



GOVERNMENT OF KERALA

ECONOMIC REVIEW
1989

STATE PLANNING BOARD
THIRUVANANTHAPURAM

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CHAPTER I

GENERAL REVIEW

National Scene

The performance of the economy, according to available information, shows signs of a slowing down in the growth of output, both agricultural and industrial. While agricultural production has not increased much beyond the peak achieved in 1988-89 growth rate in industrial production in fact, has decelerated. The balance of payments position continues to cause concern, despite a marked increase in exports.

In 1988-89, the economy recovered very quickly, from the ill-effects of the severe drought conditions for almost two years prior to that, when the Gross Domestic Product (GDP) recorded a growth rate of 10.4 per cent in real terms, aided by a 20.8 per cent growth in agricultural production and 8.8 per cent in industrial production. It is estimated that GDP growth rate in 1989-90 will be around 4 to 4.5 per cent in real terms (See table 1.1), which is below the average annual rate of growth of 5.9 per cent achieved during the first four years of the Seventh Five Year Plan.

Despite this lower growth rate in the current year, the average growth targets for the Seventh Five Year Plan are likely to be achieved.

Though the monsoon rains have been normal, it is expected that agricultural production may rise, but only by one percent, over the bumper crop achieved during 1988-89, when agricultural production recorded a growth rate of 20.8 per cent over 1987-88. Food-grains production is likely to cross the record production of 170 million tonnes achieved in 1988-89. Rice production in 1989-90 has been targeted at 72.5 million tonnes. The overall Khariff crop has been reported to be normal. The target for wheat at 54 million tonnes and that of pulses for 14.75 million tonnes are likely to be achieved.

The total quantum of agricultural credit increased from Rs. 6,794 crores in 1985-86 to Rs. 11,752 crores in 1988-89 and the target for 1989-90 is fixed at Rs. 13,294 crores.

TABLE 1.1

Selected Economic Indicators

(Percentage Change over Previous year)

Economic Indicators	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89(P)	1989-90(P)
Gross National Product (1)	7.5	5.6	-4.9	7.2	5.9	2.6	8.0	3.8	5.0	3.9	3.8	10.6	4-4.5*
Agricultural Production	14.3	3.8	-15.2	15.6	5.6	-3.8	13.7	-1.2	2.4	-3.7	-0.8	20.8	1.0*
Foodgrains Production	13.7	4.3	-16.8	18.1	2.9	2.8	17.6	-4.5	3.4	-4.7	-2.1	21.3	1.8*
Industrial Production (2)	4.2	7.6	-1.7	4.0	9.3	3.2	6.7	8.6	8.7	9.1	7.3	8.8	5.2(3)
Electricity generated	3.4	12.2	2.1	5.9	10.2	5.7	7.6	12.0	8.5	10.3	7.5	9.5	12.0(4)
Wholesale Price Index (5)	0.4	4.5	21.4	16.7	2.4	7.2	7.2	6.0	4.8	5.1	10.7	5.7	7.0(6)
Monetary Resources (M3)	18.4	21.9	17.7	18.1	12.5	16.1	18.1	18.9	15.9	18.6	15.9	17.7	14.9(7)
Imports at current prices	18.6	13.1	34.2	37.3	8.4	5.0	10.8	8.2	14.7	2.2	11.5	25.9	20.7(8)
Exports at current prices	5.2	5.9	12.1	4.6	16.3	12.8	11.0	20.2	-7.2	14.3	26.4	28.9	38.3(8)
Foreign exchange Reserves (Rs. Crores)	4862	5821	5934	5544	4024	4782	5972	7243	7820	8151	7687	7040	5331(9)

(P) Provisional

*Anticipated

- Growth rates are based on new series at 1980-81 prices
- Growth rates are based on old index of industrial Production (Base 1970-71-100) upto 1980-81 and on the basis of new index (Base 1980-81-100) thereafter.
- April—November 1989
- April—December 1989.
- Rate of inflation is based on old index of wholesale prices (Base 1970-71-100) upto 1981-82 and on the basis of new Index (Base 1981-82-100) thereafter on point to point basis.
- Upto February 17, 1990.
- Between March, 31, 1989 and January 26, 1990.
- April—December 1989 over the same period of 1988. Rates of growth are in relation to rupee values.
- As on January 31, 1990, Foreign Exchange include gold, SDR and foreign currency assets and relate to end-period.

After a slight deceleration during 1987-88, industrial production recovered quickly during 1988-89, when the rate of growth was 8.8 per cent. There has again been a slow down in 1989-90. The data available up to November 1989 indicate a growth rate of only 5.2 percent, compared with the 9.4 percent achieved during the corresponding period of last year. This is essentially attributable to the poor performance of the manufacturing sub-sector which accounts for more than three fourths of the total weight in the index and recorded a growth rate of only 3.6 per cent during April-November 1989, compared with 10.2 per cent achieved during the corresponding period of the previous year. The deceleration has been marked in a few key industries like sugar, steel, cement, fertilisers, cotton cloth (mill sector), commercial vehicles and consumer electronics.

The slow down in industrial growth in 1989-90 is due to a variety of reasons. In some industries like Steel, Sugar and Phosphatic fertilisers, the explanation lies in specific supply side factor. In some industries, rapid expansion in recent years has proceeded beyond the growth in demand leading to unutilised capacity, while in some others the rate of growth of demand may have decelerated. Mining and quarrying and electricity have performed significantly better during 1989-90 (April to November) with growth rates of 8.4 per cent and 12.1 per cent respectively.

The performance of key infrastructure industries presents a mixed picture. While electricity generation, crude petroleum and petroleum products, coal and lignite production, coastal shipping and telecommunication sectors recorded substantial growth; railway revenue earning traffic indicates only a modest improvement and there has been deceleration in the production of salcable steel, cement and phosphatic fertilisers. Within the power sector, there has been better performance by both hydel and thermal generation and average PLF has also improved during the year. During April-December 1989 crude petroleum production increased by 6.9 per cent and petroleum products by 9.1 per cent.

The price situation has remained under pressure despite a satisfactory monsoon and a bumper crop for the second year in succession. The Wholesale Price Index (WPI) registered an increase of 7 per cent upto 17th February, 1990 compared with 5 per cent during the corresponding period of last year. The annual rate of inflation in terms of WPI works out to 7.7 per cent up to 17th February 1990 compared to 5.3 per cent in the corresponding period of last year. The Consumer Price Index (CPI) for industrial workers, according to data available up to January 1990, has increased by 5.5 per cent, which is significantly lower than 7.8 per cent recorded during last year. The

increase in prices during the current year has been largely contributed by agro-based items like pulses, tea, oilseeds, sugar, gur, Khandasari and groundnut oil. Among manufactured items, textiles, beverages, paper and paper products, leather and leather products, tobacco products and basic metals have shown considerable increase.

The growth in employment in the organised sector has been sluggish in recent years. There was a marginal increase of 1.4 percent in employment in the organised sector, which increased from 25.39 million in 1986-87 to 25.75 million in 1987-88. Quick estimates for 1988-89 indicate that a little over 26 million were employed in the organised sector, showing an increase of 1.1 percent over the previous year. Both the public sector and private sector contributed to this increase by 1.3 percent and 0.7 percent respectively.

The country's balance of payments situation, as has been the case in the first four years of the Seventh Plan, has remained under considerable pressure despite a buoyant trend in exports and a slow down in the growth of imports. Provisional figures available indicate that during April-December 1989 export recorded an increase of 38.3 per cent over the corresponding period of last year. Imports during the same period have registered a slower growth at 20.7 percent. Consequently the trade deficit, at Rs. 5,518 crores during April-December 1989 declined by 16.4 per cent over the same period last year. Net invisibles, on the other hand, are unlikely to show any improvement because of uncertain trends in the net private transfers, relatively slow growth of tourist traffic and a steady increase in interest payment of past borrowings. Trade deficit as a percentage of GDP has marginally declined from 3.4 per cent during the Sixth Plan period to 3.2 per cent during the first three years of the Seventh Plan. The severe strain on the nation's balance of payments is reflected in the steep depletion of our foreign exchange reserves to Rs. 5,331 crores as on 31-1-1990 from Rs. 7,040 crores at the beginning of the financial year. Also, the country's external debt has mounted fast with the result, the debt-servicing ratio has increased from 21% to 23% excluding non-resident deposits.

Thus despite a favourable monsoon for the second year in succession, there has been both a slowing down in the rate of growth of the economy and higher rate of inflation. Employment in the organised sector has remained virtually stagnant and the country's balance of payments has come under increasing pressure.

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	1988-89
1. State Income (At current prices) Rs. crores	1255	3655	6223	7099	7873	8870
" (1980-81 prices) Rs. Crores	1255*	3655	3969	3899	4047	4203
2. Per capita Income (at current prices) Rs.	594	1444	2251	2519	2754	3054
3. Output of Important Commodities						
(a) Rice — Lakh tonnes	12.98	12.72	11.73	11.34	10.33	10.02
(b) Coconut — Million nuts	3981	3008	3149	3173	3346	3841
(c) Arecanut — "	12738	10805	10664	53207	10665	10891
(d) Pepper — 000 Tonnes	25.03	28.52	29.17	31.38	46.82	42.51
(e) Rubber — "	78.73	140.33	184.70	202.13	216.56	238.40
(f) Tea — "	41.45	50.72	53.10	50.34	56.28	65.77
(g) Coffee — "	12.57	23.54	23.64	23.55	22.93	47.43
4. Prices						
(a) Whole sale Price Index of Agricultural Commodities @ (Base 1952-53 = 100)	222	513	800	933	964	901
(b) Consumer Price Index Number Base 1970 = 100	864 ^t	229	340	368	398	419
5. Plan Outlay (Rs. Crores) (Accounts)	59.35	311.31	411.95	455.46	407.77	425 (R.E.)

*At 1970-71 Prices

@Index Numbers relate to the calendar years, 1974, 1981, 1986, 1987, 1988 & 1989.

^tBase 1939 — 100

State Income

The State Income of Kerala in 1988-89, the latest year for which information is available is estimated at Rs. 8870 (new series) crores, against Rs. 7873 (new series) crores in 1987-88, at current prices. This represents a growth rate of 12.7 per cent. However in 1980-81 prices, the State income grew only by 3.9 percent in 1988-89 from Rs. 4048 crores in 1987-88 to Rs. 4203 crores. The percapita state income is estimated at Rs. 3054 for 1988-89 as compared to Rs. 2754 in 1987-88, at current prices, representing an increase of 10.9 percent. In 1980-81 prices, the increase in percapita income was from Rs. 1416 in 1987-88 to Rs. 1447 in 1988-89, ie; of 2.2 per cent.

The share of the secondary sector, in State income, has increased in real terms though marginally to 21.29 per cent in 1988-89, from 20.57 per cent in 1986-87 and 20.17 per cent in 1987-88. With the improved prospects of power supply, following favourable monsoons and a conducive climate for industrial investment, the growth of the secondary sector is likely to sustain its momentum. Still, the tertiary sector continues to dominate the structural profile of State Income. Well laid out policies to guide investment towards the commodity producing sectors would be necessary in as short a time as possible to revive the economy on a sustainable basis.

Employment Situation

Chronic unemployment and underemployment especially of the educated youth continue to be one of the major problems being faced by the State Government. At the end of July 1989, there were 30.67 lakh job seekers on the live registers of the Employment Exchanges of whom the number at the beginning of the year was 29.01 lakhs. Out of this, those who have qualifications of S.S.L.C. and above were 18.61 lakhs at the end of July 1989 compared to 17.16 lakhs at the beginning of the year. The number of placements through the Employment Exchanges has however been declining over the years.

The total number of professional and technical job seekers has increased from 38,205 in 1980 to 87,482 in 1988 and further to 91,356 as on 31-7-1989.

