	1880
14.	Kasaragode	58	9	21	8	65	..	25	74	125	..	..	374	..	11	10	1	..	781
KSRTC-RTO (Nos.)		..	..	333	..	..	..	..	..	..	..	..	..	..	..	..	..	..	333
Total		4559	1104	893	858	8412	73	906	2171	6302	1	2	25627	95	209	248	38	505	52003	

Appendix 7.9

Kerala State Road Transport Corporation—Operational Statistics—1987-88

Sl. No.	Transport Unit	No. of buses held as on 31-3-1988	No. of schedules as on 31-3-1988	No. of routes as on 31-3-1988	Route distance (Km.)	Gross Km. Operated (Lakhs)	Effective Km. operated (lakhs)	Passengers carried (Lakhs)	Average carrying capacity per bus
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1.	Parassala	54	50	43	1591	57.4	56.97	156.51	56.7
2.	Neyyattinkara	106	100	178	4778	91.4	91.05	319.83	59.6
3.	Poovar	53	49	52	1336	40.6	40.40	134.12	56.8
4.	Vizhinjam	65	55	30	1675	45.3	45.23	174.47	57.5
5.	Kattakada	61	56	120	3416	42.8	42.54	188.20	54.4
6.	Trivandrum Central	128	112	145	12244	141.3	140.27	262.52	54.2
7.	Pappanamcode	106	102	214	2590	63.0	62.28	409.29	49.7
8.	Trivandrum City	154	148	575	8270	85.3	84.01	589.06	52.9
9.	Vikas Bhavan	76	74	270	4084	51.6	51.39	298.79	50.4
10.	Peroorkada	58	54	219	4084	33.5	33.41	208.50	49.6
11.	Nedumangad	103	92	155	5015	84.0	83.81	279.04	57.4
12.	Kilimanoor	44	39	168	5662	35.2	34.81	93.90	58.8
13.	Attingal	66	60	134	4804	57.5	56.96	187.53	54.7
14.	Quilon	103	91	198	7075	91.5	91.25	270.65	54.9
15.	Kottarakkara	78	72	284	8244	61.6	60.98	211.90	54.3
16.	Punalur	48	42	132	4973	49.0	39.44	132.59	52.9
17.	Pathanamthitta	51	46	103	4952	49.7	49.45	112.11	56.3
18.	Adoor	43	38	39	1484	16.6	16.65	89.17	54.0
19.	Karunagappally	43	39	86	4180	33.7	33.63	129.17	57.7
20.	Kayamkulam	62	56	160	5640	54.9	54.65	205.77	55.0
21.	Haripad	25	22	53	1587	20.7	20.67	61.32	47.6
22.	Mavelikara	23	21	46	2203	8.8	8.81	21.57	55.0
23.	Alleppey	78	75	120	4075	71.5	70.96	273.56	56.2
24.	Sherthalai	73	65	154	5243	60.9	60.45	189.82	58.4
25.	Chengannur	54	51	163	5917	59.1	58.67	144.81	57.0
26.	Thiruvalla	52	49	153	5986	40.1	39.83	163.72	59.1
27.	Changanassery	56	50	123	4502	46.2	45.90	164.03	53.7
28.	Kottayam	94	83	170	10829	78.9	78.34	224.80	54.3
29.	Ponkunnam	29	22	23	2515	27.9	27.38	46.87	55.1
30.	Palai	51	43	112	4025	43.6	43.36	113.73	54.2
31.	Erattupetta	31	28	67	3909	28.1	27.93	82.69	54.7
32.	Vaikom	33	28	12	1023	30.8	30.51	67.69	56.4
33.	Moovattupuzha	48	41	73	3528	53.3	53.11	144.75	56.8
34.	Thodupuzha	38	28	56	4351	25.2	25.09	40.20	56.0
35.	Kothamangalam	31	25	42	3024	30.5	30.43	52.19	57.0
36.	Ernakulam	64	56	111	8310	67.5	67.14	109.15	54.9

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
37.	Alwaye	75	64	157	5158	46.8	46.58	189.97	53.7
38.	North Parur	26	23	98	3567	17.9	17.87	35.28	53.6
39.	Perumbavoor	49	41	94	2947	44.3	44.14	142.53	53.7
40.	Chalakkudy	46	37	105	4012	44.9	44.77	131.73	54.6
41.	Mala	33	25	45	1184	30.2	30.13	62.32	53.7
42.	Trichur	48	37	77	5556	72.8	72.55	143.16	51.7
43.	Puthukkad	30	24	30	1060	13.2	13.13	65.56	58.9
44.	Guruvayoor	49	44	28	4007	64.5	64.39	67.09	55.1
45.	Ponnani	23	16	17	2694	26.8	26.61	26.89	55.8
46.	Perinthalmanna	24	20	19	3398	25.8	25.54	32.49	54.4
47.	Palghat	82	70	62	10362	97.7	87.20	117.20	56.6
48.	Malappuram	33	29	28	3177	32.1	31.93	39.45	54.8
49.	Kozhikode	93	77	87	6211	84.1	84.00	176.51	55.5
50.	Thamarassery	28	22	36	911	20.3	20.20	56.10	39.8
51.	Sultan Battery	163	140	154	7742	120.4	120.24	285.56	57.8
52.	Cannanore	74	61	80	6558	75.7	75.22	150.65	54.7
53.	Payyannur	38	31	45	2871	36.8	36.19	77.52	53.7
54.	Kasaragode	23	17	22	1976	24.7	24.44	27.28	55.3
Total		3219	2840	3839	171994	2749	2732.89	8181.31	55.1

APPENDIX 7.10

Kerala State Road Transport Corporation—Operational Ratios—1987-88

Sl. No.	Transport Unit	Average No. of buses held daily	Average Km. run per day per bus	Percentage vehicular utilisation	Average Route length	Average distance travelled by a passenger	Average Earnings per passenger	Earnings per km. of buses operated	Earnings per vehicle on road per day
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Parassala	53.3	327.9	85.5	37.0	15.1	147.2	404	1381
2	Neyyattinkara	93.9	287.1	88.3	26.8	12.7	112.2	394	1182
3	Poovar	50.9	275.2	78.7	25.7	11.0	99.1	329	905
4	Vizhinjam	56.5	282.3	77.7	58.8	11.4	105.3	406	1143
5	Kattakada	58.8	229.9	84.5	35.6	12.8	115.3	510	1192
6	Trivandrum Central	124.7	372.4	81.2	84.4	24.5	254.9	477	1807
7	Pappanamcode	100.3	193.8	87.7	12.1	7.9	67.2	431	835
8	Trivandrum City	155.5	174.9	84.0	14.4	7.5	59.9	420	733
9	Vikas Bhavan	77.9	204.7	85.7	15.1	7.9	66.2	385	809
10	Peroorkada	62.4	162.9	85.3	15.6	7.2	60.8	380	651
11	Nedumangad	91.5	282.4	85.6	32.4	12.1	108.2	360	1054
12	Kilimanur	96.5	340.8	76.4	33.7	14.2	136.5	368	1254
13	Attingal	60.5	305.4	82.8	35.9	14.5	137.1	451	1402
14	Quilon	96.5	293.8	84.0	35.7	16.9	162.6	482	1483
15	Kottarakkara	67.2	280.8	85.6	29.0	14.7	139.6	485	1405

Appendix 7.10 (Contd)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
16	Fenalur	45.6	299.3	78.9	37.6	13.9	133.1	447	1333
17	Puthanambhitta	52.3	329.6	76.6	48.1	21.0	215.1	488	1643
18	Adoor	23.9	292.81	81.1	37.5	11.2	107.7	462	1353
19	Karunagappally	41.3	284.4	80.7	48.6	13.4	122.7	471	341
20	Kayamkulam	70.5	258.6	80.7	41.5	13.5	129.8	488	1282
21	Harippad	19.8	325.9	78.3	28.6	19.0	185.2	549	1304
22	Mavelikkara	23.0	349.7	76.1	47.9	18.0	185.7	454	1589
23	Alleppey	74.0	302.4	85.5	34.0	13.3	122.2	471	1443
24	Sherthala	69.9	311.6	75.8	34.0	15.6	144.7	454	1416
25	Changanur	73.1	267.5	79.4	36.3	15.4	150.7	470	1257
26	Thiruvalla	50.9	249.7	83.9	37.9	12.4	118.2	486	1238
27	Changanasserry	..	..	85.3	36.6	14.7	142.5	511	1472
28	Kottayam	96.5	281.3	79.1	63.7	17.0	169.0	490	1361
29	Ponkunnam	28.3	327.5	77.3	109.0	26.4	274.7	481	1606
30	Palai	47.2	293.3	83.6	35.9	19.1	192.7	505	1516
31	Erattupetta	30.0	281.3	87.3	49.4	16.4	161.5	478	1392
32	Vaikom	31.3	315.4	84.9	85.3	21.7	218.5	485	1525
33	Muvattupuzha	58.7	314.8	78.5	48.3	15.6	154.8	478	1504
34	Thodupuzha	25.5	345.5	78.0	77.7	30.8	284.3	452	1569
35	Kothamangalam	28.4	372.2	78.8	72.0	24.4	253.5	475	1768
36	Ernakulam	61.1	399.1	73.8	74.9	27.1	288.1	492	1905
37	Alwaye	64.4	266.9	79.9	32.9	12.7	117.0	412	1099
38	North Parur	28.9	289.3	84.0	36.4	13.5	132.3	430	1243
39	Perambavoor	44.3	327.7	83.0	31.3	13.8	136.2	440	1441
40	Chalakkudy	51.3	276.2	84.6	38.2	16.0	152.1	447	1261
41	Mala	32.0	334.7	76.8	26.3	19.2	193.3	400	1338
42	Trichur	47.5	404.5	85.4	72.2	18.9	194.7	442	1787
43	Putiukkad	28.6	322.7	75.8	35.5	15.4	144.3	460	1484
44	Guruvayoor	50.9	409.3	84.5	143.1	38.8	420.9	438	1790
45	Ponnani	24.3	373.9	76.1	158.5	42.1	465.6	470	1755
46	Perinthalmanna	22.8	364.5	75.6	178.8	32.1	344.9	439	1595
47	Palghat	78.1	380.9	84.3	167.2	35.6	380.9	459	1748
48	Malappuram	31.2	323.1	86.5	113.5	33.0	354.9	438	1416
49	Kozhikode	101.1	276.2	82.2	71.4	20.6	208.9	439	1212
50	Tnamarassery	24.8	269.9	74.5	25.3	15.3	145.0	403	1084
51	Sultan Battery	147.1	269.9	76.7	53.7	15.2	143.7	412	1112
52	Cannanore	74.9	304.4	87.7	82.0	19.5	198.3	398	1242
53	Payyannur	39.3	295.2	85.2	63.8	18.9	188.3	403	1190
54	Kasargod	20.4	369.9	78.9	89.8	35.0	375.6	419	1550
Total		3100.5	293.4	82.1	44.1	15.1	152.2	452	1332

APPENDIX 7.11

Air Traffic (Indian Airlines) from Trivandrum and Cochin—1986-87 and 1987-88

Sector	Originating Traffic				Terminating Traffic			
	1986-87		1987-88		1986-87		1987-88	
	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Cochin-Madras	18199	55.35	22593	34.79	19406	190.48	21694	208.90
Cochin-Banglore	26081	106.35	24589	27.32	28533	216.41	24852	83.59
Cochin-Trivandrum	9464	61.88	8839	115.77	6765	185.15	7438	434.88
Cochin-Madurai	3496	15.79	NA	NA	3786	202.18	NA	NA
Cochin-Bombay	123134	743.79	120042	708.45	135791	422.60	134918	393.35
Cochin-Dabolin	4435	6.20	NA	NA	3931	21.95	NA	NA
Cochin-Delhi	11476	37.11	12700	34.90	11218	127.36	12913	123.67
Cochin-Goa	..	..	5403	3.86	..	..	5295	16.00
Sub-Total	196285	1026.47	194166	925.09	209430	1366.13	207110	1260.39
Trivandrum-Hyderabad	NA	NA	1198	1.77	NA	NA	1299	1.22
Trivandrum-Goa	NA	NA	2670	0.15	NA	NA	2251	6.05
Trivandrum-Madras	20442	88.47	19822	59.57	23481	324.14	22456	391.98
Trivandrum-Bangalore	7944	3.61	12789	18.17	7222	22.25	13665	62.72
Trivandrum-Cochin	6765	185.15	NA	NA	9464	61.88	NA	NA
Trivandrum-Trichy	2468	5.14	414	0.04	2502	114.32	595	33.53
Trivandrum-Colombo	8765	1.17	8089	0.23	8404	23.29	7666	7.92
Trivandrum-Male	9630	414.58	11438	493.50	11102	15.88	11288	11.77
Trivandrum-Bombay	68377	192.42	69568	331.05	82949	1301.68	79705	1294.33
Trivandrum-Dabolin	1612	0.31	NA	NA	1701	2.97	NA	NA
Trivandrum-Delhi	7569	1.25	8870	3.73	6802	111.44	8146	98.77
Sub-Total	133572	892.10	134858	908.21	153627	1977.85	147071	1908.29
Grand Total	329857	1918.57	329024	1833.30	363057	3343.98	354181	3168.68