Of the total employment of 11.04 lakhs in the Organised Sector as on 31-12-1988, the Public Sector accounted for 6.02 lakhs and the Private Sector 5.02 lakhs

Through the unemployment assistance scheme, Rs. 81.33 crores has been disbursed to 2.15 lakh beneficiaries upto 1989. The disbursement on this account in 1988-89 amounted to Rs. 23.54 crores.

Price Situation

The all India Wholesale Price Index for all the commodities rose by 6.5 percent on a point to point basis upto January 1990. The wholesale price index for Agricultural commodities in Kerala decreased by 59 points, from 962.9 in 1988 to 904.0 in 1989. However, the Consumer Price Index increased from 395 in 1988 to 412 in 1989. This increase of 4.3 percent in consumer prices is lower than that in the previous year when the increase was 7.34 per cent.

Agriculture

The relatively favourable weather conditions in 1989 have helped sustain the revival manifested in 1988 in the production of most of the agricultural products. Also a number of new innovative programmes have been taken up which should foster growth. The Group Farming Programme for rice introduced during 1989-90 has been very effective in revitalising the rice production scenario of the state with new vigour and enthusiasm. The Krishi Bhavan set up in all the Panchayats in the State play an effective role in propagating the group farming activity. The total agricultural credit disbursed through co-operatives during 1988-89 amounted to Rs. 363.17 crores.

Production performance of the crops overall was encouraging, with a number of crops like pulses, cashewnut, coconut, Tea, Coffee, Rubber, Turmeric, Sugarcane, Cardamom and betelnut recording higher production compared to the previous year. However, two other major crops of the State rice and tapioca, suffered decline in production compared to the previous year.

Production of rice fell from 10.33 lakh tonnes in the previous year to 10.02 lakh tonnes in 1989, primarily due to the decline in area from 6.04 lakh ha. to 5.78 lakh ha. Even this level of production has been achieved through higher productivity, which reached an all time high of 1735 kg. per ha. A redeeming feature during the year was the increase in the area under high yielding variety from 1.20 lakh ha. in 1988 to 1.37 lakh ha. in 1989. With a view to stall the slide in Rice production, a programme for group farming has been introduced, which is gaining wide acceptance. This would be extended fast on a State-wide basis.

Production of tapioca declined from 32.36 lakh tonnes in 1987-88 to 28.02 lakh tonnes in 1988-89. There has been fall in both area under tapioca and productivity.

Thanks to favourable monsoons during the last two years, there has been significant increase in coconut production. This led to a slump in the market causing severe loss to the farmers. Consequently the State Government have initiated steps to procure coconut through the State Marketing Federation and KERAFED under support price operations. The support price offered for the last season was Rs. 1500 per quintal of copra which has now been increased to Rs. 1600 per quintal for the coming season.

Livestock

Kerala has the record of having the highest percentage of cross bred, over 60 per cent, out of the total

breedable cattle. However, the total number of artificial inseminations marginally decreased to 13.49 lakhs in 1988-89 from 13.93 lakhs in the previous year. The shortfall was due to certain inadequacies in the insemination centres. Still by improvement in overall genetic quality of the indigenous stock, better upkeep and maintenance, the milk production target was fully achieved. Milk production increased by 5.7 per cent from 14.26 lakh tonnes in 1987-88 to 15.07 lakh tonnes, in 1988-89. The formation of Amul Pattern Co-operative Societies in the State has progressed satisfactorily; 10.67 societies had so far been registered upto 1988-89. These societies have made a major impact on the Dairy Sector in the State in regard to production, procurement and marketing of milk. Encouraged by the success in the field, steps have been taken to establish a Rs. 3.60 crores milk power Plant, sponsored by NDDB.

Fisheries

The fishermen population in the State is estimated at 9.29 lakhs, of whom 7.20 lakhs (77.5%) are engaged in the marine sector.

The total fish production has shown remarkable recovery in 1988-89, compared to 1987-88 when the production had declined, from 3.05 lakh tonnes to 3.87 lakh tonnes. The contribution of marine sector was 3.59 lakh tonnes. Export of marine fish products from Kerala during 1988-89 was 45,614 tonnes, compared to 35,576 tonnes in the previous year. In value terms the export in 1988-89 amounted to Rs. 221.31 crores, which work out to about 37 per cent of the total export from the country. The major thrust areas for fisheries development include the Integrated Fisheries Development Project phase I and II with assistance from NCDC, implemented by Matsyafed and the housing programme for the fishermen. Upto the end of 1988-89 24,600 houses for fishermen were completed.

A major project for the development of prawn farming in brackish water areas has been taken up during 1989 with external assistance. The project aims at establishing prawn farms, hatcheries, feed mills with supporting facilities like processing, marketing etc. and is scheduled to be completed in 10 years.

Irrigation and Power

The total investment in Irrigation—major, medium and minor irrigation schemes, till the end of 1988-89 amounts to Rs. 766 crores. The total area brought under irrigation is 3.72 lakh ha. (net) or 6.11 lakh ha. (gross). The share of major and medium irrigation scheme is 1.8 lakh ha. (net) or 3.8 ha. (gross), achieved through ten completed schemes and partial commissioning of seven ongoing schemes. Of the total investment of Rs. 766 crores, the amount invested on major and medium irrigation is Rs. 677 crores.

Of the total area irrigated, the share of minor irrigation schemes is 1.91 lakh ha. (net) or 2.30 lakh ha. (gross) with a total investment of Rs. 91 crores. During 1988-89, 41 Minor Irrigation (MI) Class I schemes, 52 MI Class II schemes, 49 Lift Irrigation

Schemes, 32 IPD Yela Schemes, 63 community irrigation schemes, 15 Special Component Plan schemes and 7 Tribal Sub Plan schemes were completed. Apart from this, 30 damaged M.I. Structures were also renovated.

Thanks to favourable monsoons in 1988-89 after two years of acute drought conditions, power generation during 1988-89 increased by 11 per cent, to 4550 MU from 4093 MU in the previous year. Still this was far below the peak achieved in 1985-86. The quantum of power imported increased from 1036 MU in 1987-88 to 1265 MU in 1988-89. Thus there was an increase of 13.4 per cent in the power available. Still this was not adequate to meet the internal demand for power. Because of this, the power cut imposed during the previous year on industrial consumers could not be lifted.

The installed capacity as at the end of 1988-89 was 1476.5 MW. No new project was completed during the year under review. The per capita consumption of power in the State has increased to 148.11 KWh. in 1989 from 125.75 KWh in the previous year. The number of consumers has gone up to 29.34 lakhs from 27.7 lakhs during the same period. During 1988-89, 15,482 irrigation pumpsets were energised. As at the end of 1988-89, 1.87 lakhs irrigation pumpsets were energised.

Industry

The performance in 1988-89 was better than that in 1987-88. According to provisional estimates of net state domestic product, at constant prices, the manufacturing sector registered an increase of 8.2 per cent in 1988-89.

Improvement in the industrial climate witnessed during 1987 continued in 1988 with still better results, in terms of the number of industrial disputes, mandays lost, and the number of industrial workers affected, all having declined compared to the previous year.

The total number of registered factories stood at 12,483 in 1988 compared to 11,982 in the previous year. The number of workers employed in the factory sector increased from 2,99,761 in 1987 to 3,10,412 in 1988. The cashew industry alone provided employment to 1,11,372 workers, which constitute nearly 36 per cent of the total employed in the factory sector. The other major employing industries were general engineering, cotton textiles, chemical industry, rubber, tiles and automobile repairing.

The number of joint stock companies functioning in Kerala increased to 3634 by 1988 end from 3336 during 1987. The number of companies newly registered during 1988-89 was 326. Of this, 297 were private limited companies and 29 public limited companies. The total number of Government companies has increased to 98, with the establishment of Kerala State Horticultural Products Development Corporation Ltd. in 1989.

While a large number of the State Public Sector undertakings/companies have accumulated very large losses, adding up to Rs. 248 crores as on 31-3-1989, with

several of them having large negative net worth, there are some signs of improvement. The various major Government owned companies which have shown profits are Kerala Electrical and Allied Engineering Company, Malabar Cements, Kerala Agro Machinery Corporation and Kerala Clays and Ceramic Products. However, the Kerala State Textile Corporation, with eight units under its control is expected to result in a loss during the year. The working of KELTRON is also expected to result in loss. The Kerala Minerals and Metals Ltd., has improved its performance considerably by having reduced its loss to Rs. 96.35 lakhs in 1988-89 from Rs. 1647 lakhs in the previous year. Government majority companies such as Travancore Titanium Products Ltd., Travancore Cochin Chemicals Ltd., Metal Industries Ltd., Travancore Sugars and Chemical Ltd., and Forest Industries (Travancore) Ltd., and five of the companies promoted by KELTRON have shown positive working results during 1988-89. Among the 38 state public sector industrial undertakings, fifteen companies earned profit, where as 23 companies incurred losses, which far outweighed the profit earned by the other 15 companies.

The total number of small scale units in the State, as at the end of 1988-89, was 55,427, out of which 8236 were started in 1988-89. The new units started in 1988-89 are estimated to have provided employment to 41,180 persons. The comparable figures for the previous year was 38,245. It is estimated that the small scale sector provides employment to 3.66 lakh persons in the State.

Out of the total number of small scale units in the State 86.6% are identified to be working properly.

The major promotional agencies attending to small scale industries are Kerala Financial Corporation (KFC) and Small Industries Development Corporation (SIDCO). SIDCO is engaged in the procurement and distribution of scarce raw materials, development and administration of industrial estates, management of production units and service centres, marketing of small scale industrial products etc. KFC provides long term loans to small and medium industries. It sanctioned loan amounting to Rs. 66.73 crores and disbursed Rs. 41.47 crores in 1988-89. This represented increases of 64 per cent and 25 percent respectively over the previous years. The aggregate amount of loan disbursed by KFC as on 31-3-1989 amounted to Rs. 211.67 crores.

The traditional industries such as cashew, handloom and coir continue to face various problems. Though production of handloom cloth has increased, the unsold stocks are major problem being faced by the industry, besides lack of adequate raw material and competition from mill sector. Non-availability of adequate quantity of husk at a reasonable price, inadequacy of working capital with the coir co-operative societies, decline in export market and accumulation of unsold stock continue to be the major problems facing the coir industry.

The major problem facing cashew industry is the non-availability of raw cashewnut resulting in very low capacity utilisation. The monopoly procurement of raw cashew continued during 1989. Cashew continued

to lose on export front as in previous year, when the quantity exported declined by 8 per cent to 34,023 tonnes in 1989. The fall in value of the nuts exported was even greater, being at the rate of 14 per cent, from Rs. 323 crores to Rs. 276 crores in 1989. Even larger percentage decline was recorded in the export of cashew shell liquid, the decline in value being 49 per cent. During 1989, import of raw cashew-nut was 37,078 tonnes compared to 42,256 tonnes in the previous year.

Sericulture has been indentified as an activity with high employment potential in rural areas. A total area of 1100 ha. would be brought under mulberry cultivation by the end of 1989-90. A target of 11200 ha. covering all the districts in the state have fixed, for mulberry cultivation, for the Eighth Five Year Plan.

Central sector investment in Kerala in terms of gross block, amounted to Rs. 1307 crores at the end of March, 1988. Kerala's share of Central investment has been steadily declining over the last 13 years. The share came down from 3.24 per cent in 1975 to 1.59 per cent in 1988. The States share has remained unchanged at around 1.6 per cent during the last three years.

Transport

Kerala has a fairly well developed transport infrastructure. The total road length in the State increased by 2286 km. from 1,18,195 km. in 1987-88 to 1,20,481 km. in 1988-89. About 75 per cent of the road length comes under Panchayats.

As regards coverage, Kerala has a road length of 310 km. per hundred sq. km. of area and 472 km. per lakh of population (1981 Census). The total number of motor vehicles registered in the State stood at 5.23 lakhs in 1988-89 as against 4.74 lakhs in 1987-88. Kerala had 2056 vehicles per lakh of population (1981 Census) and 1347 vehicles per hundred sq. km. of area.

The Kerala State Road Transport Corporation (KSRTC), the only public sector agency for passenger transport by road in the State, accounts for only 23 per cent of the total stage carriage. In recent years, efforts to replace the overaged buses have been intensified. Along with various other positive steps initiated by the Corporation by way of increased revenue collection, fare revision, and operational reforms, the working of the Corporation is expected to improve.

Tourism

The Tourism Department and the Kerala Tourism Development Corporation (KTDC) are the two official agencies engaged in the promotion of tourism in the State. The KTDC, in addition to the restaurants at Ponnudi and Veli, runs a chain of 11 hotels and 5 motels within the State. About 52,000 foreign tourists and 12,40,000 domestic tourists are estimated to have visited the State during the year under review.

Tourism promotion Councils have been organised in almost all the districts. An Institute of Tourism and Travel Studies has been set up in the State with a view to giving a professional orientation to the various aspects of tourism in the State.

Education

During 1988-89, there were 12141 schools in the State, comprising 6819 L. P. Schools, 2890 U. P. Schools and 2432 High Schools. Of the total number of schools, 4480 were in Government sector, 7341 private aided schools and 320 were private unaided schools. The total student strength during 1988-89 increased to 58.52 lakhs from 57.88 lakhs in 1987-88. It is noteworthy that at the lower primary level the enrolment has come down to 25.96 lakhs from 26.37 lakhs in the previous year.

Out of the total student strength of 58.52 lakhs, the number of girl students stood at 28.64 lakhs, which comes to 49 per cent of the total.

The overall coverage was 93.5 in the 5-9 age group, and 85.2 in 10-14 age group.

The total number of trained and untrained teachers stood at 1.91 lakhs in 1989, of whom, trained teachers were 1.84 lakhs. The teacher pupil ratio during 1988-89 was 1:30 compared to 1:31 during 1987-88. The vocational higher secondary education at +2 level is implemented in 80 Government High Schools and 20 Technical High Schools. During 1988-89 the total enrolment in vocational education stood at 3619.

As regards higher education, the number of Arts & Science Colleges remained unchanged at 172, consisting of 40 Government Colleges and 132 Private Colleges. The student strength at the University level was 3.29 lakhs during 1988-89, as against 3.25 lakhs in the previous year. The number of teachers in the Arts & Science Colleges in 1988-89 was 13,465.

The technical education institutions in the State during 1988-89 consisted of 8 engineering colleges, 28 Polytechnics, 47 Technical High Schools and 19 pre-vocational Training Centres. During 1988-89, three new polytechnics were started. The total strength in the Engineering Colleges was 10,434, of whom the girl students were only 2,000. The annual intake in Engineering Colleges was 2,656. Of the 28 polytechnics, 22 were in the Government sector and the rest under private sector. The total student strength in polytechnics increased significantly to 14,225 in 1988-89 from 10,427 in the previous year. The new intake in polytechnics was 4,231 in 1988-89 as against 3,544 in 1987-88.

The total expenditure on Education in 1988-89, as per revised estimates, was Rs. 549.31 crores. Of this, 51.6 per cent was increased on primary education, 29.1 per cent on secondary education and 13.4 per cent in higher education. The per capita Government expenditure on education during 1988-89 increased to Rs. 192.02 from Rs. 181.94 in the previous year.

Health

The health standards achieved by Kerala are comparable to some of the developed countries, as reflected in the achievements in respect of birth rate, death rate and infant mortality rate. The birth rate per thousand

population was 21.0, death rate per thousand population 6.0 and the infant mortality rate 26 in 1987, all these have shown improvement compared to the previous year.

The State's health infrastructure comprise 143 hospitals, 740 primary health centres, 72 dispensaries, 20 T. B. Centres, 11 leprosy control units, 29 community health centres, 77 subsidiary health centres and 34 grant-in-aid institutions, all in the Government sector. In addition, there are private hospitals, clinics etc. According to provisional data the number of hospital beds per lakh of population in 1988-89 was 126.

There were 101 Ayurveda hospitals and 496 dispensaries at the end of the year 1988-89.

The number of homoeopathic hospitals remained at 24 as in the previous year. The number of dispensaries however have increased to 262 in 1988-89 from 255 in the previous year.

The Government expenditure on Medical and Public Health amounted to Rs. 131.9 crores during 1988-89. Out of this allopathy accounted for 89.6 per cent. The per capita expenditure on Medical and Public Health increased to Rs. 64.2 in 1988-89 compared to Rs. 52.6 in the previous year.

The Family Welfare Programme in the State is rendered through a network of 83 urban main centres and 5,094 rural sub centres including 77 post partum centres in different districts. The achievement by the State in this regard is way ahead of those in the other states. The net reproduction rate for Kerala is 1.3 as against the all India figure of 1.67. The couple protection rate as on 31-3-1988 was 46.3 as against 39.8 for all India.

Housing

Several Government agencies in the State are engaged in implementing housing programmes. The major agencies are, Kerala State Housing Board, Kerala State Housing Co-operative Federation and Kerala State Corporation for Scheduled Castes and Scheduled Tribes. The main thrust of the Government's housing programmes is directed towards the benefit of the economically weaker sections.

Under the rehabilitation housing programmes started in 1985, 29,981 houses were constructed in 1988-89. Upto 1988 end, the Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes has extended financial assistance for the construction of 29,088 houses. During 1988-89, construction of further 2,500 houses was taken up. The Kerala State Co-operative Housing Federation Ltd., has disbursed an amount of Rs. 108.44 crores, as on 31-3-1989, for the construction of 43,699 houses.

During 1988-89 it disbursed Rs 14.56 crores for the construction of 6,716 houses. Of the total houses thus assisted, 33,436 houses were completed till 31-3-1989.

The major programmes of the State Housing Board are the public housing scheme and cash loan scheme. Under the former land is acquired and developed and then allotted either as plots or after house construction depending on the category of the programme included. Under the latter an amount of Rs. 141 lakhs was disbursed to 592 persons during 1988-89.

The Board of Revenue, the major Government Department distributed 2,903 house sites during 1988-89 under the scheme house sites for landless labourers. Of these, 1,291 beneficiaries belonged to Scheduled Castes and Scheduled Tribes. In addition, 852 rural workers, including 222 from SC/ST, were also given financial assistance.

Water Supply and Sanitation

According to revised estimates, over 70 per cent of the urban population and 33 percent of the rural population could be provided with protected drinking water. The number of towns having protected water supply was 35 as on 31-3-1989. Out of the total number of 1,364 ongoing rural water supply schemes, 50 schemes were completed during 1988-89.

Institutional Finance :

Kerala's share in the loans disbursed by the All India financial institutions as on 31-3-1989 was only 2.67 per cent. This is significantly lower than several other States, the share for Maharashtra was 16.22 percent, Tamil Nadu 8.93 per cent, Karnataka 6.98 per cent and Andhra Pradesh 8.65 per cent. The total amount disbursed by these institutions was Rs. 51,852 crores, out of which Kerala received only Rs. 1,387 crores.

Deposits of the public sector banks in India increased from Rs. 3,897 crores in 1969 to Rs. 147,134 crores as at the end of June 1989. For Kerala the credit deposit ratio has been declining steadily over the years. The CD ratio declined from 65.8 per cent in 1969 to 62.10 percent in June 1988. By September 1989, the ratio had slightly increased to 63.5 per cent.

Plan Outlay

The plan outlay budgetted for 1989-90 is Rs. 526 crores. It is anticipated that this outlay will be utilised in full.

For the Annual plan 1990-91, an outlay of Rs. 637 crores has been approved. This represents an increase of Rs. 109 crores in absolute terms and 20.72 in per centage terms over the outlay for 1989-90.

CHAPTER 2

INCOME AND EMPLOYMENT

National Income and Employment

2.1 The excellent Monsoon of 1988 following the drought in 1987 considerably helped the Indian economy in achieving a remarkably good performance during 1988-89. There has been an unprecedented growth of 10.4 per cent in real GDP as against 4.1 per cent in 1987-88. The value added in agriculture has increased by 18.6 per cent, regis-

tered manufacturing by 8.8 per cent and services by 6.9 per cent.

2.2 The national income at current prices is estimated at Rs. 306822 crores in 1988-89 as against Rs. 257913 crores in 1987-88 representing a growth rate of 19 per cent. In 1980-81 prices the national income has grown from Rs. 149967 crores in 1987-88 to Rs. 166593 crores in 1988-89.

TABLE 2.1

National Income and State Income

Item		1980-81	1987-88*	1988-89†
(1)	(2)	(3)	(4)	(5)
1.	National Income (Rs. Crores) (at current prices)	110484	257913 (12.8)	306822 (19.0)
	At constant prices	110484	149967 (3.5)	166593 (11.1)
2.	State Income (Rs. Crores) (at current prices)	3702	7873 (10.9)	8870 (12.7)
	At constant prices	3702	4043 (3.8)	4203 (3.9)
3.	Per-capita National Income (at current prices Rs.)	1627	3286 (10.6)	3835 (16.7)
	At constant prices	1627	1910 (1.6)	2082 (9.0)
4.	Per capita State Income (Rs.) (at current prices)	1463	2754 (9.3)	3054 (10.9)
	At constant prices	1463	1416 (2.3)	1447 (2.2)

Note:-- 1. New Series with 1980-81 as base
 2. Figures in bracket show the percentage change over the previous year.
 * Provisional
 † Quick Estimate
 Source (i) Department of Economic and Statistics.
 (ii) C. S. O.

TABLE 2.2

Sectoral Contribution of Net Domestic Product: India and Kerala

Sector	India						Kerala					
	At current prices		At constant prices		At constant prices		At constant prices		At current prices		At current prices	
	1980-81	1987-88	1988-89	1987-88	1988-89	1980-81	1986-87	1987-88	1988-89	1986-87	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Primary	41.2	34.90	36.4	34.0	36.1	40.51	36.82	37.19	35.81	36.75	36.93	37.16
2. Secondary	23.0	25.0	24.4	26.3	25.5	22.79	20.57	20.16	21.29	21.51	21.18	20.67
3. Transport, Communication and Trade	16.4	19.50	19.4	17.7	17.3	18.97	20.87	20.80	20.56	19.96	20.07	20.23
4. Finance and Real Estate	8.4	7.7	7.4	9.7	9.4	5.68	7.33	7.49	7.74	6.44	6.48	6.49
5. Community and Personal Services	11.0	12.9	12.4	12.3	11.7	12.05	14.41	14.36	14.60	15.34	15.34	15.45
6. Tertiary (3+4+5)	35.8	40.1	39.2	39.7	38.4	36.70	42.61	42.65	42.90	41.74	41.89	42.17
Total	100	100	100	100	100	100	100	100	100	100	100	100

State Income

2.3 The State Income of Kerala (State domestic product) in 1988-89 is estimated at Rs. 8869.77 crores at current prices (new series) as against Rs. 7873.23 crores in 1987-88 showing a growth rate of 12.7 per cent. At constant prices the State income went up from Rs. 4047.79 crores in 1987-88 to Rs. 4203.08 crores in 1988-89 showing an increase of only 3.9 per cent over the previous year.

Per capita Income

2.4 The per capita national income for 1988-89 is estimated at Rs. 2082 as against Rs. 1910 in 1987-88 indicating a growth rate of 9 per cent. At current prices the per capita income in 1988-89 is estimated at Rs. 3235 showing an increase of 16.7 per cent over 1987-88 figure of Rs. 3286.