APPENDIX 7.12

Number of passports issued by the Passport and Emigration offices of Cochin and Calicut during 1987-88

Year and Month	No. of fresh applications received			No. of passports issued			No. of emigration clearances granted		
	Cochin	Calicut	Total	Cochin	Calicut	Total	Cochin	Calicut	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1987									
April	5451	4260	9711	5070	4349	9419	490	541	1031
May	6062	5037	11099	6784	5020	11804	562	487	1049
June	6987	5903	12890	7046	5500	12546	470	495	965
July	8261	7001	15262	7047	6230	13277	234	555	789
August	6437	5647	12084	5364	5030	10394	307	607	914
September	6518	6624	13142	6136	5300	11436	369	632	1001
October	7893	6824	14717	6221	5480	11701	214	635	849
November	9088	7679	16767	6045	6210	12255	298	515	813
December	9038	9029	18067	3678	6020	9698	206	530	736
1988									
January	7352	8101	15453	3011	4000	7011	189	416	605
February	9034	6724	15758	11068	7190	18258	255	474	729
March	9427	6418	15845	13679	7600	21279	312	605	917
Total	91548	79247	170795	81149	67929	149078	3906	6492	10398

APPENDIX 7.13

Number of ships called at Cochin Port during 1986-87 and 1987-88 and their Net Registered Tonnage

Type of Vessel	No. of Ships		Net Registered Tonnage	
	1986-87	1987-88	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)
Tankers	206	193	2955634	3025240
Foodgrains Vessels	..	2	..	12165
Fertilizer Vessels	83	78	686355	686743
Container Vessels	217	172	1138503	903561
Other Vessels	285	271	994806	995030
Total	791	716	5775298	5622739

Source: Administration Report of Cochin Port Trust (1987-88)

Appendix 7.11

Number and Tonnage of Steamers and Sailing Vessels which called at the Minor and Intermediate Ports of Kerala during 1987-88

Sl. No.	Name of Ports	Coastal/Foreign	Steamers		Sailing vessels		Total	
			No.	Tonnage	No.	Tonnage	No. of vessels	Tonnage
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I. Intermediate ports:								
1.	Neendakara	C	..	..	..	..	..	..
		F	3	19354.49	..	..	3	19354.49
2.	Alleppey	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
3.	Calicut (including Beypore)	C	21	3108.00	254	30505.79	275	33613.79
		F	2	2048.00	8	1995.00	10	4043.00
II. Minor Ports:								
4.	Trivandrum	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
5.	Quilou	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
6.	Kodungalloor	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
7.	Ponnani	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
8.	Badagata	C	..	..	..	..	..	..
		F	..	..	8	..	..	..
9.	Azhikkal	C	..	..	93	7949.35	93	7949.35
		F	..	..	..	..	..	..
10.	Tellicherry	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
11.	Cannanore	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
12.	Kasaragode	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
13.	Kovalam/Vizhinjam	C	..	..	4*	1371.21	4	1371.21
		F	..	..	..	..	..	..
All Ports		C	21	3108.00	351	39826.35	372	42934.35
		F	5	21402.49	8	1995.00	13	23397.49
Grand Total 1987-88			26	24510.49	359	41821.35	385	66331.84
Total 1986-87		C	3	982.00	329	38195.00	332	39177.00
		F	7	40516.00	8	1950.00	15	42466.00
Grand Total 1986-87			10	41498.00	337	40145.00	347	81643.00

* Fishing Trawlers

Source: Directorate of Ports.

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APPENDIX 7.15

Number of Harbour Crafts Registered at the Intermediate and Minor Ports of Kerala during 1987-88

Sl. No.	Name of Ports	Cargo boats including barges	Canoes including boats	Mechanised fishing vessels	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Alleppey	..	..	192	..	192
2.	Calicut	6	..	42	1	49
3.	Neendakara	..	..	181	..	181
4.	Trivandrum	..	..	..	..	..
5.	Kovalam/Vizhinjam	..	..	..	..	..
6.	Kodungallor	..	..	397	..	397
7.	Ponnani	5	10	9	..	24
8.	Badagara	..	..	..	..	..
9.	Tellicherry	..	..	5	..	5
10.	Cananore	..	..	24	..	24
11.	Azhikkal	6	..	11	..	17
12.	Kasaragode	..	48	38	..	86
13.	Quilon	..	..	..	..	..
Total		17	58	899	1	975

Source: Directorate of Ports.

APPENDIX 7.16

Dredging conducted at the Intermediate and Minor Ports of Kerala during 1987-88

Name of Dredger	Capacity of the Dredger	Ports of Dredging	Quantity Dredged		Dredging done for others	
			Time in hours	Quantity dredged (M3)	Agency	Quantity dredged (M3)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. CSD Meena—Kerala	600M3/hour	(a) Cochin Udyogamandal Canal	140	No detailed measurement of dredging quantities have been made in most cases	..	Detailed measurement of dredging quantities have not been made in most cases
		(b) Cochin Port Trust (for Link Road Project)	559		Cochin port trust	
		(c) Beypore port	101		..	
		(d) Azhikkal	85		SILK	
2. CSD Neendakara	200M3/hour	(a) Kumbalam	199	The output of CSD Meena-Kerala varies from 300M3/hour to 600M3/hour and of Neendakara varies from 100M3/hour to 200M3/hour	Southern Railway	(The cost of dredging one C. M. with CSD Meena-Kerala will be Rs. 20 and by CSD Neendakara will be Rs. 11.
		(b) Neendakara Cargo Harbour	218			
		(c) Neendakara Fishing Harbour	185			
Total			1487			

Source: Directorate Ports.

APPENDIX 7.17

Name of Speed Post Centres

Inland	International
(1)	(2)
1. Agarthala	1. Australia*
2. Agra	2. Austria*
3. Ahmedabad	3. Baharain*
4. Banglore	4. Bangladesh*
5. Bhopal	5. Belgium
6. Bhuvaneswar	6. Egypt*
7. Bombay	7. France
8. Calcutta	8. F.R.G. (West Germany)
9. Chandigarh	9. Greece*
10. Cochin	10. Hong Kong*
11. Coimbatore	11. Iraq
12. Cuttack	12. Ireland
13. Delhi	13. Japan
14. Gaubatti	14. Luxumburg
15. Gwalior	15. Macan*
16. Hyderabad	16. Netherlands*
17. Imphal	17. Norway
18. Indore	18. Oman
19. Jaipur	19. Pakistan*
20. Jammu	20. Portugal
21. Kanchipuram	21. Rep: of Korea
22. Kanpur	22. Rwanda
23. Lucknow	23. Senigal*
24. Madras	24. Singapore
25. Madurai	25. Spain
26. Mangalore	26. Sweeden
27. Meerut	27. Switzerland*
28. Nagpur	28. Thailand*
29. Patna	29. Tunisia
30. Pune	30. Turkey*
31. Raipur	31. U.A.E.*
32. Salem	32. U.K.*
33. Shillong	33. U.S.A. *
34. Shimla	34. U.S.S.R.*
35. Silchar	
36. Srinagar	
37. Tirupathi	
38. Trichy	
39. Trivandrum	
40. Vadodara	
41. Varanasi	
42. Vijayawada	
43. Visakapattanam	

* Merchandise Service available.

APPENDIX 7.18

Growth of Post Offices in Kerala since 1975

Category	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Head Offices	29	44	51	51	51	51	51	50	50	50
Sub Offices and Departmental Sub-Offices	1219	1991	2035	2110	2126	2187	2026	2027	1971	1971
Branch Offices, Mobile Post Offices and Speed Post Centres	2774	2474	2440	2436	2501	2511	2674	2671	2727	2761
Total	4022	4512	4576	4647	4678	4749	4751	4748	4748	4782

Appendix 7.19

Average Area and Population served by each post office (District-wise) in Kerala as on 1-1-1981

Sl. No.	Name of Division	Name of District	Area served by each post office (sq. kms)	Population served by each post office
(1)	(1)	(2)	(3)	(4)
1.	Trivandrum North } " South }	Trivandrum	5.47	6474
2.	Quilon } Pathanamthitta }	Quilon Pathanamthitta	7.36	4480
3.	Mavelikkara	Alleppey	6.61	8246
4.	Thiruvalla	Alleppey Pathanamthitta	..	..
5.	Kottayam } Changanassery }	Kottayam	5.50	4233
6.	Idukki	Idukki	18.34	3520
7.	Ernakulam } Alwaye }	Ernakulam and Laksha Dwcep	6.62	6905
8.	Trichur } Irinjalakkuda }	Trichur	6.28	5050
9.	Palghat } Ottappalam }	Palghat	10.21	4657
10.	Malappuram } Tirur }	Malappuram	8.94	6052
11.	Calicut } Badagara }	Calicut Waynad and Mahe	6.08	5816
12.	Tellicherry } Calicut }	Waynad	..	..
13.	Tellicherry } Cannanore }	Cannanore, Wynad and Kasargode	8.90	5033
14.	Kasargode	Kasargode	..	..
	Total		8.13	5323*

*1981 Census population.

APPENDIX 7.20

Division-wise Statistics of Post-Offices as on 1-4-1988—Kerala Circle

Sl. No.	Name of Division	Head Offices	Sub Offices	F.D. Sub Offices	Branch Offices	Total
	(1)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum South	2	65	16	124	207
2.	Trivandrum North	2	76	8	108	194
3.	Quilon	3	83	33	107	226
4.	Pathanamthitta	3	62	47	143	255
5.	Mavelikkara	1	41	21	43	106
6.	Kottayam	3	80	44	137	264
7.	Alleppey	3	65	44	57	199
8.	Thiruvalla	2	58	29	54	143
9.	Alwaye	3	67	34	131	235
10.	Idikki	2	52	13	203	270
11.	Changanassery	2	46	12	92	152
12.	Ernakulam	2	76	8	57	143
13.	Irinjalakuda	2	62	23	102	189
14.	Trichur	3	103	33	156	295
15.	Palghat	3	86	21	116	226
16.	Ottappalam	1	52	23	137	213
17.	Calicut	2	74	14	199	289
18.	Malappuram (Manjeri)	2	44	21	163	230
19.	Tellicherry	1	43	8	136	188
20.	Cannanore	2	54	14	98	168
21.	Badagara	2	41	37	125	205
22.	Kasargode	2	36	28	182	248
23.	Tirur	2	51	23	91	167
	Mahe *	..	..	..	..	..
	LMA Island *	..	..	..	..	..
	Total	50	1417	554	2761	4782

* Mahe comes under Badagara Division and LMA Islands come under Ernakulam Division.

APPENDIX 7.21

Statistics relating to Telephone Exchanges in Kerala for the year 1987 and 1988

Telephone District/ Division	Number of Exchanges		Total equipped capacity		Total working connections		Total waiting list		Public Call Offices			
	As on	As on	As on	As on	As on	As on	As on	As on	As on April 1987		As on April 1988	
	April 1987	April 1988	April 1987	April 1988	April 1987	April 1988	April 1987	April 1988	Physically Handicapped persons	Others	Physically Handicapped persons	Others
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Trivandrum Phones District	3	3	20300	21500	19143	20297	5492	7290	16	197	17	207
2. Ernakulam Phones District	10	11	22228	25028	20428	23159	9837	9923	37	66	51	74
3. Calicut Phones District	2	2	11800	11800	11292	11292	4590	4590	20	86	20	86
4. Kerala Excluding the 3 telephones District	593	605	124493	137524	117458	130022	64837	75937	103	2419	103	2380
5. Kerala State including the 3 Telephone Districts (1+2+3+4)	608	621	178821	195852	168321	184770	84756	97740	176	2768	191	2747
Provisional												

APPENDIX 7.22

Income and Expenditure of the Kerala Tourism Development Corporation and Accommodation details in the Hotels of KTDC for the year 1987-88

Name of Hotel Unit	Number of beds available	Total Number of visitors		Occupancy Ratio	Annual Income in lakhs	Annual Expenditure in lakhs			
		Domestic	Foreign			Admini- stration	Operating	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Mascot Hotel	82	5050	246	37	59.20	28.21	32.70	60.91	
Aranya Nivas Hotel	52	4774	5050	43	34.37	10.62	14.42	25.04	
Periyar House	77	14178	2590	58	11.39	4.60	5.11	9.71	
Garden House	34	5307	..	40	2.97	2.23	1.48	3.71	
Guruvayoor Tourist Bengalow	90	10827	..	34	6.78	3.55	5.05	8.60	
Mangalya, Guruvayoor	40	4551	..	33	20.93	7.51	14.05	21.56	
Bolgatty Palace Hotel	22	893	1151	69	15.48	7.62	10.01	17.63	
Kumarakom Tourist Complex	8	657	51	24	3.47	1.51	1.70	3.21	
Airport Restaurant	..	..	..	..	7.81	5.37	3.90	9.27
Hotel Sabala—Kuttikanam	4	321	..	60	0.91	0.47	0.54	1.01	
Hotel Samudra	100	5994	4242	30	14.31	6.92	6.56	13.48	
Transport Division	..	..	..	..	23.41	9.74	17.46	27.20
Hotel Chaithram	176	8188	..	69	15.32	6.67	8.62	15.29	
Total		685	60740	13330	..	216.35	95.02	121.60	216.62

APPENDIX 8.1

Commodity-wise Value of Foreign Export Trade

Commodity	(Rs. in Crores)				
	1983-84	1984-85	1985-86	1986-87	1987-88
(1)	(2)	(3)	(4)	(5)	(6)
Tea	83.16	150.12	53.57	37.10	33.35
Pepper	37.10	47.87	150.44	191.65	233.65
Cardamom	2.43	15.75	10.20	3.99	0.56
Cashew Kernels	149.83	160.56	188.38	302.81	278.42
Coffee	71.10	87.97	131.67	112.84	111.35
Ginger	8.40	11.06	7.36	2.47	3.84
Sea Foods	140.75	145.05	114.28	167.11	187.47
Coir products	14.70	21.57	27.89	33.10	20.97
Miscellaneous	153.48	230.10	155.02	327.77	164.10
Total	660.95	870.05	839.31	1178.84	1033.71

Source: Cochin Port Trust.

APPENDIX 8.2

Exports through the Port of Cochin during 1985, 1986 and 1987

Commodity	Unit	For the year 1985 (January to December)		For the year 1986 (January to December)		For the year 1987 (January to December)	
		Quantity	Value in Rs.	Quantity	Value in Rs.	Quantity	Value in Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Coir Fibre	Qtls.	80	60198	..	..	14	13215
Do. Yarn	"	140600	146891822	118692	125662594	140665	142188652
Do. Ropes	"	4	7057	499	588852	463	607906
Do. Mats & Mattings	"	98713	152587513	123267	223736864	103623	190176794
Do. Other Products	"	139	185640	132	244040	262	435489
Aloe Yarn	"	..	..	..	..	92	187401
Do. Products	"	502	728555	138	469467	174	446161
Jute Products	"	236	978704	84	248472	197	552623
Grass Mats & Mattings	"	31	43811	104	128362	66	85862
Vine Baskets	"	..	..	..	..	165	221318
Hessian Cloth	"	..	..	..	..	8	29846
Ginger	"	52684	105072538	40162	47644305	14762	31084554
Do. Spent etc.	"	360	73790	480	161447	720	266384
Black Pepper	"	186206	697986214	432217	3151951914	297265	1893784197
Green Pepper etc.	"	..	..	..	..	7978	35126269
Pepper Spent, Atom, Husk etc.	"	2500	2195540	7532	7039631	4840	4035609
Turmeric	"	16978	34199184	17312	30675279	80771	29918845
Do. Spent etc.	"	..	..	..	..	1	845
Chillies	"	2508	4980099	4420	5344918	1773	2218830

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Cardamoms	Kgs.	550284	105015430	539810	75164233	156949	30106199
Tamarind	Qtls.	410	501814	86	225257	185	247877
Ottupuli(Kudampuli)	"	..	..	8	21129	5	15126
Cashew Kernels	"	347911	2095995793	375354	2599298022	335723	3091453141
Cashew Shell Liquid	"	12865	6933483	15089	7738331	31370	20072011
Coffee	Kgs.	37848942	1148383394	93085918	1345059874	47079045	1311072020
Tea	"	29749864	930055054	22988533	542126941	9615044	281292266
Tea Aroma	"	..	..	..	..	5	25824
Gumin Seeds	"	7450	94699	2000	47675	3000	102734
Fenugreek Seeds	"	5150	36711	..	..	4300	44057
Corriander Seeds	"	..	..	..	..	1500	26470
Fennel Seeds	"	350	4179	4000	51071	250	4420
Annatto Seeds	"	..	..	..	..	10000	400834
Amaltes Seeds	"	..	..	..	..	40000	247900
Cover Crop Seeds	"	192137	2511898	142555	1871108	111835	1741666
Chilly Seeds	"	..	..	5080	55140	..	..
Celery Seeds	"	20400	129188	..	..	..	..
Tamarind seeds	"	52500	132027	..	..	..	..
Ornamental Tree Seeds	"	241	14701	..	..	..	..
Sharking Rays etc.	"	..	..	25	25138	..	..
Batalnuts	"	3000	70283	..	..	201	3636
Peanuts	"	3168	92863	..	..	2000	61638
Frozen Frog Legs	Qtls.	9633	38040352	5335	24129532	..	..
Do. Shrimbs	"	227622	1178273176	231141	1354659508	259803	1660039168
Do. Lobster	"	5606	42959808	4114	35321740	2850	39918477
Do. Guttle fish etc.	"	41236	82142137	87785	196111147	58496	137099160
Do. Sheep/Buffalo Meat etc.	"	15894	19337976	5365	6543636	8647	10500290
Do. Other Sea Foods	"	5571	9664035	10517	230430066	23812	38039370
Canned Shrimps	Kgs.	20632	1063953	..	..	8832	373193
Do. Other Sea Foods	"	8240	323477	1135	55540	..	..
Dried Shrimps	"	5220	1334029	1640	149461	10731	2770517
Dried/Dehydred Sea Foods	"	148048	2717655	175887	3255901	147626	2676015
Live Crabs	"	495	4613	..	..	..	..
Food Stuffs	Qtls.	3004	4887392	1269	3402496	1672	4172509
Fruits & Products	"	67372	57118445	29715	22596057	4199	4015651
Coffee Husk etc.	Kgs.	8000	13518	..	..	..	..
Cardamom Husk etc.	"	2600	25189	..	..	..	..
Cocoa Beans	..	60000	1591715	12000	331923	..	..
Pickles & Curry Powders	Qtls.	17245	31027425	16048	33338650	8190	16025837
Pappadams	Kgs.	33741	1175380	121185	2067387	101841	1769921
Eggs	..	9850	159879	..	..	..	..

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Curry Leaves		..	..	..	..	200	6259
Rice	..	..	..	60500	318139	253300	1412919
Rice Husk etc.	..	..	..	..	..	23975	23954
Cinamon	..	..	..	..	..	1525	47205
Gum Oblibanam	..	..	..	..	..	2000	49711
Country Drugs	..	2347907	22064732	1119029	10623074	793544	5649733
Ayurvedic Medicines	..	5262	555449	46646	7838740	32493	11963910
Sea Shells/Fans etc.	..	4441	146015	610	48368	430	32161
Fertilizer	Qtls.	3084	1295659	4500	1474124	..	..
Ossein	..	28934	38430395	27208	55170001	32599	55099240
Cattle Feed	..	..	..	1100	2668112	..	..
C.P. Goods	Sqm.	59463966	547993091	45404631	419406779	26793432	329410162
Cotton/Polyster							
Yarn/Thread etc.	Kgs.	1162171	51652082	2453689	102357961	9065799	402406475
Cotton Made Ups	..	1832981	87053246	1074322	102378386	3467817	345629294
Raw Cotton	Qtls.	3484	6438104	409	9890644	120	763260
Cotton Waste	"	..	..	..	..	84517	5451226
Cotton Dhurries	Kgs.	..	..	61555	4642804	105652	5678869
Cotton Napkins	..	..	..	41478	3882735	142816	6867349
Surgical Dressings	..	213069	3063038	16816	436970	..	..
Cotton Combar	Qtls.	..	..	..	..	1278	1343464
Cotton Laces	Kgs.	42	302419	14	176827	669	405531
Silk Fabrics	..	3295	1480114	1385	861711	3912	191360
Woolen Druggets etc.	..	7458	1005599	7621	833865	2306	998307
Wet Grinder	..	..	..	293	15942	4098	130145
Wall Clock & Parts etc.	..	4640	191793	12097	255991	10982	530957
Water Meters	..	..	..	..	..	28	600
Metal Mfgs	Qtls.	16814	22953526	4759	8716860	8341	18395476
Machinery	..	17162	112643766	10274	114166537	15493	117254922
Pressure Cookers & Parts	Kgs.	3239	232285	..	..	1266	84566
Barbecus	..	6000	79429	16574	260337	..	..
Sewing Needles & Pins etc.	..	36395	5343855	35756	6429360	10636	1967094
Mole Killer	..	..	..	..	..	540	158461
Cycle Pump	..	..	..	7928	670393	1380	342796
Bras Belt Buckles	..	..	..	..	..	64	30600
Steel Wire Ropes	M.T.	..	..	299	2533253	98	875868
Platri Condencor	Kgs.	..	..	..	..	2409	144650
Space Project Equipments	..	..	..	1821	329525	1471	394160
Steel Furniture and parts	..	..	..	3650	399471	..	..

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sickles	Nos.	..	..	3000	59000	..	..
Vehicles	..	27	7264925	1	76311	3	869732
Trawler Yahat	1	1479555
Auto Dispension	Kgs.	..	..	5	1926	..	..
Electronic Goods	..	1165	25023	419	510397	301	86741
Electrical Goods	..	69511	3238514	37	3045	5630	58855
Spark Plug	..	224683	16321650	184238	15626998	..	..
T.A.G. Liquid	101	29350	91	27850
L.G. Oil	..	7185	8673727	17005	2249804	25311	36628706
Sandalwood Oil	..	6650	3697487	16404	29637241	17387	2729998
Centronilla Oil	10000	1112870
Fish Oil	52800	520420	..	..
Eucaliptus Oil	900	73850
Other Oil	..	56216	62599231	32320	23736485	25528	17569796
Vegetable & proteins	..	35700	906094	16616	257130	..	..
Olerosion of Goods	..	297522	82121778	375585	103566717	61501	142697956
Processed Food Colour	..	131300	273661	1400	338788	171	98111
Ingredients for Ice Cream	1000	140531
Perfumary Compound	540	526546	726	1676950
Globe Amarnath (Cut flowers)	..	4093	402818	33440	4519841	16275	1536065
Quinine Sulphate	5500	6881250
Bruome Sulphate	..	1194	39949	1022	851226	1278	1069261
Lead Sulphate	2	387
Samarian Concentrate	2150	2241860
Nimosa Concrete	30	39800
Tube concrete	1	4132
Didimium Carbonate	8000	177150	10000	227425
Cerrium Hidrate	1000	21002	14000	369832
Barriam Carbonate	50	90
Ferric Oxide	400	400
Synthetic Organic Dye Stuff	2000	283038
Incese Sticks etc.	..	161846	10477008	75404	8869128	89982	6455572
Cosmetic and Toilet Products	..	10312	308284	3567	116403	5625	206250
Toilet Soap	..	107477	3095413	163697	5164293	351431	8077734
Gum Aralic	2000	47646	..	..
Tooth paste	1427	39658	3174	193106
Potassium Carbonate	50745	435133	..	..
Silicon carbide	106300	964661
Rhodamine—B	1000	140531
Plastic Goods	..	2988	83069	4227	75000	250	49415
Marikkolunthu	2071	10677	..	..