TABLE 2.3

Growth of District Income (at Constant Prices) 1980-81 and 1987-88

(Rs. lakhs)

Sl. No.	District	1980-81				1987-88				Population ('000)
		P	S	T	Total	P	S	T	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Trivandrum	12166 (8.1)	8795 (10.4)	16140 (11.8)	37101 (10.0)	11533 (7.6)	8420 (10.3)	21720 (12.6)	41673 (10.2)	2916 (10.2)
2.	Quilon	19708 (13.2)	9419 (11.2)	13094 (9.5)	42221 (11.4)	13683 (9.1)	6349 (7.8)	13374 (7.7)	33406 (8.3)	2464 (8.6)
3.	Pathanamthitta	..	..	..	..	7904 (5.3)	3399 (4.2)	7180 (4.2)	18483 (4.6)	1244 (4.4)
4.	Alleppey	10149 (6.8)	6964 (8.3)	12662 (9.3)	29775 (8.0)	9742 (6.5)	6131 (7.5)	12247 (7.1)	28120 (6.9)	2095 (7.3)
5.	Kottayam	10777 (7.2)	3438 (4.1)	9991 (7.4)	24206 (6.5)	12594 (8.4)	3281 (4.0)	12407 (7.2)	28282 (6.9)	1907 (6.7)
6.	Idukki	10506 (7.0)	4909 (5.8)	3177 (2.3)	18592 (5.0)	11216 (7.5)	4605 (5.6)	3954 (2.3)	19775 (4.9)	1089 (3.8)
7.	Ernakulam	12830 (8.6)	16664 (19.8)	19720 (14.5)	49214 (13.3)	14685 (9.8)	16133 (19.8)	23903 (13.8)	54721 (13.5)	2847 (10.0)
8.	Trichur	12263 (8.2)	8109 (9.6)	13800 (10.2)	34172 (9.2)	12832 (8.5)	7811 (9.6)	17314 (10.0)	37957 (9.4)	2739 (9.6)
9.	Palghat	10758 (7.2)	5608 (6.6)	9311 (6.9)	25677 (6.5)	11186 (7.4)	5481 (6.7)	12167 (7.0)	28834 (7.1)	2296 (8.0)
10.	Malappuram	11986 (7.9)	2759 (3.3)	9287 (6.8)	24032 (4.2)	10611 (7.0)	2643 (3.2)	11571 (6.7)	24825 (6.1)	2699 (9.4)
11.	Kozhikode	16048 (10.7)	9871 (11.7)	14130 (10.4)	40049 (10.8)	10925 (7.3)	8470 (10.4)	15847 (9.2)	35242 (8.7)	2622 (8.5)
12.	Wyanad	..	..	..	..	6648 (4.5)	1569 (1.9)	2496 (1.5)	10713 (2.6)	623 (2.2)
13.	Cannanore	22779 (15.2)	7827 (9.3)	14578 (10.7)	45184 (12.2)	11502 (7.5)	5041 (6.2)	12849 (2.4)	29392 (7.3)	2167 (7.6)
14.	Kasaragode	..	..	..	..	5475 (3.6)	2261 (2.8)	5620 (3.3)	13356 (3.3)	981 (3.4)
15.	State Domestic Product	149970	84363	135890	370223	150536	81594	172649	404779	28580

Note: P—Primary, S—Secondary, T—Tertiary

Figures in brackets indicate percentage to state total

Source: Department of Economic and Statistics.

2.5 The per capita state income is estimated at Rs. 3054 for 1988-89 as against Rs. 2754 in 1987-88 representing an increase of 10.9 per cent at current prices. The per capita income at constant prices has however grown only by 2.2 per cent from Rs. 1416 in 1987-88 to Rs. 1447 in 1988-89. The details of national income, state income and related aggregates in new series are given in Table 2.1.

State Income—Trends in Sectoral Share

2.6 The trend in sectoral contribution of national income and state income (new series) at current and constant prices are given in Table 2.2.

2.7 During 1988-89, there has been a marginal but favourable structural shift in sectoral composition of state income in real terms towards the secondary sector of the economy deviating from the trend observed especially for the past two years. The contribution to the state income by both registered and unregistered manufacturing, power and construction went up by about 11 per cent during the year under review bringing the secondary sector back to the growth path attained in the early Eighties. With the improved prospects of power supply, availability of industrial raw materials and a conducive climate for industrial investment, the growth of secondary sector, especially manufacturing is likely to sustain its momentum.

2.8 The buoyancy of the cash crop sector, notably coconut, rubber, cashew, coffee and tea in terms of production and productivity could contribute only a marginal increase in the income from agriculture due to the stagnating if not declining food crop sector especially rice and tapioca. But, even such moderate growth of the agricultural sector is not reflected in the income from the primary sector due to the steady decline in the income from forestry, logging and fishing as a result of which the primary sector continues to stagnate. In fact, at constant prices the share of the primary sector has fallen from 40.5 per cent in 1980-81 to 35.8 per cent in 1988-89.

2.9 The share of the tertiary sector however, has been growing steadily from 36.7 per cent of the SDP in 1980-81 to 42.9 per cent in 1988-89. In absolute terms the contribution of tertiary sector increased from Rs. 1358.9 crores in 1980-81 to Rs. 1726.49 crores in 1987-88 and further to Rs. 1802.96 crores in 1988-89 despite a marginal fall in the sub sectoral contribution of real estate and ownership of dwellings. The existence of a high consumption economy in the state and the weak inter-sectoral linkages among the primary, secondary and tertiary sectors are amply demonstrated by the steady growth of the tertiary sector especially transport trade and hotels, banking and other services even when there is a decline in the income from primary and secondary sectors.

State Income; Regional Distribution

2.10 There is a wide disparity in the distribution of income spatially. Regional estimates of income

(domestic product) are available at District level. The district income of Kerala at constant prices for the year 1980-81 and 1987-88 is given in table 2.3.

2.11 Among the districts in Kerala Ernakulam has the highest district income of Rs. 54721 lakhs followed by Trivandrum Rs. 41673 lakhs and Trichur Rs. 37957 lakhs. Wayanad has the lowest district income of Rs. 10713 lakhs in 1987-88. In respect of District's share in sectoral contribution of state income in 1980-81 Cannanore has the highest share in the SDP from primary sector (15.2%) followed by Quilon (13.2 per cent) and Kozhikode (10.7 per cent). During the same year Alleppey has the lowest share of 6.8 per cent. During 1987-88, however, Ernakulam has come to the top with 9.8 per cent followed by Quilon with 9.1 per cent. (Cannanore and Kasaragod together account for 11.1%)

2.12 In respect of the share of SDP from secondary sector Ernakulam maintained the lead with 19.8 per cent both in 1980-81 and in 1987-88, followed by Kozhikode (11.7%) in 1980-81 and 10.4 per cent in 1987-88). As for the tertiary sector Ernakulam maintained its largest share in 1980-81 (14.5% and in 1987-88 (13.8%) followed by Trivandrum (11.3%) and (12.6%) respectively.

2.13 The considerable variations in the structure of the economy across the districts continue to persist as can be seen from Appendix 2.5. During 1987-88, at constant prices the share of the primary sector in the district income ranged from 63.7 per cent in Wayanad to 26.3 per cent in Ernakulam. The percentage share of the secondary sector was highest in Ernakulam (31.2, followed by Kozhikode (25.7) and Idukki (25.2) and lowest in Kottayam and Malappuram (11.8). During 1987-88 the share of the tertiary sector has ranged from 51.3 per cent in Trivandrum to 19.6 per cent in Idukki.

2.14 The details of the relative performance of districts in terms of per capita income is given in Appendix 2.6. At constant prices Ernakulam and Idukki stood first and second with a per capita district income of Rs. 1922 and Rs. 1816 respectively. Malappuram District has the lowest per capita income of Rs. 920.

2.15 A study of the sectoral growth rate of income in 1987-88 over 1986-87 shows that in the primary sector Kozhikode district has recorded the highest growth rate of 17.7 per cent at constant prices followed by Idukki (14.8%) and Trichur (11%) while in the secondary sector Idukki district has shown the highest growth rate (5.3%) followed by Ernakulam (3%) and Trichur (2.1%). In the tertiary sector Ernakulam and Trivandrum districts have shown the highest growth rate (4.4%) followed by Pathanamthitta (4.3%) and Quilon (4.1%) as can be seen from table 2.4.

TABLE 2.4

Growth rate of District income during 1987-88 at 1980-81
Prices by Sector of Origin (Per cent)

District/State	Sector			Net Domestic Product
	Primary	Secondary	Tertiary	
Trivandrum	7.9	1.0	4.4	4.7
Quilon	1.5	1.9	4.1	2.6
Pathanamthitta	2.8	1.4	4.3	3.1
Alleppey	7.8	0.8	3.8	4.5
Kottayam	3.4	2.0	3.9	3.5
Idukki	14.8	5.3	3.6	10.1
Ernakulam	5.5	3.0	4.4	4.3
Trichur	11.0	2.1	3.8	5.8
Palghat	-6.4	-0.2	3.4	-1.3
Malappuram	-2.0	1.7	3.5	0.9
Kozhikode	17.7	1.3	3.5	6.9
Wyanad	0.1	-0.2	4.0	0.9
Cannanore	7.9	0.5	3.6	4.7
Kasaragod	6.9	0.4	3.4	-1.5
State	4.9	1.7	3.9	3.8

2.16 The lowest growth rate in the primary sector has been observed in Kasaragod at -6.9 per cent. In the secondary sector the lowest performance was exhibited by Palghat and Wynad (-0.2%) while in the tertiary sector the growth rate was lowest in Palghat and Kasaragod (3.4%). In the total net domestic product the highest growth rate was given by Idukki (10.1%) and the lowest by Kasaragod (-1.5%).

Employment

2.17 Mounting unemployment coupled with persisting under employment is the most serious socio-economic problem of Kerala. The magnitude of the situation is further aggravated by the influx of return migrants to the state mainly from the Arab countries. Labour market distortions, growth in the supply of labour force especially the educated job seekers, the sluggish growth of the economy particularly in the productive sectors and a growing mismatch between the demand for and supply of labour force at the subsectoral level are factors causing serious concern to the state. In fact Kerala which has only about 3.6 per cent of the total population accounts for about 10 per cent of the job seekers in the country.

TABLE 2.5

Distribution of work seekers in Kerala and India

(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

(1)	(2)	(3)	(4)	(5)
1982	20.86	197.53	10.36	97.68
1983	22.62	219.53	11.33	111.36
1984	24.58	235.47	12.63	125.36
1958	25.74	248.61	13.64	139.75
1986	27.04	301.31	15.06	164.52
1987	29.91	302.47	17.20	167.35
1988	29.01	300.50	17.16	..
1989*	30.67	..	18.61	..

Note: * Up to the end of July 1989.

Source: (1) Directorate of Employment

(2) Economic Survey, Government of India.

2.18 The number of registrants in the live register of the employment exchanges indicate the magnitude and structure of unemployment, especially among the educated job seekers. Allowances should be made for those registrants who are already productively occupied and also those who do not get themselves registered but are unemployed, however marginal it may be, to make the figures more realistic. The total number of registered work seekers has increased from 1.51 lakhs in 1960 to 2.94 lakhs in 1970. The number has further increased to 15.79 lakhs in 1980 and almost doubled to 30.67 lakhs as on 31-7-1989.

Distribution of work Seekers by Educational Levels

2.19 The distribution of work seekers by educational levels is given in Appendix 2.8. It is seen from the table that out of the total work seekers those having qualifications S.S.L.C. and above increased from 59.1 per cent of the total in 1988 to 60.7 per cent as on 31st July 1989. The fact they include over 15 lakh matriculates, about 1.8 lakh persons with Pre-Degree qualifications, one lakh graduates and 20 thousand post graduates indicates the extent of unutilization and under utilization of the educated manpower which could have otherwise formed the major source of economic growth.