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Vermiculi	..	..	..	141600	158195	..	..
Sugar (refined)	..	..	..	199600	548156	..	..
Books and Stationery	..	2461	102219	7060	431840	9886	506095
Nylon Fishing Nets	..	..	..	3298	205726	5579	1312812
Polythin Bags etc.	..	919	32505	..	..	..	..
Consumer Pack	..	..	..	..	..	6050	130467
Wood Veencers	..	865110	26788712	844098	31373858	440381	33044896
Sandalwood products	..	101950	6133232	96458	3625743	128736	9055035
Sandalood Flaks /Dust etc.	..	59250	146145	182350	866594	329330	1284887
Rosewood Products	M.T.	623	9741626	559	10463513	792	17345909
Teakwood Products	..	29	1721189	12	862158	2	69235
Musical Instruments & Parts	Kgs.	297561	10322932	431779	18160583	558644	22536034
Decorative Doors & Building Materials	..	..	..	54272	2201146	198553	4975794
Other Wood Products	M.T.	58	952348	78	1430560	32	993903
Cane /wooden Walking Sticks	Kgs.	..	..	4241	159100	1102	68937
Plywood and Hardboard etc.	Qtl.	2734	3113654	2178	2719223	17141	2402400
Industrial Cork sheets	Kgs.	6690	207834	396	34344	..	..
Toys and Sports Goods	..	13	863	3582	217200	1082	70159
Hooks	..	4890	410025	9938	865020	5225	357841
Handicrafts & Curios	..	215614	9507608	117293	6988716	127766	8785596
Palm Board	..	3539	69385	..	..	..	..
Palmyra	Otls.	17449	19907691	6018	6042196	7427	8963131
Household Utensils	Kgs.	170	2946	605	41469	568	30542
Vermicilies	Kgs.	6200	54734	..	..	..	..
Abrassive products	..	6024	254898	21690	425165	146220	663447
Aluminium Products	..	1433251	9977630	598553	3229110	240117	1709027
Petroleum products (Napha)	M.T.	..	..	..	..	11720	252949102
Tobacco Products (Beedies)	Kgs.	5812	486684	2475	327420	6714	659246
Imitation Jewellery	..	..	..	5800	28759	24	11484
Batteries	..	219284	21165148	1002466	25632978	2164974	59064416
Fire Works	..	..	..	..	..	1925	161043
Lapping Mandrells	..	12470	1161574	4000	394262	7500	663390
Magnesia Refractionery	..	13920	220737	..	..	..	..
Chemical Elements	..	1116840	3246793	1637571	5243738	2517781	5967413
Beverages	Ltrs.	263043	1918955	46400	456320	..	..
Tara Ethil -lead	M.T.	5	14400	..	..	..	..
Garnite	..	131	608690	4	51131	..	..
Garnet sand	..	3702	2234251	3193	1999701	2926	2051545
China Clay	..	2138	6698900	367	737107	268	829134
Bar: Earth products	..	2967	46551014	4692	64424198	3917	68610938

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Ilmenite/Silmenite sand	..	856	1219854	219	295040	207	258228
Carbon Black	3	9000
Refractions	13	2266982	2	74800
Monozite	..	500	2996254	300	268728	..	..
Titanium products	..	5	77369	..	..	..	..
Graphic Electrodes	Kgs.	20164	468794	..	..	..	..
Rubber (Raw & Mfgd)	..	50522	2054509	11300	2259982	2500	251140
Tyres, Tubes & Flaps	..	1332403	31073669	155999	3202260	1661653	39703524
Buffalo hair	Qtls.	1181	435031	1618	666322	352	175863
Goat hair	..	11771	4606288	14140	58311736	8137	3721365
Hides & Skins	Kgs.	106428	17890049	59319	12710924	15515	1583431
Foot Wears	..	29132	5028139	7169	935240	3431	631927
Other leather products	2360	819331
Sandal paste	..	8	10000	..	..	..	..
Bamboos	105	23046
Restored Dice mechanism	..	10	98800	..	..	..	..
Files & bricks	..	7500	21197	..	..	..	..
Fishings Rod handles	550	31397	..	..
Grinding Stone	1235	4350
Sundries	638535	..	109309
Total			8260246999	..	11137199980	..	10974470532

Source: Indian Chamber of Commerce & Industry, Cochin.

Appendix 8.3

Item-wise Marine Export from Kerala and India

Items	Kerala				India			
	1986-87		1987-88		1986-87		1987-88	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Shrimp	22816	13569.30	26892	16210.90	49188	37749.85	55726	42545.92
Lobster Tails	294	379.79	260	379.45	883	1093.84	835	1075.93
Cuttle fish	1638	395.16	2174	522.75	2907	705.37	6586	1386.31
Cuttle fish fillets	1231	553.54	632	188.55	1787	690.32	2609	845.02
Squids	6239	1222.84	3132	645.84	9739	1726.91	7621	1372.95
Fish	689	123.04	1818	263.90	12910	2203.53	14791	3009.90
Clams	756	103.80	510	102.84	756	103.80	510	102.84
Others	243	109.16	158	79.55	7673	1793.66	8501	2781.52
Total	33906	16456.63	35576	18393.78	85843	46067.28	97179	53120.39

Quantity in Metric Tonnes; Value in Rs. Lakhs.

Source: Marine Products Export Development Authority, Cochin.

Appendix 8.4

Container Traffic Handled during the year 1985-86, 1986-87 and 1987-88

(Tonnes)

Sl. No.	Commodities	1985-86			1986-87			1987-88		
		Export	Import	Total	Export	Import	Total	Export	Import	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Cashew Kernels	28412	..	28412	37508	..	37508	30257	..	30257
2.	Chemicals	5719	761	6480	5034	798	5832	6027	5219	11246
3.	Coffee	24435	..	24435	21090	..	21090	28416	..	28416
4.	Coir Products	22182	..	22182	20466	..	20466	21279	..	21279
5.	Fish	25806	..	25806	27076	..	27076	25975	..	25975
6.	Ginger	2009	..	2009	1439	..	1439	996	..	996
7.	Pepper	20137	..	20137	18418	..	18418	17808	..	17808
8.	C. P. Goods	11815	..	11815	7300	..	7300	11261	..	11261
9.	Tea	7388	..	7388	4959	..	4959	2981	..	2981
10.	Turmeric	1334	..	1334	1718	..	1718	1273	..	1273
11.	Rubber and Rubber Products	345	..	345	597	..	597	1508	..	1503
12.	Wheat	..	2557	2557	..	..	..	..	..	..
13.	Machinery	..	1865	1865	..	1287	1287	..	2417	2417
14.	Miscellaneous	28880	37333	66213	29294	34590	63884	39135	36956	70091
	Grand Total	178462	42516	220978	174899	36675	211574	180916	44592	225508

Source: Cochin Port Trust.
37/1052/MC.

Appendix 9.1

Educational Institutions—District-wise 1987-88

District	L. P. School				U. P. School				High School				Total			
	G	PA	PUA	Total	G	PA	PUA	Total	G	PA	PUA	Total	G	PA	PUA	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Trivandrum	307	182	17	506	99	105	7	211	115	94	17	226	521	381	41	943
Quilon	283	191	9	483	59	143	7	209	73	125	6	204	415	459	22	896
Pathanamthitta	172	243	13	428	42	84	8	134	47	113	5	165	261	440	26	727
Alleppey	201	199	15	415	68	78	2	148	55	126	4	185	324	403	21	748
Kottayam	177	281	23	481	66	130	4	200	58	166	12	236	301	577	39	917
Idukki	72	142	3	217	45	64	4	113	53	70	6	129	170	276	13	459
Ernakulam	198	280	18	496	88	101	13	202	85	173	23	281	371	554	54	979
Trichur	126	400	9	535	53	167	7	227	75	148	13	236	254	715	29	998
Palghat	195	351	10	556	54	159	6	219	56	74	8	138	305	584	24	913
Malappuram	343	478	4	825	108	225	4	337	81	73	5	159	532	776	13	1321
Kozhikode	188	538	1	727	77	241	6	324	64	94	7	165	329	873	14	1216
Wynad	69	52	5	126	32	40	1	73	33	22	2	57	134	114	8	256
Cannanore	129	623	5	757	68	278	..	346	80	71	1	152	277	972	6	1255
Kasaragode	146	115	4	265	69	73	..	142	64	33	1	98	279	221	5	505
Grand Total	2606	4075	136	6817	928	1888	69	2885	939	1382	110	2431	4473	7345	315	12133

G—Government.

PA—Private Aided.

PUA—Private Un-Aided.

Source: Directorate of Public Instruction.

Appendix 9.2

List of Uneconomic Schools—District-wise

Sl. No.	District	Number of Uneconomic Schools		Total
		Government	Aided	
(1)	(1)	(2)	(3)	(4)
1.	Trivandrum	30	13	43
2.	Quilon	13	4	17
3.	Pathanamthitta	44	74	118
4.	Alleppey	30	18	48
5.	Kottayam	16	37	53
6.	Idukki	28	24	52
7.	Ernakulam	24	35	59
8.	Trichur	14	11	25
9.	Palghat	9	9	18
10.	Malappuram	6	8	14
11.	Kozhikode	9	22	31
12.	Wynad	3	30	35
13.	Cannanore	35	64	99
14.	Kasaragode	17	23	40
	Total	278	372	650

Source: Directorate of Public Instruction.

APPENDIX 9.3

Number of students—Rural|Urban areas—School-wise during 1987-88

Category of Schools	Rural			Urban			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
L. P. Schools	770269	734677	1504946	94367	92147	186514	854636	826824	1691460
U. P. Schools	733889	691806	1425695	87235	76315	163530	821224	768121	1589245
High Schools	1032238	995878	2028116	220761	239659	460420	1252999	1235537	2488536
B.T.S.	5389	5635	11024	4480	3911	8391	9869	9546	19415
All Schools	2541785	2427996	4969781	406843	412032	818875	2948628	2840028	5788656

Source: Directorate of Public Instruction.

APPENDIX 9.4

Standard-wise Strength of Students (1987-88)

Standard	Government Schools		Private Aided Schools		Private Unaided Schools		Total		Total
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
I	136165	130092	175161	170833	9333	8469	320659	309394	630053
II	144609	136538	199456	190292	8429	8057	352494	334887	687381
III	142025	134435	193538	184692	8342	7742	343905	326870	670775
IV	138963	130572	187035	177962	7526	6827	333524	315361	648885
V	120275	111740	196945	186826	6692	5460	323912	304026	627938
VI	114664	105664	191564	183566	6597	5295	312825	294525	607380
VII	104333	98409	178790	177310	6472	4993	289595	280712	570307
VIII	107726	102118	157213	155071	5756	5020	270695	262209	532904
IX	97177	94900	143573	146246	5237	4615	245987	245761	491748
X	61784	64289	89186	98100	4062	3894	155032	166283	321315
Total	1167721	1108758	1712461	1670898	68446	60372	2948628	2840028	5788686

Source: Directorate of Public Instruction.

APPENDIX 9.5

Details of Teachers—Section-wise

Category of School	Number of Teachers											
	1986-87						1987-88					
	Government			Private*			Government			Private*		
	Trained	Un-trained	Total	Trained	Un-trained	Total	Trained	Un-trained	Total	Trained	Un-trained	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
I High School section	21310	139	21469	34390	157	34547	21619	145	21764	34544	135	34679
II Upper Primary section	20685	757	21442	36565	3267	39834	20992	712	21704	36701	3245	39946
III Lower Primary section	27854	1169	29023	42553	1606	44159	28076	1113	29189	43510	1607	45117
IV Training schools												
Training section	191	..	191	282	..	282	197	..	197	296	..	296
Attached U.P. Section	174	1	175	160	2	162	181	..	181	152	2	154
Attached L.P. section	187	2	189	109	2	111	194	..	194	113	..	113
Grand Total	70401	2088	72489	114059	5036	119095	71259	1970	73229	115316	4909	120305

*Including private unaided.

Source: Directorate of Public Instruction.

Appendix 9.6

District-wise priority List of School Buildings

District	High Schools (No.)	U. P. Schools (No.)	L. P. Schools (No.)	Total (No.)
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	61	53	91	205
2. Quilon	48	28	56	132
3. Alleppey	20	7	11	38
4. Pathanamthitta	16	4	10	30
5. Kottayam	29	13	11	53
6. Idukki	27	19	25	71
7. Ernakulam	27	19	27	73
8. Trichur	23	12	6	41
9. Palghat	7	21	18	46
10. Malappuram	55	69	109	233
11. Kozhikode	24	26	25	75
12. Wynad	19	21	20	60
13. Cannanore	54	41	55	150
14. Kasaragod	53	38	45	136
Total	463	371	509	1343

Source: Directorate of Public Instruction.

Appendix 9.7

Details of Enrolment under Vocational Education—Year-wise

Year	Boys	Girls	Total
(1)	(2)	(3)	(4)
1983-84	395	175	570
1984-85	1675	255	1930
1985-86	2108	527	2635
1986-87	2810	840	3650
1987-88	..	..	3625

Source: Directorate of Vocational Higher Secondary Education.