Professional and Technical Work Seekers

2.20 The details of professional and technical job seekers are given in Appendix 2.9. The total number of professional and technical job seekers increased from 38205 in 1980 to 87482 in 1988. The figures as on 31-7-1989 stood at 91356. All categories of professional and technical work seekers increased from that of the previous year except for veterinary graduates revealing the acute unemployment even among the professionally and technically qualified job seekers.

Placements Through Employment Exchanges

2.21 Table 2.7 gives the number of placements made through the employment exchanges in Kerala. The number of placements continues to be insignificant when compared to the number of registrants in the live register which indirectly reflects the absence of a sufficiently large and growing organised sector.

TABLE 2.7

Number of Placements Through the Employment Exchanges in Kerala—1985-86 to 1989-90

Year	Number of Placements	Monthly Average No. of Employers using the Employment Exchanges
(1)	(2)	(3)
1985-86	13700	403
1986-87	15571	454
1987-88	13869	475
1988-89	15504	335
1989-90*	6791	

*Up to August 1989

Source: Directorate of Employment

Employment in the Organised Sector

2.22 The details of employment in the organised sectors are given in the Appendix 2.10. The employment in the organised sector has gone up by about 10,000 from 10.94 lakhs in 1987 to 11.04 lakhs in 1988. Though the public sector employment went up by about 17,000 the organised private sector employment declined by about 7,000 during this period.

Unemployment Assistance

2.23 Through the "Unemployment Assistance Scheme—1982," an amount of Rs. 23.53 crores was given as assistance to 215456 persons in 1988-89 and Rs. 13.38 crores to 226519 persons in 1989-90 (April to November). An amount of Rs. 81.33 crores was disbursed for this purpose since the inception of the scheme.

PRICES, COST OF LIVING AND WAGES

Wholesale Prices

In contrast to the last few years, the wholesale price index of agriculture commodities has declined during 1989. The index decreased by 59 points, from 962.9 in 1988 to 904.0 in 1989. The fall in prices of condiments and spices by 2.6% and oil seeds by 21.4% mainly contributed to this. However, prices of plantation crops, rice and molasses continued to rise. While rice and molasses showed marginal increases of 2.20% and 3.18% respectively, the plantation crops registered a sharp increase of 31.7%. The summary position of whole sale price index is shown in Table 3.1.

3.2 An analysis of month-wise indices shows that the index of rice was steady at 545.2 in all the months except January and the index of molasses went up every month till September 1989. A sudden spurt was seen in August 1989 and again in November 1989 after a fall in October. Price indices of condiments and spices were rather erratic, the peak being in June 1989 at 942.7. The increase in June was 61% and it showed a declining trend from July onwards. By the end of November the increase was only 18 per cent and it rose to 25.4% the end of December. The prices of fruits and vegetables kept on increasing all through the period and recorded an increase of 23% in November. Similarly the index of plantation crops

also showed a 41.2% increase. The month-wise index of commodities are given Appendix 3.1.

Retail Prices of Essential Commodities

3.3 The retail prices of essential commodities showed a mixed trend during 1989. When the prices of rice, blackgram, dhal, coconut oil, egg, dry chillies, coconut, firewood and washing soap showed a downward trend, the prices of greengram, redgram, groundnut oil, tapioca, banana, milk, corriander, onion, sugar and baby food showed upward trend. Prices of Edible oils except, coconut oil, witnessed high increases in 1989, compared to a fall in price in the previous year. The bumper crop of coconut in 1989 has perhaps caused a fall in the price of coconut oil. A redeeming feature in 1989 was the fall in price of rice from Rs. 5.46 per kg. in 1988 to Rs. 5.20 per kg. in 1989. The items which showed marked decrease in prices are coconut oil by 26.44%, coconut by 24.47% and firewood by 7.76%. Dry chilly showed a heavy fall in its price recording a decrease of 61.35%. The price of tapioca, a staple food item and also a substitute of rice especially among poor, shot up considerably registering an increase of 41.38%. The prices of banana, corriander and sugar showed large increases by 16.18%, 24.45% and 25.47% respectively. Surprisingly price of tea shot up considerably from May 1989, and showed 69.39% increase

TABLE 3.1

Wholesale Price Index of Agricultural Commodities 1987-89

(Base 1952-53—100)

Crops	Weight	Wholesale Price Index			Percentage change over Previous year	
		1987	1988	1989	1988	1989
(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Food Crops	63.5	708.5	695.9	725.1	(-)-1.78	4.20
Rice	40.4	529.1	532.7	544.4	0.68	2.20
Condiments and Spices	10.4	625.6	774.5	754.2	23.80	(-)-2.62
Fruits and Vegetables	10.7	1435.3	1199.1	1342.3	(-)-16.46	11.94
Molasses	2.0	858.2	881.1	909.1	2.67	3.18
B. Non-Food Crops	36.5	1323.5	1427.5	1214.6	7.86	(-)-14.91
Oil Seeds	25.5	1650.2	1795.2	1411.0	8.79	(-)-21.40
Plantation Crops	11.0	568.4	577.5	760.6	1.60	31.71
C. All Crops	100	933.0	962.9	904.0	3.20	(-)-6.12

Source: Directorate of Economics and Statistics.

TABLE 3.2
Average Retail Price of Essential Commodities

Commodity	Unit	Price as at the end of December			Percentage of variation	
		1987	1988	1989	1988 over 1987	1989 over 1988
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Rice	Kg.	4.61	5.46	5.20	18.44	(-)4.76
Greengram	"	7.15	9.76	10.34	36.50	5.94
Blackgram	"	7.41	11.75	11.63	58.57	(-)1.02
Redgram	"	7.33	6.89	7.42	(-)6.00	7.69
Dhall	"	14.34	12.57	12.20	(-)12.34	(-)2.94
Coconut Oil	"	33.58	35.28	25.95	5.06	(-)26.44
Groundnut Oil	"	27.66	24.75	26.98	(-)10.52	9.01
Refined Oil	"	43.05	39.67	44.05	(-)7.85	11.04
Tapioca	"	1.53	1.45	2.05	(-)5.22	41.38
Banana	"	4.36	4.14	4.81	(-)5.05	16.18
Milk (Cow)	Litre	4.88	4.93	5.25	1.02	6.49
Egg (hen)	Dozen	8.76	8.10	7.92	(-)7.53	(-)2.22
Potato	Kg.	3.84	3.15	3.26	(-)17.97	3.49
Corriander	"	19.86	9.53	11.86	(-)52.01	24.45
Chillies (dry)	"	22.71	46.11	17.82	103.04	(-)61.35
Onion	"	3.64	3.29	3.61	(-)9.62	9.73
Sugar	"	6.71	6.44	8.08	(-)4.02	25.47
Coconut (Without husk)	100	311.79	324.86	245.36	4.19	(-)24.47
Firewood (Local split) Qtl.	Qtl.	67.18	68.45	63.14	1.89	(-)7.76
Washing Soap (Sunlight)	Each	4.23	3.84	3.73	(-)9.22	(-)2.86
Electric Bulb (Osram 40W)	"	5.05	5.58	6.34	10.50	13.62
Aluminium Cooking Pot	Kg.	53.93	..	..	..	..
Baby Food	"	49.14	56.41	60.04	14.79	6.44

Source: Directorate of Economics and Statistics.

3.4 In respect of most items the monthly prices showed fluctuating trend. Exceptions are in the case of milk, baby food, mutton, toilet soap and electric bulb which showed upward trend all throughout the year. The table 3.2 and appendix 3.2 shows year-wise and month-wise average retail prices of essential commodities.

Consumer Price Index

3.5 The average consumer price index for the selected centres of Kerala in 1989 was 412 compared to

395 in 1988. In terms of percentage the increase is to 4.30 in 1989., as against 7.34 recorded in the previous year. Thus the record of prices management in 1989 was very much better than that in 1988. The consumer price index in 1989 was the highest in Quilon (436) followed by Malappuram (424) Trivandrum and Meppady (419 each), Kottayam, Calicut and Cannanore (418 each). The lowest index was registered by Munnar (395). The annual and monthly average indices, computed for fifteen selected centres, are given in table 3.3 and appendix 3.3 respectively.

TABLE 3.3

Annual Average Consumer Price Index Number in Selected Centres of Kerala

(Base 1970—100)

Centre	Average Annual Index Number			Percentage Variation	
	1987	1988	1989	1988 over 1987	1989 over 1988
(1)	(2)	(3)	(4)	(5)	(6)
1. Trivandrum	378	401	419	6.08	4.49
2. Quilon	390	416	436	6.67	4.81
3. Punalur	358	383	401	6.98	4.70
4. Alleppey	365	392	411	7.40	4.85
5. Kottayam	371	394	418	6.20	6.09
6. Mundakayam	352	377	404	7.10	6.90
7. Munnar	358	380	395	6.15	3.95
8. Ernakulam	354	385	399	8.76	3.64
9. Chalakudy	373	401	414	7.51	3.24
10. Trichur	364	392	400	7.69	2.04
11. Palghat	360	387	406	7.50	4.91
12. Malappuram	378	408	424	7.94	3.92
13. Kozhikode	374	404	418	8.02	3.47
14. Meppady	369	399	419	8.13	5.01
15. Cannanore	373	402	418	7.77	3.98
State Average:	368	395	412	7.34	4.30

Sources: Directorate of Economics and Statistics.

TABLE 3.4

Index Number of Prices Received and Prices paid by the Farmers

Year	Price received by farmers	Farm Cultivation cost	Domestic Expenditure	Price paid by farmers	Parity as 2 to 5
(1)	(2)	(3)	(4)	(5)	(6)
1986	921	1299	745	984	93
1987	1063	1413	804	1066	100
1988	1044	1520	860	1143	91
1989	1017	1604	897	1200	85

Sources: Directorate of Economics and Statistics.

3.6 It is quite heartening to note that though the indices were on the increase in absolute terms, the rate of increase was less in 1989 in all the centres. This implies the incremental rate of inflation was comparatively less during 1989, which was true in the context of low whole sale price index and the mixed trend shown by the essential commodities, during 1989.

Parity Index

3.7 Parity index is a measure of relative gains or loss of farmers consequent on price fluctuations in the economy, which depends on the prices paid and received by farmers, which in turn, will depend on cost of farm cultivation, domestic expenditure and market rate of farm products. To a great extent, the purchasing power of farmers depends on parity index.

3.8 During the year under review, the parity index was not favourable to the farmers, as the parity index was unfavourable to the farmers by 6 points, compared to the previous years. Table 3.4 illustrates this as the prices paid by farmers increased significantly by 57 points, where as the prices received by them decreased by 27 points. This might be the outcome of the general decrease in prices of primary commodities and the increase in the indices of farm cultivation cost. The farm cultivation cost increased by 84 points and the domestic expenditure by 37 points.

Farm Commodity Prices

3.9 Farm prices of agricultural commodities in general show a mixed trend during the year 1989. The average price was ruling high during the year compared to previous year in respect of paddy (+9.14%), Tapioca (+21.93%), pepper (+20.31%), Ginger (+25.43%), Cashewnut (+5.71%), Sugarcane (1.65%) and Banana (6.55%). On the otherhand the prices of Coconut and Arecanut recorded declining trend during the period. The fall in price of coconut

(24.97%) from Rs. 284.33 per hundred nuts to Rs. 213.22 is alarming. The reason for such a steep fall in price could be attributed to improved supply position during the year. Even the announcement of support price for Copra (Rs. 1500/qtl) by Government of India during the year did not seem to have helped much to prevent the fluctuation in prices of coconut and its products.