APPENDIX 9.8

Course-wise Intake under Vocational Education During 1987-88

Name of Courses	Intake (No.)
(1)	(2)
1. Agriculture (2 Courses)	1550
2. Livestock Management	
Poultry	250
Dairying	450
3. Fisheries (4 Courses)	550
4. Engineering and Technology	950
5. E.C.G. & Audiometric Technician	25
6. Physical Education	100
Total	3625

Appendix 9.9

Number of students appeared and passed in S.S.L.C. Examination from March 1980 to September 1987

Year	Month	Number of Students appeared			Number of students passed			Percentage of Pass		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1980	March	196114	186138	382252	79528	83222	162750	40.55	44.71	42.6
	September	25141	18654	43795	2731	2028	4757	10.86	10.87	10.9
1981	March	238249	228828	467077	89736	94705	18444	40.55	41.39	39.5
	September	17564	131343	30707	1991	1393	3384	11.34	10.60	11.0
1982	March	252468	240300	492968	94687	94101	188788	37.50	39.13	38.3
	September	11046	9401	20447	1402	1102	2504	12.69	11.72	12.2
1983	March	270490	248532	519022	101716	98759	200475	37.50	39.73	38.6
	September	9658	7843	17501	3815	2207	6022	39.50	28.14	34.4
1984	March	245252	250603	495855	84016	92794	176810	34.26	37.03	35.7
	September	10948	8246	19194	1947	1615	3562	17.78	19.58	18.6
1985	March	247605	240655	488260	100943	121147	222090	40.77	50.34	45.4
	September	7668	5941	13609	1419	1018	2437	18.51	17.14	17.9
1986	March	256367	241497	497864	114833	117860	232693	44.80	48.80	46.7
1987	March	233158	218273	451431	102339	103257	205596	43.90	47.31	45.5
	September	24137	23205	47342	10218	9141	19359	42.33	40.00	41.8

Source: D.P.I.

871052/MC.

APPENDIX 9.10

Number of Arts and Science Colleges in Kerala 1987-88

Sl.No.	District	No. of Colleges		
		Government	Private	Total
(1)	(2)	(3)	(4)	(5)
1	Trivandrum	8	11	19
2	Quilon	1	12	13
3	Pathanamthitta	..	8	8
4	Alleppey	..	11	11
5	Ernakulam	5	19	24
6	Kottayam	1	20	21
7	Idukki	1	4	5
8	Trichur	4	16	20
9	Malappuram	3	7	10
10	Palghat	3	7	10
11	Kozhikode	7	7	14
12	Wyanad	2	2	4
13	Cannanore	2	7	9
14	Kasaragod	3	1	4
Total		40	132	172

Source: Directorate of Collegiate Education.

APPENDIX 9.11

Sanctioned strength for different courses in Affiliated Colleges of Kerala & Calicut Universities

Arts & Social Sciences	Kerala	Calicut
(1)	(2)	(3)
<i>Graduate Level</i>		
Economics	1818	1999
Politics	495	220
Sociology	72	105
History	1045	1303
English	702	558
Malayalam	679	445
Hindi	319	266
Others	745	588
Total—Arts	5875	5484
<i>Science & Commerce</i>		
Mathematics	1175	1336
Physics	918	975
Chemistry	1048	1121
Botony	899	812
Zoology	981	968
Statistics	64	96
Others	152	190
Total—Science	5237	5498
Commerce	1270	1684
Total—Science & Commerce	6507	7182
Total—Graduate Level Strength	12382	12666
<i>Arts & Social Sciences—Post Graduate Level</i>		
Economics	180	222
Politics	20	25
Sociology	25	12
History	55	72
English	137	112
Malayalam	55	47
Hindi	55	12
Others	125	75
Total—Arts	652	577
<i>Science/Commerce/Social Works</i>		
Mathematics	130	200
Physics	70	30
Chemistry	60	78
Botony	78	56
Zoology	90	86
Others	16	58
Total—Science	444	508
Commerce	140	247
Social Works	25	..
Total—Science/Commerce/Social Works	1053	755
Total—Post-Grduate Level Strength	1705	1332

APPENDIX 9.12

Number of Polytechnics and Technical High Schools in Kerala

Sl. No.	District	Polytechnics						Technical High Schools	
		1986-87			1987-88			1986-87	1987-88
		Government	Private	Total	Government	Private	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1	Trivandrum	2	..	2	2	..	2	4	4
2	Quilon	..	1	1	..	1	1	2	2
3	Pathanamthitta	1	1	2	1	1	2	1	1
4	Alleppey	..	1	1	..	1	1	4	4
5	Kottayam	2	..	2	2	..	2	7	7
6	Idukki	1	..	1	1	..	1	2	2
7	Ernakulam	3	..	3	3	..	3	5	5
8	Trichur	2	2	4	2	2	4	4	4
9	Palghat	2	..	2	2	..	2	3	3
10	Malappuram	1	..	1	1	..	1	4	4
11	Kozhikode	3	..	3	3	..	3	3	3
12	Wynad	1	..	1	1	..	1	2	2
13	Cannanore	1	..	1	1	..	1	5	5
14	Kasargod	..	1	1	..	1	1	1	1
Total		19	6	25	19	6	25	47	47

Source:—Directorate of Technical Education.

APPENDIX 9.13

Number of Engineering Colleges, Students and Teachers—1986-87 and 1987-88

Type of Institutions	Number of Institutions		Enrolment						Teachers	
	1986-87	1987-88	1986-87			1987-88			1986-87	1987-88
			Boys	Girls	Total	Boys	Girls	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Government	3	3	3201	889	4090	3905	821	4726	429	459
Private	3	3	3516	758	4274	3896	968	4864	358	446
Quasi—Government	1	1	1060	238	1298	1111	283	1394	112	155
Total	7	7	7777	1885	9662	8912	2072	10984	899	1060

Source: Directorate of Technical Education.

APPENDIX 9.14

Students and Staff Strength in Polytechnics

Name of Institutions	Enrolment						Teachers*					
	1986-87			1987-88			1986-87			1987-88		
	Boys	Girls	Total	Boys	Girls	Total	Men	Women	Total	Men	Women	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Government	5608	1496	7104	5548	1936	7584	675	204	879	715	183	898
Private	2380	284	2664	2494	449	2934	370	49	419	349	48	397
Total	7988	2780	9768	8042	2385	10527	1045	253	1298	1064	231	1295

Source: Directorate of Technical Education.

APPENDIX 9.15

Students and Staff Strength in Technical High Schools

Year	Students			Teachers		
	Boys	Girls	Total	Men	Women	Total
	(2)	(3)	(4)	(5)	(6)	(7)
1986-87	7401	1250	8651	629	166	795
1987-88	7405	1246	8651	629	166	795

Source: Directorate of Technical Education.

APPENDIX 9.16

Intake and Out-turn in Engineering Colleges, Polytechnics and Technical High Schools

Year	Engineering Colleges				Polytechnics				Technical High Schools			
	No. of Institutions	Intake Sanctioned	Actual	Out-turn	No. of Institutions	Intake Sanctioned	Actual	Out-turn	No. of Institutions	Intake Sanctioned	Actual	Out-turn
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1970-71	6	836	716	602	18	2310	2183	713	21	1230	1010	302
1975-76	6	1027	991	779	18	2751	2765	765	21	1230	1140	391
1980-81	6	1535	1531	854	18	2640	2638	1156	25	1980	1718	685
1981-82	6	1910	1908	959	19	2773	2755	1254	25	2000	1726	691
1982-83	6	1960	1952	1003	20	2806	2796	1519	25	2180	1815	986
1983-84	6	1960	1958	1218	23	3086	3079	1678	34	2180	1941	1065
1984-85	6	1975	1971	760	25	3433	3232	2368	41	2180	1919	1093
1985-86	7	2514	2514	1014	25	3533	3404	2109	44	2480	2310	1074
1986-87	7	2514	2514	2073	25	3533	3404	2200	47	2570	2510	1371
1987-88	7	2524	2524	2098	25	3544	3544	2305	47	2570	2520	1475

Source: Directorate of Technical Education.

APPENDIX 9.17

Course-wise Intake and Out-turn in Engineering Colleges at Degree Level and at Post-graduate Level

Name of course	1984-85		1985-86		1986-87		1987-88	
	Intake	Out-turn	Intake	Out-turn	Intake	Out-turn	Intake	Out-turn
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Graduate</i>								
1. Civil Engineering	565	204	602	229	602	583	602	592
2. Mechanical Engineering	570	170	582	383	582	622*	582	582
3. Electrical	495	324	550	303	580	533	580	560
4. Electronics	135	2	320	49	300	126	300	130
5. Chemical Engineering	70	46	80	48	80	113*	80	75
6. Production-cum-Plant Engineering	25	14	30	9	30	31*	30	32*
7. Instrumentation and control system	20	..	30	11	30	31*	30	31*
8. Production Engineering	20	..	30	9	30	10	30	11
9. Applied Electronics and Instrumentation	20	..	40	..	40	14	40	15
10. Architecture	30	..	80	..	80	20	80	22
11. Industrial Engineering	15	..	20	..	20	15	20	16
12. Computer science	30	..	120	..	120	..	120	..
13. Production and Management	..	..	..	..	30	..	30	..
Total	1995	760	2484	1041	2524	2098	2524	2066

* Figures include the out-turn of previous years also.

Name of course	1984-85		1985-86		1986-87		1987-88	
	Intake	Out-turn	Intake	Out-turn	Intake	Outturn	Intake	Out-turn
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Post-graduate</i>								
1. Civil	34	21	34	29	37	..	37	..
2. Mechanical	33	11	33	11	42	..	42	..
3. Electrical	30	13	30	16	34	..	34	..
4. Electronics and Telecommunication	10	7	10	8	4	..	4	..
5. Chemical Engineering	6	..	6	..	6	..	6	..
Total	113	52	113	64	123	..	123	..

Source: Directorate of Technical Education.

Departments/Schools and Academic Programmes of the Cochin University of Science and Technology 1987-88

Name of Department/School (1)	Name of Course (2)	Intake (3)
1. School of Management Studies	1. MBA (Full time & Part time)	72
	2. M. Phil Commerce	6
2. Department of Physics	3. M.Sc. Physics	25
	4. M. Phil Physics	8
3. Department of Applied Chemistry	5. M.Sc. Applied Chemistry	17
	6. M.Sc. Biotechnology	10
	7. M. Phil Chemistry	20
4. Department of Industrial Fisheries	8. M.Sc. Industrial Fisheries	15
5. Department of Mathematics	9. M.Sc. Mathematics	15
	10. M.Sc. Statistics	15
	11. M. Phil. Mathematics	10
	12. M.Sc. Dr. & CA (Operations research and computer applications)	11
6. Department of Law	13. LL.M.	20
7. Department of Hindi	14. M.A. Hindi	20
	15. P.G. Diploma in translation and secretarial drafting & reporting in Hindi	20
	16. M. Phil Hindi	8
	17. B.Tech. (PS & RT)	18
8. Department of Polymer Science & Rubber Technology	18. M. Tech. (Polymer Technology)	12
	19. M. Tech. (Computer Science)	15
9. Department of Computer Science	20. M.Sc. (Computer software)	30
	21. M. Tech. Electronics	25
10. Department of Electronics	(a) Digital Electronics	
	(b) Microwave and Radar Electronics	
	22. Post B.Sc. Diploma in TV Technology & consumer Electronics	10
	23. B. Tech. (NA & SB)	20
11. Department of Ship Technology	24. M. Phil. (Applied Economics)	10
12. Department of Applied Economics	24. Diploma in German	25
	26. Diploma in Russian	25
13. Department of Foreign Languages	27. Certificate in Russian	25
	28. Certificate in German	25
	29. M.Tech. (Part-time) in Mechanical, Electrical Civil & Chemical Engineering	60
	30. M.Sc. Meteorology	10
14. School of Technology	31. M. Sc. Marine Geology	10
	32. M.Sc. Marine Biology	16
	33. M.Sc. Oceanography	10
	34. M. Phil Chemical Oceanographic	6
15. School of Marine Sciences	35. M.Sc. Mariculture	10
	36. M.Sc. Environmental studies	10
16. Central Marine Fisheries Research Institutes		
17. School of Environmental Studies		
Total Intake		664

Appendix 9.19

Total and per Capita State Government Expenditure on Education 1970-71 to 1980-81