3.10 Trend of farm commodity prices for the period from 1985 to 1989 is given in Table 3.5

The Public Distribution System

3.11 The Public distribution system, functioning through a wide network of ration/fair price shops, aims primarily at protecting the interest of the vulnerable sections of the population, by ensuring the availability of essential commodities, especially foodgrains at reasonable prices. The system in Kerala which is one of the best in the country in terms of efficiency and coverage assumes added significance in the context of the states' persisting deficit in essential commodities, particularly rice, which is the staple food of Keralites.

3.12 The system of rationing as it exists today has the following unique features:

- (i) It covers virtually all the households in the State.
- (ii) There is a wide network of retail outlets providing easy access to card holders.
- (iii) It provides assured supply of essential commodities at notified prices.

3.13 The number of family ration cards in the State increased from 47.31 lakhs in 1987 to 48.07 lakhs in 1988 and went up further to 49.08 lakhs in 1989. The number of retail outlets also increased to 12,905 in 1989 from 12,828 in 1988., having an average of about 380 cards per rationshop.

TABLE 3.5

Average Farm Price of Principal Crops

Commodity	Unit	1985	1986	1987	1988	1989	(In Rupees)	
							Changes over 1988	% of Change
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Paddy	Qtl.	225.18	242.25	248.24	277.43	302.79	(+)25.36	(+)9.14
Tapioca	Qtl.	70.71	95.54	105.93	90.86	118.10	(+)21.24	(+)21.93
Coconut	100 Nos.	174.21	193.85	259.11	284.93	213.32	(-)71.01	(-)24.97
Pepper	Qtl.	3606.06	4749.75	5262.07	3519.49	4227.00	(+)713.51	(+)20.31
Ginger	Qtl.	1490.78	857.56	1366.01	1537.96	1929.1	(+)391.14	(+)25.43
Cashewnut	Qtl.	793.82	1074.47	1364.35	1093.94	1156.4	(+)62.46	(+)5.71
Sugarcane	Tonne	199.15	244.51	235.15	301.6	306.57	(+)4.97	(+)1.65
Arecanut	100 Nos.	10.35	12.04	10.93	12.29	11.69	(-)0.40	(-)3.25
Banana	100 Nos.	60.24	65.02	69.76	61.96	65.98	(+)4.02	(+)6.55

TABLE 3.6

Public Distribution System of Essential Commodities in Kerala

Particulars	Unit	1986	1987	1988	1989
(1)	(2)	(3)	(4)	(5)	(6)
1. No. of Ration Cards and Permits as on 1st April					
(a) Ration Cards for families	No.	4447714	4730975	4807111	4907648
(b) Ration Permits for Institutions	No.	7984	5961	6873	7523
2. No. of FCI Sub-Depots (as on 1st April)	No.	22	22	15	19
3. No. of Wholesale Shops (as on 1st April)					
(a) Co-operatives	No.	46	43	48	47
(b) Others	No.	245	250	249	247
(c) Total Wholesale Shops	No.	291	293	297	294
4. No. of Retail Shops (as on 1st April)					
(a) Co-operatives	No.	1400	1302	1251	1252
(b) Others	No.	11228	11481	11577	11653
(c) Total Retail Shops	No.	12628	12783	12828	12905
5. Quantity of Coarse Cloth (Std. Sales Allotted)		6713.75	2518.02	6381	..
6. Sugar (Allotted)	MT.	196565	141351	141152	148353.4
7. Palm Oil (Allotted)	MT.	9500	51500	51850	25800
8. Kerosene (Allotted)	KL.	237060	291017	308842	321575

Source: Directorate of Civil Supplies.

3.14 Under the rationing system, essential commodities like rice, wheat, sugar, kerosene and palmolein are allotted to the State every month by the Government of India. From February 1989 onwards Government of India have reduced the monthly allot-

ment of rice from 1,25,000 tonnes to 1,00,000 tonnes. As can be seen from the table 3.7 the import of rice on state account declined by 18% from 15.5 lakh tonnes in 1988 to 12.70 lakh tonnes in 1989.

TABLE 3.7

Import of Foodgrains on State Account (in '000 tons)

Month	1988		1989	
	Rice	Wheat	Rice	Wheat
(1)	(2)	(3)	(4)	(5)
January	145	35	125	15
February	135	35	100	15.8
March	125	20	100	15.7
April	125	20	100	15
May	125	20	100	15
June	125	15	100	15
July	125	15	100	15
August	145	15	100	15
September	125	15	120	20
October	125	15	100	25
November	125	15	125	35
December	125	15	100	20
Total	1550	235	1270	211.5

Source: Directorate of Civil Supplies

3.15 As a result the State Government was forced to reduce the scale of ration from 220 gms to 180 gms per adult per day. Thus the offtake of rice had declined by 23.5% from 16.61 lakh tonnes in 1988 to 12.71 lakh tonnes in 1989. The offtake of wheat however increased by 27.5% from 1.53 lakh tonnes in 1988 to 1.95 lakh tonnes in 1989. The average

monthly offtake of rice declined by 23% from 1.38 lakh tonnes in 1988 to 1.06 lakh tonnes in 1989 while that of wheat increased from 12,784 tonnes in 1988 to 16,243 tonnes in 1989. The scale of ration of articles such as sugar, kerosene and palmolein allotted per person continued as in the previous year.

TABLE 3.8
Distribution of Rice and Wheat through the Public Distribution System

Month	Rice Distributed (in tonnes)				Wheat Distributed (in tonnes)			
	1986	1987	1988	1989	1986	1987	1988	1989
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	120163	113135	149659	111147	8372	7702	9449	14245
February	108808	116899	148929	113039	6706	6996	9442	13093
March	123349	148120	162787	104342	6394	7380	10659	15492
April	120503	113566	145876	101297	5562	6260	10191	13724
May	128386	124647	141692	107075	6993	6091	11094	15546
June	129456	138085	133541	109274	8771	8373	14563	18240
July	147088	158587	136561	112249	10690	10533	16712	17813
August	145580	172356	159455	112729	10043	10294	13860	15498
September	153149	143894	127303	118903	8475	8243	13865	14922
October	130111	108629	127304	84345	8666	9566	15064	17241
November	114861	128839	115006	96525	8361	10459	13620	19492
December	133529	131205	112951	99872	8908	12311	12890	19609
Total	1554983	1597962	1661064	1270857	98441	104208	153409	194915

Source: Directorate of Civil Supplies.

3.16 To protect and safeguard the interests of the consumers various orders of a regulatory nature were issued under the Essential Commodities Act and are administered by the Civil Supplies Department. A consumer protection council has also been set up by the Government.

3.17 The State Government has launched a new scheme under which additional items like pulses, spices and condiments are also distributed through selected ration shops and Co-operatives to check the rise in prices and to ensure the quality of commodities. By the end of 1989, more than 3200 such outlets are functioning in the State.

The Kerala State Civil Supplies Corporation:

3.18 The Kerala State Civil Supplies Corporation is engaged in the purchase and distribution of essential

commodities like rice, wheat, edible oil, sugar etc., at reasonable prices. This helped in controlling the price level of these commodities to a very great extent. Apart from the general distribution through its normal outlets, special festival markets are also opened by the corporation during the festival seasons of Onam, Christmas, Bakrid etc. It also markets its own tea under the brand name 'Sabari' which has gained considerable customer acceptance. The turn over of the Corporation which was steadily on the increase since 1974-75 onwards has touched an all time high of Rs. 250.28 crores during 1988-89 against Rs. 219.94 crores in 1987-88. Details of essential commodities handled by the corporation during 1988-89 are given in Table 3.9. The quantity of rice procured and distributed by the Corporation during 1988-89 has increased substantially from 51,222 tonnes to 91,731 tonnes while the quantity of sugar and palmolein oil has decreased considerably.

TABLE 3.9
Essential Commodities distributed by Civil Supplies Corporation

(Value in Rs. lakhs Quantity in quintals)

Commodity (1)	1987-88		1988-89	
	Quantity (2)	Value (3)	Quantity (4)	Value (5)
Levy Sugar	1527390	7416.77	1477900	7508.91
Rice	512223	1788.21	917315	338.49
Free Sale Sugar	52061	311.02	25898	164.93
Palmolein oil (loose)	589588	9020.71	438394	76.09
Palmolein oil Tin (5 Kg.)	20416	349.49	24	0.45
Palmolein oil Tin (2 Kg.)	8272	197.66	61595	1298.18

Availability of Food

3.19 The internal production of rice declined further to 10.02 lakh tonnes in 1989 from 10.33 lakh tonnes in 1988. The import of rice on state account has declined from 15.50 lakh tonnes in 1989 to 12.70

lakh tonnes in 1989 due to the reduction in allotment by the Government of India from the central pool. Wheat imported on state account has also fallen to 2.16 lakh tonnes from 2.35 lakh tonnes in the previous year as given in the table 3.10.

TABLE 3.10
Availability of Food in the State

Particulars (1)	Unit (2)	1985 (3)	1986 (4)	1987 (5)	1988 (6)	1989 (7)
1. Production of Rice in the State	Lakh tonnes	12.56	11.79	11.34	10.33	10.02
2. Availability of Rice for consumption from production within the State*	Lakh tonnes	11.30	10.56	10.21	9.30	9.02
3. Import of Rice on State Account**	Lakh tonnes	14.60	15.50	16.60	15.50	12.70
4. Import of Wheat on State Account	Lakh tonnes	4.20	4.20	4.20	2.35	2.12
5. Production of Raw Tapioca	Lakh tonnes	36.94	32.76	25.76	31.81	28.02

Note:

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

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

3.20. The per capita consumption of cereals (excluding supplies through the Civil Supplies Corporation and private traders) is estimated to have declined by 15.6% from 263 grams per day per person in 1988 to 222 grams in 1989. The decline in the per capita availability of cereals is due to a marginal fall in the availability of rice from internal production, and about 25% decline in the distribution of rice through the Public Distribution System consequent on the reduction in allotment from the Central pool as given in the table 3.11

TABLE 3.11

Per Capita Consumption of Cereals in Kerala

Particulars	(grams per day)			
	1986	1987	1988	1989
(1)	(2)	(3)	(4)	(5)
1 Rice from internal production in the State	105	99	89	85
2 Rice distributed through public distribution system	154	155	159	110
3 Wheat distributed through public distribution system	10	10	15	18
Total cereals	269	264	263	222

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. The actual offtake from the public distribution system instead of imports and projected population for corresponding years are used.

Wages:

3.21. Even though the whole sale price index of agricultural commodities showed a declining trend, the wage rate of both skilled and unskilled workers increased during the period under review. This could be attributed to the increase in the price of some essential commodities in the retail market and the close relationship between prices and wages. Wage rate of skilled workers and unskilled workers increased to 3% and 5% respectively.

3.22. The average daily wage rate of carpenters and Masons increased by 4.84% and 4.96 per cent respectively, compared to the previous year. In absolute terms the daily wage of Carpenter increased from Rs. 47.50 in 1987-88 to Rs. 49.80 in 1988-89 and that of the Mason from Rs. 47.21 to Rs. 49.55 in the same period. Similar increase could be noticed in the wage rates of unskilled workers in the agricultural sector also.

3.23. This coupled with low prices of agricultural produce, even unremunerative at times, could be the major reasons for the farmers' unfavourable parity

index. The fall in price of coconut in 1989 caused enormous loss to the farmers. But the farmers are generally in a tight spot as even such adverse conditions do not, in any way provide any relief to him in the matter of payment of wages or other charges.

TABLE 3.12

Average Daily wage rates of skilled workers in the Agricultural sector

Year	Average daily wages rates		% of variation over the previous year	
	Carpenter	Mason	Carpenter	Mason
(1)	(2)	(3)	(4)	(5)
1980-81	19.82	19.78	..	..
1981-82	21.42	22.50	13.12	13.75
1982-83	23.40	23.52	4.37	4.53
1983-84	25.17	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
1988-89	49.80	49.55	4.84	4.96

Source: Directorate of Economics and Statistics.