Major States (1)	Total Expenditure (Rs. Crores)																Per capita (Rs.)															
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Kerala	60	217	248	271	314	354	425	493	28	85	97	106	123	139	167	193	85	97	106	123	139	167	193	85	97	106	123	139	167	193		
Punjab	30	139	146	165	191	217	241	263	22	83	87	98	114	129	144	157	83	87	98	114	129	144	157	83	87	98	114	129	144	157		
Gujarat	42	181	206	248	299	418	476	524	16	53	60	73	88	123	140	154	53	60	73	88	123	140	154	53	60	73	88	123	140	154		
Maharashtra	98	382	424	488	570	679	795	950	20	61	67	78	91	108	127	151	61	67	78	91	108	127	151	61	67	78	91	108	127	151		
Haryana	18	73	84	96	112	135	155	175	19	57	65	74	87	105	120	136	57	65	74	87	105	120	136	57	65	74	87	105	120	136		
Assam	25	97	100	116	191	187	221	275	17	49	50	58	96	94	111	138	49	50	58	96	94	111	138	49	50	58	96	94	111	138		
Tamil Nadu	73	242	273	351	385	451	564	568	18	50	56	73	80	93	117	117	50	56	73	80	93	117	117	50	56	73	80	93	117	117		
Karnataka	54	173	199	245	274	331	382	463	18	47	54	66	74	89	103	124	47	54	66	74	89	103	124	47	54	66	74	89	103	124		
Andhra Pradesh	62	231	279	345	432	478	539	681	14	43	52	64	81	89	101	127	43	52	64	81	89	101	127	43	52	64	81	89	101	127		
West Bengal	70	247	324	412	417	449	539	700	16	45	59	75	76	82	99	128	45	59	75	76	82	99	128	45	59	75	76	82	99	128		
Rajasthan	42	146	176	216	250	292	328	404	16	43	51	63	73	85	96	118	43	51	63	73	85	96	118	43	51	63	73	85	96	118		
Orissa	24	108	117	142	160	184	208	274	11	41	44	54	60	70	79	104	41	44	54	60	70	79	104	41	44	54	60	70	79	104		
Madhya Pradesh	49	172	202	241	295	341	388	465	12	33	39	46	57	65	74	89	33	39	46	57	65	74	89	33	39	46	57	65	74	89		
Bihar	48	236	301	361	385	434	538	503	9	34	43	52	55	62	77	72	34	43	52	55	62	77	72	34	43	52	55	62	77	72		
Uttar Pradesh	75	351	395	500	558	684	787	885	9	32	36	45	50	62	71	80	32	36	45	50	62	71	80	32	36	45	50	62	71	80		
Other States:																																
Sikkim	..	4	5	6	7	10	13	16	133	167	200	239	324	433	533	133	167	200	239	324	433	533	133	167	200	239	324	433	533	
Mizoram	21	25	
Nagaland	3	13	14	18	20	23	32	34	59	163	172	225	248	288	400	425	163	172	225	248	288	400	425	163	172	225	248	288	400	425		
Manipur	5	20	22	27	28	33	41	47	43	143	158	193	202	234	293	336	143	158	193	202	234	293	336	143	158	193	202	234	293	336		
Tripura	..	17	20	25	30	33	41	56	..	81	94	119	144	159	195	267	81	94	119	144	159	195	267	81	94	119	144	159	195	267		
Himachal Pradesh	4	45	48	54	62	71	80	98	11	105	112	126	143	164	186	228	105	112	126	143	164	186	228	105	112	126	143	164	186	228		
Meghalaya	2	10	11	12	16	19	23	29	17	77	87	92	121	133	164	207	77	87	92	121	133	164	207	77	87	92	121	133	164	207		
Jammu Kashmir	9	44	52	16	67	87	93	99	20	73	88	102	112	133	158	163	73	88	102	112	133	158	163	73	88	102	112	133	158	163		
All States	793	3148	3646	4400	5062	5902	6928	8026	15	47	53	64	74	87	102	119	47	53	64	74	87	102	119	47	53	64	74	87	102	119		

Source: CMIE—Basic Statistics Relating to the Indian Economy Volume 2, September 1988.

Appendix 9.20

Medical Institutions and Beds in Kerala—Category-wise 1987-1988

District	Hospitals		P. H. Centres including MCH		Dispensaries		T.B. Centres/Clinics		Leprosy Control Units	
	No.	Beds	No.	Beds	Units	Beds	No.	Beds	No.	Beds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Trivandrum	18	5704	53	288	23	78	1	28	1	..
Quilon	9	1423	52	294	4	15	3	79	1	..
Alleppey	11	3206	55	235	3	..	2	12	1	..
Pathanamthitta	5	511	37	251	4	..	1	12	..	..
Kottayam	13	2285	46	361	4	..	2	48	..	..
Idukki	3	218	12	94	22	77	..	..	..	..
Ernakulam	22	2642	60	511	14	18	4	40	..	..
Trichur	19	3150	61	358	17	30	1	..	1	..
Palghat	9	1042	18	183	31	70	1	54	1	..
Malappuram	6	922	27	114	26	38	2	52	2	..
Kozhikode	10	3943	52	165	4	12	1	..	..	..
Waynad	3	367	11	52	10	10	..	..	..	..
Cannanore	10	1542	54	215	19	61	1	..	..	..
Kasargode	3	257	39	153	7	..	1	..	..	..
Kerala	141	27212	577	3274	188	409	20	325	7	..

Appendix 9.20—Concd.

District	Community Health Centres		Subsidiary Health Centres		Grant-in-aid		Total	
	No.	Beds	No.	Beds	No.	Beds	No.	Beds
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Trivandrum	4	209	..	..	2	222	102	6529
Quilon	2	42	..	..	2	120	73	1973
Alleppey	1	40	..	..	4	450	77	3943
Pathanamthitta	2	163	..	..	3	564	52	1501
Kottayam	1	226	..	..	6	951	72	3871
Idukki	1	60	14	50	..	..	52	499
Ernakulam	3	129	..	..	3	456	106	3796
Trichur	1	82	..	..	2	170	102	3790
Palghat	1	83	26	163	1	..	88	1595
Malappuram	3	188	31	32	2	..	99	1346
Kozhikode	4	104	..	..	..	..	71	4224
Waynad	2	117	8	44	..	..	34	590
Cannanore	2	585	..	..	..	..	86	2403
Kasargode	2	198	..	..	..	..	52	608
Kerala	29	2226	79	289	25	2933	1066	36658

Source:—D.H.S.
37/1052/MC.

APPENDIX 9.21

Statement showing number of Attacks and Deaths due to principal Diseases during 1987-88

Name of disease	Patients treated during			
	1986-87		1987-88	
	Attack	Death	Attack	Death
1. Diphtheria	631	2	288	1
2. Dysentery	7,23,113	59	6,85,514	68
3. Whooping cough	16,079	2	11,155	3
4. Gastro-enteritis	44,074	82	50,340	181
5. Tetanus	286	30	165	42
6. Meningococcal Infection	1,656	15	393	17
7. Measles	48,094	10	43,028	16
8. Syphilis	1,425	..	1,091	..
9. Poliomyelitis	143	6	775	85
10. Gonococcal Infection	3,073	..	3,447	..
11. Tuberculosis	58,041	231	64,173	282
12. Rabies	883	31	390	40
13. Enteric fever	9,314	11	9,490	10
14. Chicken pox	11,879	8	11,996	6
15. Influenza	7,15,513	2	81,206	1
16. Encephalitics	1,810	84	2,014	99
17. Infective Hepatitis	14,716	41	15,130	25

Source:—D.H.S.

APPENDIX 9.22

Courses conducted in the Medical Colleges with respective number of Intake

Course	No. of Intake in Medical Colleges				
	Trivandrum	Calicut	Kottayam	Alleppey	Trichur
(1)	(2)	(3)	(4)	(5)	(6)
<i>Under Graduates</i>					
M.B.B.S.	200	200	100	100	100
B.D.S.	40	30	..	..	..
B. Pharm	28	..	..	..	..
B. Sc. (Nursing)	25	25	25	..	..
B. Sc. (MLT)	24	..	..	..	..
Nursing	30	30	..	..	..
<i>Post-graduate course in Nursing</i>					
M.Sc. (Nursing)	4	..	..	..	..

APPENDIX 9.23

Post-Graduate Degree/Diploma/Super Speciality Courses in the Medical Colleges

Sl. No.	Name of Course	Trivandrum	Number of seats Calicut	Kottayam	Alleppey
(1)	(2)	(3)	(4)	(5)	(6)
<i>Post-Graduate Degree</i>					
1.	M. D. Anaesthesia	4	1	2	..
2.	M. D. Bio-Chemistry	2	2	..	..
3.	M. D. Forensic Medicine	2	2	..	..
4.	M. D. Dermatology and Venerology	2	4	3	..
5.	M. D. General Medicine	13	12	8	2
6.	M. D. Micro-biology	2	2	..	..
7.	M. D. Obstetrics & Gynaecology	8	8	4	..
8.	M. D. Pathology	6	2	3	..
9.	M.D. Pharmacology	4	2	..	..
10.	M.D. Physiology	2	3	2	..
11.	M. D. Paediatrics	6	5	3	..
12.	M. D. Psychiatry	..	2	..	..
13.	M. D. Radio Diagnosis	2	..	..	..
14.	M.D. Radiotherapy	2	..	..	..
15.	M.D. Community Medicine	3	2	2	..
16.	M.D. T.B. & Respiratory Diseases	2	2	..	..
17.	M. S. Anatomy	2	2	2	..
18.	M. S. E. N. T.	2	2	2	..
19.	M. S. General Surgery	20	12	8	2
20.	M. S. Orthopaedics	4	4	..	..
21.	M. S. Ophthalmology	4	4	2	..
<i>Diploma Courses</i>					
1.	Diploma in Anaesthesia	8	6	6	..
2.	Diploma in Child Health	6	12	6	..
3.	Diploma in Clinical Pathology	3	6	..	..
4.	Diploma in Dermatology and Venerology	..	2	..	..
5.	Diploma in Laryngology and Otology	8	6	2	..
6.	D. M. R.D.	2	2	..	..
7.	D. M. R. T.	2	2	..	..
8.	Diploma in Obstetrics and Gynaecology	12	12	9	..
9.	Diploma in Ophthalmology	3	6	4	..
10.	Diploma in Orthopaedics Surgery	8	6	..	..
11.	Diploma in Physical Medicine and Rehabilitation	4	..	..	..
12.	Diploma in Psychiatric Medicine	6	..	..	..
13.	Diploma in Public Health	12	..	..	..
14.	D.T.C.D.	2	2	..	..
<i>Super Speciality Courses</i>					
1.	Mch. (Paediatric Surgery)	2	2	..	..
2.	Mch. (Plastic Surgery)	2	2	..	..
3.	Mch. (Genito Urinary Surgery)	2	2	1	..
4.	Mch. (Thoracic Surgery)	2	2	..	..
5.	Mch. (Neuro Surgery)	2	..	..	..
6.	DM. (Gastro Enterology)	1	..	..	..
7.	DM (Neurology)	1	..	..	..
8.	DM (Cardiology)	2	..	..	..

APPENDIX 9.24

District-wise Distribution of Institutions, beds and patients treated under Ayurveda during 1987-88

District	No. of Hospitals	No. of beds	No. of Dispensaries	No. of Institutions	No. of patients treated		
					Inpatients	Out-patients	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	12	225	47	59	3289	5,41,686	5,44,975
Quilon	9	170	35	44	1879	4,31,345	4,33,224
Pathanamthitta	4	80	22	26	534	2,13,745	2,14,279
Alleppey	10	180	34	44	1935	4,93,589	4,95,524
Kottayam	8	150	24	32	1208	3,20,510	3,21,718
Idukki	3	70	21	24	904	1,76,320	1,77,224
Ernakulam	11	180	45	56	2385	5,57,974	5,60,359
Trichur	14	223	63	77	2611	516,490	519,101
Palghat	5	120	45	50	1648	1,67,446	1,69,094
Malappuram	10	160	50	60	2017	3,62,653	3,64,670
Kozhikode	5	100	31	36	931	1,62,395	1,63,326
Wayanad	1	10	15	16	332	38,493	38,825
Cannanore	5	111	37	42	1135	2,22,931	2,24,066
Kasaragode	4	50	27	31	462	91,531	91,993
Total	101	1829	496	597	21,270	42,97,108	43,18,378

Source : I.S.M. Directorate.

APPENDIX 9.25

District-wise Distribution of Institutions, Beds and patients treated under Homoeopathy during 1986-87 and 1987-88

District	No. of Hospitals		No. of beds		No. of Dispensaries		Total No. of Institutions		No. of patients treated during 1987-88		
	1986-87	1987-88	1986-87	1987-88	1986-87	1987-88	1986-87	1987-88	In-patients	Out-patients	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Trivandrum	4	4	150	150	26	26	30	30	2,399	1,300,961	1,303,360
Quilon	1	1	25	25	19	19	20	20	397	9,27,155	9,27,552
Pathanamthitta	..	..	..	..	8	8	8	8	..	2,11,199	2,11,199
Alleppey	3	3	75	75	21	21	24	24	1,224	12,33,695	12,34,919
Kottayam	3	3	140	140	19	19	22	22	2,329	9,21,530	9,23,859
Idukki	2	2	50	50	17	17	19	19	434	5,31,837	5,32,271
Ernakulam	2	2	50	50	91	31	33	33	850	1,351,529	1,352,379
Trichur	1	1	25	25	20	20	21	21	289	5,76,588	5,76,877
Palghat	1	1	25	25	16	16	17	17	220	4,01,039	4,01,259
Malappuram	2	2	50	50	25	25	27	27	561	1,000,575	1,001,136
Kozhikode	1	1	25	25	21	21	22	22	698	7,01,572	7,02,270
Wayanad	1	1	25	25	6	6	7	7	58	1,32,693	1,32,751
Cannanore	1	1	25	25	18	18	19	19	248	4,68,619	4,68,867
Kasargode	2	2	50	50	8	8	10	10	210	1,91,167	1,91,377
Total	24	24	715	715	255	255	279	279	9,917	99,50,159	99,60,076

Source: Directorate of Homoeopathy.

APPENDIX 9.26

District-wise Details on Family Welfare Programme 1987-88

District	Vasectomy	P. P. PS.				I. U. D.			Nirod Supplied C.C.	Oral Pills	Induced Abortion
		P.P.S.	Minilap	Laproscopic	Total (Cols. 3 to 5)	L.I.	Cu't'	Total (Col. 7&8)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Trivandrum	336	11318	4877	2574	20769	..	8581	8581	1280499	39340	
Quilon	134	11605	1239	2542	15386	..	5878	5878	852074	37072	
Pathanamthitta	129	3694	1088	2016	6798	34	3599	3633	322202	11616	
Alleppey	1144	6648	3089	1436	11173	..	6358	6358	766305	17947	
Kottayam	358	10119	379	4386	14884	..	10009	10009	1218758	21868	
Idukki	166	3752	638	1970	6360	..	3935	3935	390513	10076	N.A.
Ernakulam	510	14906	443	3155	18504	21	9593	9614	1095991	29220	
Trichur	531	13398	2925	3072	19395	..	7550	7550	2229630	30693	
Palghat	167	10827	605	6147	17579	..	5740	5740	934921	26639	
Malappuram	195	12288	982	3524	16794	..	8133	8133	1176128	60559	
Kozhikode	1288	14431	2272	2316	19019	..	6655	6655	730177	36336	
Wayanad	221	2510	351	1546	4407	..	3381	3381	465523	9140	
Cannanore	302	10478	495	2885	13858	1	4932	4933	561212	24580	
Kasargode	175	2819	83	1814	4716	..	1130	1130	283383	8911	
Total	5656	130793	19466	39383	189642	56	85474	85530	12307316	363997	N.A.

Source : Directorate of Health Services.

APPENDIX 9.27

Target and Achievement of Family Welfare Programme

Item	Unit	Target for 1987-88	Achievement upto 3/88
(1)	(2)	(3)	(4)
1. Family Welfare Programme			
(a) Sterilisation (Vasectomy-Tubectomy)	Nos.	215,000	1,95,298
(b) I.U.D. Insertion	"	121,000	85,530
(c) C. C. Users	"	1,50,000	169,993
(d) O. P. Users	"	40,000	28,000
(e) P. H. Centres	"	150	150
(f) Sub-Centres	"	500	500
2. National T. B. Control Programme			
(a) No. of T. B. Cases detected	"	45,000	33,684
(b) No. of Sputum examination	"	107,400	98,475
3. National Leprosy Eradiction Programme			
(a) No. of new cases recorded	"	10,000	9,385
(b) No. of cases brought under treatment	"	10,000	8,064
(c) No. of cases detected	"	6,000	6,565
4. National Programme for Control of Blindness			
(a) No. of Cataract Operations	"	25,000	17,056
(b) No. of other operations	"	..	41,323
5. M. C. H. Programmes			
(a) Immunisations Programme			
(i) D.P.T.	"	5,46,400	551,106
(ii) D.T.	"	4,00,000	316,978
(iii) T. T. (Pregnant Women)	"	6,02,200	608,678
(b) Prophylaxis against Nutritional Anaemia			
(i) Women	"	68,000	562,190
(ii) Children	"	6,91,000	628,965
C. Blindness due to Vitamin A deficiency	"	16,00,000	1,318,705

Source: Directorate of Health Services.

Appendix 9.29

Rural Water Supply: 1st April 1981

	Total No. of inhabited villages 1981	Problem villages uncovered as on 1st April 1980				Total	Problem villages covered during 1980-85	Problem villages uncovered as on 1 April 1985	Col. 7 as % of col. 1
		Criteria I	Criteria II	Criteria III					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
<i>Major States</i>									
Assam	21,9950	4,467	9,740	1,536	15,743	8,654	7,087	32.2	
West Bengal	38,024	12,818	9,360	3,065	25,243	15,628	9,615	25.3	
Haryana	6,745	952	2,488	..	3,440	2,122	1,318	19.5	
Rajasthan	34,968	9,321	7,009	3,473	19,803	16,043*	3,760	10.8	
Punjab	12,342	367	1,400	..	1,767	537	1,230	10.0	
Gujarat	18,114	4,219	1,099	..	5,318	4,492*	826	4.6	
Orissa	46,553	15,420	2,499	5,697	23,616	22,357*	1,259	2.7	
Maharashtra	39,354	11,220	841	874	12,935	12,016*	919	2.3	
Madhyapradesh	71,352	24,909	21	14	24,944	23,845*	1,099	1.5	
Bihar	67,546	11,526	3,455	213	15,194	14,172*	1,022	1.5	
Kerala	1,219	1,011	122	25	1,158	1,142*	16	1.3	
Uttar Pradesh	1,12,566	19,237	1,649	7,619	28,505	27,143*	1,362	1.2	
Andhra Pradesh	27,379	5,217	2,355	634	8,206	8,094*	112	0.4	
Karnataka	27,028	13,352	1,936	168	15,456	15,443*	13	..	
Tamil Nadu	15,831	3,981	1,343	1,325	6,649	6,649*	..	..
<i>Other States</i>									
Meghalaya	4,902	2,927	..	..	2,927	690*	2,237	45.6
Jammu & Kashmir	6,477	4,672	..	26	4,698	2,028	2,670	41.2	
Nagaland	1,112	570	78	1	649	424	225	20.2	
Manipur	2,035	1,178	..	34	1,212	819*	393	19.3	
Sikkim	440	296	..	..	296	212*	84	19.1
Himachal Pradesh	16,807	7,815	..	..	7,815	4,997*	2,818	16.8
Tripura	865	681	1,097	1,022	2,800	2,486	314	..	
<i>Union Territories</i>									
Mizoram	721	214	..	..	214	127*	87	12.1
Arunachal Pradesh	3,257	1,239	..	501	1,740	1,467	273	8.4	
Pondicherry	291	74	44	..	118	111	7	2.4	
Andaman	491	154	19	..	173	173*	..	..
Delhi	214	..	99	..	99	89	..	..
Goa, Daman & Diu	412	58	8	..	66	64	..	..
Chandigarh	24	..	..	..	..	..	..	..
Dadra & Nagar Haveli	70	..	..	..	..	..	..	..
Lakhadweep	7	..	..	..	..	..	..	..
All India	5,79,132	1,57,895	46,662	26,227	2,30,784	1,92,024	38,748	6.7	

* Includes partially covered problem villages.

Source: CMIE Basic statistics relating to Indian Economy Vol. 2. September 1988.

Appendix 9.30

Percentage of Population covered under potable Water Supply & Sanitation As on March end 1985

	(Per cent)			
	Potable Water Supply		Sanitation	
	Rural	Urban	Rural	Urban
<i>Major States</i>				
Andhara Pradesh	71.4	52.1	1.7	10.9
Assam	71.4	37.5	0.9	15.7
Bihar	77.8	59.5	3.7	22.9
Gujarat	79.7	83.2	0.2	38.0
Haryana	57.8	69.1	..	28.4
Karnataka	82.9	81.2	0.2	38.4
Kerala	40.8	64.5	1.6	28.2
Madhya Pradesh	62.7	79.7	..	7.8
Maharashtra	51.0	87.1	..	39.8
Orissa	82.0	38.1	..	9.5
Punjab	23.8	71.2	..	48.5
Rajasthan	58.7	56.0	..	9.6
Tamil Nadu	46.8	83.8	0.2	47.5
Uttar Pradesh	28.3	70.1	..	14.1
West Bengal	52.5	63.7	0.1	19.5
<i>Other States</i>				
Himachal Pradesh	59.5	89.1	..	13.7
Jammu & Kashmir	62.7	86.6	0.1	7.7
Manipur	67.6	51.5	0.1	0.8
Meghalaya	35.1	22.1	..	..
Nagaland	65.9	46.7	0.3	..
Sikkim	43.3	89.0	..	32.9
Tripura	65.6	51.5	..	13.2
<i>Union Territories</i>				
Andaman	94.7	100.0	7.7	55.0
Arunachal Pradesh	90.2	88.5	0.2	38.5
Chandigarh	52.6	100.0	52.6	100.0
Dadra & Nagar Haveli	84.1	76.5	..	..
Delhi	100.0	98.1	..	73.4
Goa, Daman & Diu	44.2	81.9	..	13.3
Lakshadweep	45.8	..	..	..
Mizoram	64.3	7.6	43.7	1.5
Pondicherry	100.0	76.3	1.0	39.9
All India	56.2	72.9	0.7	28.4

APPENDIX 9.31

Expenditure on sewerage and water supply in the State-plan and Non-Plan

(Rs. in lakhs)

Year	Water supply Scheme						Sewerage/Drainage scheme			Grand Total
	Urban Water Supply			Rural Water Supply			Plan	Non-Plan	Total	
	Plan	Non-Plan	Total	Plan	Non-Plan	Total				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1980-81	918.20	451.27	1369.47	660.95	84.47	745.42	126.29	13.81	140.10	2254.99
1981-82	824.74	564.48	1389.22	1133.25	116.17	1249.42	171.34	21.60	192.94	2831.58
1982-83	651.14	519.88	1171.02	1565.41	136.24	1701.65	189.48	26.89	216.37	3089.04
1983-84	951.69	567.02	1518.71	4227.31	168.84	4396.15	290.85	27.02	317.87	6232.73
1984-85	714.02	855.02	1569.04	1649.28	..	1649.28	261.73	..	261.73	3480.05
1985-86	1284.59	1313.52	2598.11	1628.42	..	1628.42	254.43	..	254.43	4480.96
1986-87	555.62	2000.49	2556.11	2033.80	314.10	2347.90	254.94	43.55	298.49	5202.50
1987-88	410.00	1600.00	2010.00	3278.98	350.00	3628.98	631.57	42.00	673.59	6312.57
(Provisional)										

APPENDIX 9.32

District-wise number and seat strength of Government ITIs and Private ITCs in the State (1988-89)

Sl. No.	District	Number of Institutions			Seat strength		
		Government ITIs	Private ITCs	Total	Government ITIs	Private ITCs	Total
(1)		(2)	(3)	(4)	(5)	(6)	(7)
1.	Trivandrum	4	33	37	2760	2688	5448
2.	Quilon	2	23	25	952	3304	4256
3.	Pathanamthitta	1	26	27	176	2420	2596
4.	Alleppey	1	35	36	760	4052	3292
5.	Idukki	1	5	6	224	368	592
6.	Kottayam	2	19	21	884	2316	3200
7.	Ernakulam	1	38	39	728	4796	5524
8.	Trichur	2	18	20	964	1444	2408
9.	Malappuram	1	6	7	232	332	564
10.	Waynad	1	1	2	48	64	112
11.	Palghat	1	5	6	696	336	1032
12.	Kozhikode	3	10	13	880	732	1612
13.	Cannanore	1	8	9	840	464	1304
14.	Kasargod	1	1	2	48	64	112
Total		22	228	250	10192	23380	39572

APPENDIX 10.1

Disposal of Cases Relating to Tenancy and Kudikidappu

Sl.No.	Item	Tenancy		Kudikidappu	
		As on 30-11-1987	As on 30-11-1988	As on 30-11-1987	As on 30-11-1988
(1)	(2)	(3)	(4)	(5)	
1.	Total number of applications filed	3868434	3885966	464027	466105
2.	Disposal of Cases				
	(i) Allowed	2579083	2588901	283151	284203
	(ii) Rejected	804441	808476	157957	158569
	(iii) Other disposals	475814	476325	20302	20349
	Total	3859338	3873702	461410	463121
3.	Balance of applications to be disposed of	9096	12264	2617	2984
4.	Number of Certificates of purchase issued	255029	2557962	281538	271080

Source: Land Board, Kerala.