TABLE 3.13

Average Daily wage rates of unskilled workers in the Agricultural sector

Year	Average Daily wage Rates of paddy field workers		% 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
1988-89	31.95	18.59	5.24	5.15

Source: Directorate of Economics and Statistics.

TABLE 3.14

Average Daily wages of skilled workers in the Construction sector

Year	Daily wages of skilled workers			
	Carpenter: I		Mason: I	
	Rural	Urban	Rural	Urban
	(1)	(2)	(3)	(4)
1981-82	22.52	22.87	22.66	23.01
1982-88	27.99	30.68	28.13	30.80
1983-84	33.43	35.00	33.29	35.12
1984-85	36.71	37.97	36.65	38.03
1985-86	40.91	40.67	41.10	42.01
1986-87	43.90	45.39	44.24	45.91
1987-88	49.30	50.08	49.32	50.04
1988-89	NA	NA	NA	NA

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)
1981-82	15.22	15.94	11.40	12.22
1982-83	17.85	19.09	13.53	14.44
1983-84	20.29	21.13	14.81	14.44
1984-85	21.90	22.80	16.37	17.38
1985-86	25.31	25.70	19.98	19.42
1986-87	27.66	28.42	21.05	21.93
1987-88	21.31	32.23	23.26	25.34
1988-89	NA	NA	NA	NA

Source: Directorate of Economics and Statistics.

AGRICULTURE

The relatively favourable weather conditions and the consequent improvement in the performance of many crops have raised high hopes in the Kerala Agricultural Scenario during 1989. This encouraging situation prompted to initiate a number of new innovative programmes which foster new investments.

4.2 The group farming programme for rice introduced during the year has been very effective in revitalising the rice production scenario with new vigour and enthusiasm and mass participation. Similarly the Special Employment Programme being launched is also emerging as a powerful instrument for accelerating private investment through credit linked agricultural programmes capable of generating productive employment in the rural areas.

Rainfall

4.3 The agroclimatic features of Kerala are generally favourable for a high level of land use and an intensive agriculture. It has the advantage of both South West and North East Monsoons. Though the normal rainfall received by the State is fairly high, its spread and intensity have shown wide variation in recent years. These two aspects are critically important in moulding the agricultural fortunes of the State. Against a normal rainfall of 3065 m.m. per annum, the rainfall received during 1989 was 2642 m.m. Though quantum-wise it was marginally less than the previous year (2653 m.m.) quality-wise, it was superior in view of its better spread, particularly the North East Monsoon (See Table—4.1 & 4.2). Still the consistent aberrations in the behaviour of monsoons set in during 1980-81 continue to persist. The summer showers are deficient by 30 per cent while South West and North East Monsoons are deficient by 9 and 18 per cent respectively. In spatial distribution also, it reveals a disparate picture recording the highest (3731 m.m.) in Idukki district and lowest (1776 m.m.) in Trivandrum district. The average annual rainfall in the districts of Kasaragode, Cannanore, Kozhikode, Ernakulam, Idukki, Kottayam and Quilon were much above the State average. Month-wise and district-wise data on rainfall are given in Appendix-4.1. The trend of rainfall during the last 10 years reveals that the departure of rainfall from its normal pattern in terms of intensity and spread has become more or less a perennial feature in Kerala.

Land Use Pattern

4.4 Land use statistics for the year 1988-89 in respect of Kerala are yet to be finalised. Data pertaining to the years 1986-87 and 1987-88 are presented in Table 4.3. The cropping intensity during 1987-88 has recorded an increase of more than 1 per cent over the previous year. This is mainly because of the

increase of 3.77 per cent under additional cropping. The net cropped area also increased marginally (4538 ha.) during the year. But a decrease in area under barren and uncultivable land (-9852 ha.) permanent pastures and grazing land (-622 ha.), land under miscellaneous tree crops (-6008 ha.) and cultivable waste (-14240 ha.) during the year did not appear to have helped a corresponding increase in net cropped area. Instead the reduction in area under these categories has largely been accounted for by the increase in land put to non-agricultural uses (+21785 ha.). The area under current fallows (+3347 ha.) and fallows other than current fallows (+1052 ha.) also increased. The over all land utilisation pattern shows that 56.91 per cent of the geographical area in the State is devoted for crop production, while 27.83 per cent is for forests and 7.33 per cent for non-agricultural uses.

4.5 The proportion of land under the categories barren and uncultivable land (1.87 per cent), cultivable wastes (2.97 per cent), fallow other than current fallow (0.74 per cent) and current fallow (1.23 per cent) are insignificant individually, but they together account for over 2.64 lakh ha. Though final estimates are not available, the land utilisation pattern of 1988-89 is likely to improve further on account of the better weather conditions prevailed during the year.

Agricultural Production

4.6 The production performance during 1988-89 shows that the crop sector is on the path of revival from the ill effects of recurrent droughts which persisted continuously over the last few years. Coconut and pepper are the two crops, which suffered considerable loss on account of drought. Both these crops have staged spectacular recovery during 1988-89. Improved weather conditions paved the way for increase in the area under cultivation in respect of the crops of coconut and pepper by 91102 ha. and 18477 ha. respectively. Such a trend was seen in the case of area under crops like Arecanut, Ginger and Sesamum. However, the declining trend in the area under food crops continue to persist despite favourable weather conditions. Rice, the principal food crop of the State has lost 26,525 ha. of area during the year. Others which have suffered considerable losses in area include Tapioca (-14157 ha.), Cardamom (-5250 ha.) Cashewnut (-1946 ha.) and Groundnut (-4087 ha.)

4.7 The productivity of crops in general were encouraging. Almost all the major crops recorded positive growth in productivity during the year. They include Rice (1.52%), Pulses (1.10%), Sugarcane (1.3%), Turmeric (1.88%), Cardamom (12.5%), Cashewnut (23.43%), Coconut (2.73%) Tea (16.87%)

and Coffee (106.87%). But the productivity of spices in general have declined. Pepper, the major spice crop, suffered the biggest loss (-19.37%) followed by ginger (-9.71%). Tapioca and Ground nut are the two major crops which showed declining trend both in area coverage and productivity.

4.8 With regard to production, the overall performance has been encouraging with a number of crops like pulses (5.72%), Sugarcane (4.35%), Turmeric (5.70%), Cardamum (2.82%), betelnut (2.12%), Cashewnut (21.35%), Coconut (14.79%), Tea (26.50%), Coffee (106.87%) and Rubber (9.58%) showing improved performance. In the case of rice though there was improvement in productivity this did not help increasing the total production owing to the decline in area. Consequently the production declined by 2.93 per cent. Tapioca and Groundnut also suffered large decline in production on account of decrease in both area and productivity. These crops recorded negative growth rates of 13.42 and 65.85 percent respectively. The other important crop which showed decrease in production during the year was pepper (-9.2%). Relevant data furnished in Table 4.4.

Overall Trend in the Performance of Different Categories of Crops.

4.9 Category-wise indices of area, production and productivity of major crops for the last ten years are given in Table 4.5. The crop sector in general reveals a declining trend in production during the last decade with the index numbers recording a steep fall from 100.17 to 80.61. Despite marginal increase of the index on area under crops from 101.48 to 103.62, the overall production level could not be sustained because of the sharp and continuous fall in productivity index from 98.71 to 77.72. The drop in the overall productivity index need not necessarily be due to the decrease in productivity of the crops per se, but may also be due to shift in cropping pattern, from high volume low value crops to low volume high value crops. Such an observation is more relevant in Kerala where the cropping pattern has shown a definite shift in favour of high value crops like Coconut Rubber etc., from traditional subsistence crops like Rice, Tapioca etc. This is evident from the changing trend in area under foodgrains as well as non food grains, as revealed by their respective index numbers. The index on area under food crops plummeted from 102.55 to 71.54 while the corresponding index for non food grains shot up from 101 to 118.39.

4.10 The productivity index on the other hand shows a different picture. The food grains as a group gained substantially in productivity during the last one decade, by 13%, while the non-foodgrains as a group suffered steep fall by 31%.

4.11 On production front, index of both food crops as well as non food crops present a declining trend though for different contributing factors. The index number on foodgrain production declined from 98.67 to 78.46 while that of non foodgrains from 100.52 to 81.08.

4.12 On analysing the performances category-wise it could be seen that the non-food grain crops in general recorded steady increase in area with the only

exception of fruits and vegetables. In the case of fruits and vegetables also the negative growth in area as revealed by the index number (from 103.20 to 80.96) is due to the wrong inclusion of tapioca under this category, which is a food crop. The drastic reduction in area accounting for more than 1.2 lakh ha. under tapioca has not only contributed for the dip in production index of non food grain crops but also in concealing the increase in area under other crops grouped in this category of crops. Plantation crops recorded the maximum growth in area (54 points), followed by condiments and spices (28 points), Oil seeds (26 points) and drugs and narcotics (14 points). On the production front such impressive performance is visible only in respect of a few categories, namely plantation crops (66 points), Oil seeds (19 points), condiments and spices (29 points) and miscellaneous crops (24 points). The productivities of non food crops in general are either stagnant or on the decline, with the only exception of plantation crops. Even in the case of plantation crops, the growth in productivity (9 points) is only marginal when compared to the high degree of expansion in area achieved in the past. The productivity levels of many of these cash crops are very low compared to their potential. Though the increasing trend in area under cash crops definitely reflected a high degree of commercialisation in Kerala Agriculture it failed to get manifested by way of increased production because of low productivity due to poor management.

Performance of Major Crops

(a) Rice

4.13 Despite favourable weather conditions, rice production continued its declining trend indicating thereby that factors other than weather are responsible for the poor showing. The production fell from 10.32 lakh tonnes to 10.02 lakh tonnes. In the Virippu season of 1988 also the production of rice continued to be deficient (-40000 tonnes). It is contributed both by decline in area (-7273 ha.) as well as productivity (-95 kg). However the production improved marginally during Mundakan (3867 tonnes) and Punja seasons (5975 tonnes). Though the area under Mundakan crop declined considerably (-19740 ha.) the impressive increase in productivity (130 kg. per ha.) helped in wiping out the resultant deficit. Punja crop showed better performance, with positive growth both in area (488 ha.) and productivity (71 kg.)

4.14 The overall productivity of rice touched an all time peak of 1735 kg. per ha. during the year. Punja season continued to enjoy the highest productivity (2106 kg/ha) compared to virippu (1653 kg.) and Mundakan (1730 kg.). Season-wise data on area, production and productivity of rice is given in Table. 4.6

4.15 High yielding variety programme, considered to be the key for increasing the productivity and production of rice in Kerala, appears to be hobbling much behind expected levels. The only redeemable feature of the high yielding variety programme during 1988-89 is that the coverage has increased considerably compared to the previous year. In terms of percentage to total rice area it works out to 23.72 compared to 19.82 for the previous year.

4.16 Surprisingly the productivity of high yielding varieties of rice has declined from 2075 kg./ha. in 1987-88 to 1982 kg/ha, a fall of 4.48 per cent. The productivity of high yielding varieties does not reveal a steady and stable trend from 1984-85 onwards. The drop in productivity of high yielding varieties during 88-89 is all the more disturbing because the productivity of rice crop in general recorded a positive growth during the year. Among the different seasons, virippu crop suffered the maximum set back in productivity (-11.09%). The reluctance of the Kerala farmer to go in for higher coverage of high yielding varieties could be attributed to their disappointing field performance and the high degree of annual and seasonal fluctuations. With an incremental yield of fourteen per cent as revealed during 1988-89 they are incapable of replacing the local varieties on a sustainable basis. Season-wise performance of high yielding varieties of rice during 1987-88 and 1988-89 is shown in Table—4.7.