Appendix 10.2

Distribution of Surplus Land

Sl.No.	Item	Unit	As on 30-11-1987	As on 30-11-1988
(1)	(2)	(3)	(4)	(5)
1.	Total Ceiling returns filed	No.	70332	70530
2.	Total Ceiling returns decided	"	69251	69641
3.	Balance to be decided	"	1081	889
4.	Area ordered to be surrendered	Area	126195*	160099
5.	Area reduced on orders of High Court	"	..	32128
6.	Net extent of land ordered for surrender	"	126195	127971
7.	Extent of land taken over	"	89587*	91562
8.	Area reconveyed on order of High Court	"	..	..
9.	Net extent taken over	"	89587	91562
10.	Balance extent to be taken over	"	36608	36409
	(i) Covered by stay against taking possession	"	23709	20751
	(ii) Net to be taken over by gift, dispute, vested forest etc.	"	11701	11993
	(iii) Extent available for taking over	"	1198	3665
11.	Surplus land distributed	Acres	59651	61159
12.	Balance extent taken over pending distribution	"	29936	30403
	(i) Covered by stay against assignment	"	3916	3804
	(ii) Not distributed due to gift, vested forest etc.	"	4859	4706
	(iii) Reserved for Public purposes	"	19959	20205
	(iv) Available for distribution	"	1202	1698

* Reconciled figures

Source: Land Board, Kerala.

APPENDIX 10.3

Beneficiaries of Surplus Land and Extent Distributed (as on 30-11-1988)

(Acres)

District	Scheduled Castes		Scheduled Tribes		Others		Total	
	Number	Extent	Number	Extent	Number	Extent	Number	Extent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Trivandrum	3017	329	..	..	2320	268	5337	597
2. Quilon	3389	778	..	..	3188	814	6577	1592
3. Pathanamthitta	330	86	..	..	394	68	724	154
4. Alleppey	3559	2048	27	4	3793	2203	7379	4255
5. Kottayam	2377	1235	72	57	2805	1228	5254	2520
6. Idukki	2186	2026	353	312	2317	2112	4856	4450
7. Ernakulam	3505	715	29	5	2125	395	5659	1115
8. Trichur	6474	1339	50	50	11122	2149	17646	3538
9. Palghat	10988	5366	1160	935	10952	5982	23100	12283
10. Malappuram	6461	3046	34	12	5885	3637	12380	6695
11. Kozhikode	3520	1136	240	101	4650	1179	8410	2416
12. Wayanad	1243	468	2482	1506	2598	1307	6323	3281
13. Cannanore	2897	2160	1696	1409	6972	5383	11565	8952
14. Kasaragod	3447	3097	709	638	6405	5576	10561	9311
State	53993	23829	6852	5029	65526	32301	125771	61159

Source: Land Board, Kerala.

Appendix 10.4

District-wise distribution of beneficiaries and area of purnaboke land assigned upto 31-12-1988 under Land Reforms measures (in hectares)

District	Total area assigned in hectares	Of which area assigned to SC/ST	No. of families benefitted	Of which SC/ST	Percentage of SC/ST beneficiaries
(1)	(2)	(3)	(4)	(5)	(6)
Trivandrum	9316	1043	41877	6905	16.49
Quilon	16245	2335	77928	12965	16.64
Pathanamthitta	9338	908	35680	6026	16.89
Kottayam	3276	873	13718	4121	30.04
Alleppey	1776	162	17337	2899	16.72
Idukki	63560	7803	86032	21287	24.74
Ernakulam	9990	1300	55327	7360	13.30
Trichur	10181	1381	36471	4935	13.53
Palghat	314	97	1995	1671	83.76
Malappuram	877	329	5526	495	8.96
Kozhikode	56	24	840	119	14.17
Wayanad	13355	1777	28147	3328	11.82
Cannanore	259	51	2008	351	17.46
Kasargod	43780	8740	101511	24380	24.01
Total	182323	26823	504397	96842	19.20

Appendix 10.5

District-wise Distribution of Surplus land upto 31-12-1988

Sl.No.	District	No. of Beneficiaries				Land distributed (in hectares)			
		Scheduled Castes	Scheduled Tribes	Others	Total	Scheduled Castes	Scheduled Tribes	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1.	Trivandrum	3017	..	2320	5337	133	..	109	242
2.	Quilon	3989	..	3180	6577	315	..	329	644
3.	Pathanamthitta	330	..	394	724	34	..	28	62
4.	Alleppey	3559	27	3793	7379	829	2	892	1723
5.	Kottayam	2377	75	2805	5257	501	23	497	1021
6.	Idukki	2186	353	2317	4856	820	126	855	1801
7.	Ernakulam	3505	29	2125	5659	289	2	160	451
8.	Trichur	6642	50	11132	17824	546	21	874	1441
9.	Palghat	11029	1163	10972	23164	2175	379	2424	4978
10.	Malappuram	6913	34	6199	13146	1262	5	1502	2769
11.	Kozhikode	3549	240	4679	8468	460	41	477	978
12.	Wynad	1243	2482	2598	6323	189	610	529	1328
13.	Cannanore	2910	1703	7022	11635	879	370	2183	3632
14.	Kasaragod	3448	709	6405	10562	1255	258	2258	3771
Total		54097	6865	65949	126911	9687	2037	13117	24841

Appendix 11.1

Public Sector Banks Advance to Priority Sectors

	June 1969			June 1986		
	Aggregate advances	Priority sector Advances	Percentage share of priority sector advances to aggregate advances	Aggregate advances	Priority Sector advances	Percentage share of priority sector advances to aggregate advances
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Major States						
1. Andhra Pradesh	122	34	27.9	3,729	2,073	55.6
2. Assam	13	2	15.4	516	265	51.4
3. Bihar	52	5	9.6	435	926	64.5
4. Gujarat	195	34	17.4	3,117	1,406	45.1
5. Haryana	23	7	30.4	1,092	741	67.9
6. Karnataka	143	36	25.2	3,369	1,718	51.0
7. Kerala	77	28	36.4	1,760	956	54.3
8. Madhya Pradesh	63	14	22.2	1,871	1,104	59.0
9. Maharashtra	912	105	11.5	13,135	2,771	21.1
10. Orissa	15	2	13.3	867	511	58.9
11. Punjab	50	14	28.0	2,053	1,345	65.5
12. Rajasthan	38	6	15.8	1,323	806	60.9
13. Tamil Nadu	311	82	26.4	4,784	2,043	42.7
14. Uttar Pradesh	154	32	20.8	3,813	2,261	59.3
15. West Bengal	526	24	4.6	3,929	1,214	30.9

Appendix 1.2

Banking Statistics for Kerala State as on 31st December

(Rs. in Crores)

Year	State Bank Group			Other Nationalised Banks			Total Public Sector Banks			Private Banks			Grand Total							
	Total Deposit	Of which NRE Deposit	Total Ad-vance	Total Deposit	Of which NRE Deposit	Total Ad-vance	Total Deposit	Of which NRE Deposit	Total Ad-vance	Total Deposit	Of which NRE Deposit	Total Ad-vance	Total Deposit	Of which NRE Deposit	Total Ad-vance					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
1985	1202.65	354.41	774.71	64.42	1430.61	410.57	849.47	59.38	2633.26	764.98	1624.18	61.68	800.53	79.16	478.09	59.72	3433.79	844.14	2102.27	61.22
1986	1477.71	463.29	914.04	61.80	1708.48	516.40	988.91	57.80	3186.19	979.69	1902.95	59.72	946.01	176.71	543.43	57.44	4132.20	1156.40	2446.38	59.20
1987	1734.68	563.78	1091.89	62.90	1980.22	593.95	1157.30	58.40	3714.90	1157.73	2249.19	60.54	1037.65	201.09	648.97	62.54	4752.55	1358.82	2898.16	60.98
1988 (Up to September)	1882.50	616.66	1192.08	63.32	2090.97	649.12	1252.78	59.91	3973.47	1265.78	2444.86	61.53	1106.83	217.66	681.23	61.55	5080.30	1483.44	3126.09	61.53

Appendix 11.3

State-wise Financial Assistance Disbursed by All India Financial Institutions as at the end of March 1987 (cumulative)

(Rs. crores)

States	IDBI	% to Total	IFCI	% to Total	ICICI	% to total	NABARD (Up to 50-6-1988)	% to Total	NCDC	% to Total	LIC (as on 31-3-1987)	% to Total	Grand Total	% to Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. Andhra Pradesh	1249.24	7.98	245.73	9.36	257.18	6.19	1021.04	10.82	89.11	7.14	334.17	5.35	3196.47	8.18
2. Assam	161.24	1.08	25.27	0.96	15.00	0.39	111.17	1.18	33.78	2.71	94.66	1.52	441.12	1.13
3. Bihar	352.19	2.25	59.77	2.28	132.03	3.43	608.13	6.45	44.97	3.60	313.37	5.02	1510.46	3.87
4. Gujarat	1981.46	12.65	267.43	10.18	538.50	14.01	494.86	5.24	46.70	3.74	633.47	10.15	3962.42	10.14
5. Haryana	496.88	3.17	87.28	3.32	100.66	2.62	633.09	6.71	29.74	2.38	213.87	3.42	1561.32	4.00
6. Karnataka	1242.43	7.93	183.66	6.99	273.96	7.13	705.14	7.47	76.94	6.16	334.21	5.35	2816.34	7.21
7. Kerala	517.52	3.30	73.04	2.78	60.05	1.56	308.51	3.27	32.69	2.62	322.12	5.16	1313.93	3.36
8. Madhya Pradesh	759.10	4.85	119.76	4.56	179.62	4.67	683.09	7.24	133.62	10.70	286.97	4.59	2161.56	5.53
9. Maharashtra	2282.15	14.57	416.33	15.85	1006.36	26.18	864.12	9.16	150.89	12.09	941.72	15.08	5661.57	14.49
10. Orissa	485.80	3.10	79.30	3.02	85.16	2.22	323.26	3.43	57.56	4.61	212.68	3.41	1243.76	3.18
11. Punjab	502.59	3.21	119.42	4.55	89.47	2.33	921.88	9.77	56.49	4.52	214.08	3.43	1903.93	4.88
12. Rajasthan	707.21	4.52	148.59	5.66	157.89	4.11	465.60	4.93	80.44	6.44	349.38	5.59	1909.11	4.89
13. Tamil Nadu	1698.26	10.84	231.44	8.81	371.28	9.66	541.88	5.74	69.96	5.60	571.07	9.15	3483.89	8.92
14. Uttar Pradesh	1456.78	9.30	335.12	12.76	259.80	6.76	1352.57	14.34	226.08	18.11	609.85	9.77	4240.20	10.86
15. West Bengal	784.50	4.78	133.29	5.07	179.88	4.68	267.27	2.83	51.29	4.11	481.82	7.72	1898.05	4.86
Total	14677.35	93.71	2525.43	96.15	3706.84	96.42	9301.61	98.58	1180.26	94.53	5912.64	94.71	37304.13	95.50
All India Total	15662.32*	100.00	2626.58	100.00	3844.41	100.00	9435.19	100.00	1248.53	100.00	6245.85	100.00	39059.88	100.00

*Including assistance of Rs. 20 lakhs and Rs. 9 lakhs disbursed to Bhutan in 1980-81 and 1983-84 respectively.

Appendix 11.4

Growth of Bank Offices in India

Major States	Bank Offices 1969 and 1988 (including Private Scheduled Commercial Banks)						
	No. of Offices		Annual rate of increase Percentage between 1969 & 1988	Percentage to total No. of Offices		No. of Offices per lakh of population	
	June 1969	March 1988		June 1969	March 1988	June 1969	March 1988
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Punjab	346	2050	9.8	4.2	3.8	2.6	11.1
Kerala	601	2763	8.4	7.3	5.0	2.9	9.9
Karnataka	756	4010	9.2	9.2	7.3	2.7	9.7
Gujarat	752	3134	7.8	9.1	5.7	3.0	8.3
Haryana	172	1201	10.8	2.1	2.2	1.8	8.1
Tamilnadu	1060	4013	7.3	12.8	7.3	2.7	7.6
Maharashtra	1118	5057	8.3	13.5	9.2	2.3	7.3
Andhra Pradesh	567	4274	11.2	6.9	7.8	1.4	7.3
Rajasthan	364	2757	11.3	4.4	5.0	1.5	7.0
Madhya Pradesh	343	3866	13.6	4.2	7.1	0.9	6.6
Orissa	100	1794	16.4	1.2	3.3	0.5	6.2
Uttar Pradesh	747	7668	13.0	9.0	14.0	0.9	6.2
West Bengal	504	3683	10.9	6.1	6.5	1.2	5.9
Bihar	273	4287	15.6	3.3	7.8	0.5	5.5
Assam	74	1023	14.8	0.9	1.9	0.5	4.6
Total	7777	51480	10.5	94.1	93.8	..	..
All India	8262	54870	10.5	100	100	1.6	7.2

Source: Centre for Monitoring Indian Economy September, 1988.