4.17 Particulars of district-wise performance of rice production during 1988-89 is more or less comparable to 1987-88 as could be seen from Table. 4.8 Excepting the districts of Palghat, Wayanad, Idukki and Kasaragod the crop suffered marginal set back in production. Even in the districts where the production increased, the same was only nominal. Alleppey district recorded substantial increase in area (3641 ha.) while there was considerable reduction in area in the districts of Trivandrum (1813 ha.) Quilon (2351 ha.) Ernakulam (8552 ha.), Trichur (5314 ha.) Palghat (2372 ha.) Malappuram (3762 ha.) Kozhikode (2001 ha.), and Cannanore (1701 ha.). In productivity of rice, the districts of Pathanamthitta (2161 kg), Alleppey (1827 kg.) Kottayam (2112 kg.) Idukki (2167 kg), Palghat (1933 kg.) and Wayanad (1972 kg) are far ahead of the state average.

(b) Pulses

4.18. Pulses performed very well during 1988-89 with area, productivity and production making positive growth. The area under the crop increased from 25,711 ha. in 1987-88 to 26,881 ha. The increase in productivity was only nominal from 725 to 733 per ha. The production of 19705 tonnes recorded during 1988-89 is higher by 1066 tonnes than the previous year. Palghat district continues to contribute the largest share in area and production of pulses followed by Cannanore. The highest productivity is in Quilon district (920 kg) followed by Alleppey district (865kg). Trivandrum district which ranks fourth in area coverage (2394 ha) has the lowest productivity (192 kg) in the State.

(c) Coconut

4.19 Coconut production which has all along been presenting a dismal picture during the last one decade has shown a dramatic reversal of trend during 1988-89. Among the perennial crops of Kerala, Coconut, perhaps, is the most sensitive one to weather conditions. It is therefore natural that it has gained substantially, from the favourable rainfall during the

year. The growth rate of 14.79% recorded in production is the highest ever recorded in Kerala. The production during the year is 3841 million nuts which is almost comparable to the production levels achieved by the crop in early seventies. The area under the crop also recorded an all time high of 8.66 lakh ha, with an increase of 91102 ha. during 1988-89 (11.75%). However, productivity has increased, only marginally, from 4315 nuts to 4433 nuts/ha. in 1988-89. The crop continues to linger under low levels of productivity compared to the neighbouring states. Ernakulam (5706 nuts) ranks first in terms of productivity, followed by Trichur (5360), Kozhikode (5017) and Trivandrum (4823). These four districts account for nearly 41% of the area under the crop. Quilon, Alleppey, Malappuram and Cannanore districts which contribute another 37% of the area are lagging much behind the state average in respect of productivity.

(d) Pepper

4.20. Next to Coconut, Pepper recorded the highest coverage in area (+18477 ha.) during the year. The area under the crop touched an all time high of 1.65 lakh ha. However, this impressive performance in area could not be repeated in the productivity front which has slumped down from 320 kg/ha to 258 kg/ha. The Production had picked up substantially during 1987-88 (46819 tonnes) but suffered heavily (42513 tonnes) during the year consequent to the drop in productivity. Idukki district is the largest producer of pepper in Kerala (32 percent) followed by Wayanad (21 percent). The largest share in area is also accounted for by Idukki (20 percent), while the highest productivity is in Wayanad district (473 kg/ha) In all other districts the productivity of the crop is much below the state average.

(e) Tapioca

4.21 Tapioca is a losing proposition in every respect. The area has come down from 1.72 to 1.58 lakh ha. and production from 32.36 to 28.01 lakh tonnes. The productivity also declined from 18717 to 17650 kg/ha. Quilon district accounts for the largest share, both in area (25%) and production (22 percent) of the commodity followed by Trivandrum district (23 and 21% respectively).

(f) Cashewnut

4.22 The production of Cashew increased from 81481 to 98878 tonnes during 1988-89. Increase in productivity from 670 to 827 kg/ha. made it possible to secure the above increase in production. The area on the other hand declined from 1.21 to 1.19 lakh ha. during the period.

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

Plantation Crops.

4.24 The final estimates of area under plantation crops in Kerala for the year 1988-89 are not readily available. However, the production estimates as reported by the Commodity Boards indicate that the plantation crops in general performed very well during the year.

Rubber

4.25 Production of Rubber, the principal plantation crop of Kerala, registered an impressive growth of 9.58 per cent during the year, with an all time high of 2.384 lakh tonnes. The All India production during the year is estimated to be around 2.59 lakh tonnes. The contribution of Kerala in All India production during the year works out to 92 per cent. Consumption of natural rubber in Kerala during 1988-89 increased to 43225 tonnes from 39337 tonnes in 1987-88 while the All India consumption for 1988-89 was 313830 tonnes. The share of Kerala in total consumption is only 14%. Imports of natural rubber in the country during the year was 59835 tonnes. Data on production, import, export and consumption of rubber in India are given in Table 4.10.

4.26 The market price of rubber was steadily on the increase during the last four years as could be seen from the trend of prices given in Table 4.12. The price was at its peak of Rs. 2538 per quintal during July 1989. The average price in Kottayam market during 1988-89 was Rs. 1815 a quintal against the fair price of Rs. 1780 fixed by Government of India.

Tea

4.27 Against the total production of 701.087 million kgs. of tea estimated for the country during 1988 the contribution of Kerala is 65.771 million kgs. The production in Kerala during the year was more by 9.495 M.kgs. (16.87%) than the previous year. The increase in production is entirely due to the improvement in productivity from 1625 to 1899 kg./ha. as the area under the crop was stagnant around 34640 ha. Export of tea from the country also increased from 204.23 M.kgs. in 1987 to 215.42 M.kgs. However, the average auction price of tea fell from Rs. 22.28 per kg. to Rs. 20.49 per kg during the period. Relevant data on the commodity are given in Table 4.13.

Coffee

4.28 Like Tea, the area under coffee was also stagnant around 65637 ha. in Kerala during 1988-89. According to the estimates of UPASI production of coffee in the country as well as the State has almost doubled during 1988-89. Production of Coffee increased from 1.25 lakh tonnes to 2.16 lakh tonnes in 1988-89 for the country while that for Kerala it increased from 22925 tonnes to 47425 tonnes during the same period. This commendable performance in production is due to the increase in productivity from 349 kgs per ha. in 1987-88 to 722 Kgs. The average price of all categories of coffee both in pool sales as well as in export were on the increase during 1988 compared to 1987. However this trend could not be sustained during 1989 consequent to the termination of the International Coffee Agreement in 1989. The export prices tumbled from Rs. 2014.75 per 50 kgs. to Rs. 1848.50 in respect of plantation A and from 1667.25 to 1544.50 in respect of Ar a. cherry A.B and from Rs. 1537.50 to 1288.75 in respect of Rob' cherry A.B variety. Nevertheless the quantity exported increased from 92461 tonnes in 1987-88 to 98247 tonnes in 1988-89. Relevant statistics on coffee are furnished in Table 4.14.

Cardamom

4.29 Eventhough the area under cardamom in Kerala, has declined from 64627 ha. to 59377 ha. during 1988-89, the production has increased from 2050 to

2108 tonnes. Kerala contributes about 65 percent of the total cardamom produced in the country. The productivity of the commodity in Kerala (36 kg.) during the year was higher than the All India average (31 kg.). The average price of cardamom in Kerala during 1988-89 was only Rs. 134.09 per kg. against Rs. 141.68 kg. prevailed during the previous year. Export of Cardamom from the country during the year (787 tonnes) was also not very encouraging. Relevant data on cardamom are furnished in Table 4.15.

Supplies and Services

4.30 The Seed Industry in Kerala is still in its nascent stage. The Department of Agriculture, therefore continues to provide the seed support by arranging the multiplication and distribution from the departmental farms as well as through organised programmes involving selected registered growers. During 1988-89 a total of 1980 tonnes of quality seeds of high yielding varieties of paddy were distributed. This is in addition to the 26164 numbers of minikits of improved strains distributed under the minikit programme. Other seeds distributed include 120.8 tonnes of pulses, 47.50 tonnes of sesamom and 3 tonnes of groundnut.

(b) Fertilizers

4.31 Fertilizer consumption has registered phenomenal increase from 182490 tonnes in 1987-88 to an all time high of 213927 tonnes during 1988-89. The percentage growth works out to 17. In terms of consumption per unit area it works out to 74.5 kg. per ha. of nutrients which is fairly high. The highest growth in consumption is recorded by Potash (32 per cent. followed by Nitrogen (13 percent). The impressive growth of potassic fertilizers indicates that scientific manuring of coconut is also picking up slowly but steadily. Data on nutrient-wise consumption of fertilizers during the last 8 years is given in Appendix 4.3.

(c) Plant Protection Chemicals

4.32 The consumption of plant protection chemicals also increased from 1059.00 tonnes to 1373.14 tonnes (active ingredients) during 1988-89. This has resulted in substantial increase in area covered under plant protection from 5.366 lakh ha. to 7.58 lakh ha. Other plant protection services rendered during the year include rodent control operations in 79900 ha. weed control operations in 1.31 lakh ha. distribution of 844 plant protection equipment and release of 216.44 lakh parasites for the biological control of the black headed coconut caterpillar.

(d) Soil testing Service

4.33 Soil testing services were rendered by the Department of Agriculture through the 12 Soil testing laboratories and 2 Mobile laboratories. A total of 2.21 lakh soil samples were analysed during the year.

(e) Quality Control of inputs

4.34 With a view to ensure quality of inputs 1600 fertilizer samples and 1056 pesticide samples were drawn from private traders and subjected to detailed analysis during 1988-89.

(f) *Extension Service*

4.35 The reorganised extension service with Krishi Bhavans in every panchayat introduced during 1987, could give a new impetus for the agricultural development efforts of the State. With easy access to supplies and services coupled with timely and close extension support a good beginning could be made in many areas of crop production. The development strategy was centred around developing location specific credit linked programmes with accent for group management. During 1988-89 a total of 3058 credit schemes were formulated by the Krishi Bhavans with an outlay of Rs. 46.60 crores covering 44294 ha. The credit disbursed under these schemes during the year was Rs. 24.53 crores benefiting nearly 98000 farmers.

4.36 The Krishi Advisory Councils set up at the panchayat, District and State levels were also active during the year ensuring people's participation for the innovative programmes initiated through the Krishi Bhavans. The Group Farming for rice launched by the Department of Agriculture in the Khariff season of 1989 was a land mark in the history of rice cultivation in Kerala. The programme was successful in generating new hopes and confidence among the rice growers who were in a State of inertia during the last so many years. The coverage under the programme during the year is reported to be 1.73 lakh ha. The programme received wide-spread acclaim from all concerned with rice production such as cultivators, agricultural labourers, farmers organisations etc. Though final estimates are yet to be available preliminary assessments indicate that spectacular increase in productivity of rice and considerable reduction in cost of cultivation could be achieved through the programme. Encouraged by the phenomenal success and the growing enthusiasm among the farmers the concept of group management was extended to coconut also during the late half of 1989. Here the emphasis was mainly on organising scientific manuring, irrigation and health cover on an organised community basis. This programme is also getting recognition in a fairly large measure.

(g) *Information Communication Support*

4.37 Farm Information Bureau, being the unified agency provided active information and communication support to the farm front through various media. As in the previous years the Bureau associated itself with the various development activities launched by the Departments in the agricultural and allied sectors. Group farming for paddy, observance of 1989 as the pepper year, Onam vegetable cultivation and procurement programme etc. organised by the Department of Agriculture. Intensive Livestock Development Programme and Model Dairy Colony Programme of the Animal Husbandry Department, Fodder Development Programme of the Department of Dairy Development etc. were important among the occasions when the Bureau provided active information support. Active liaison was also maintained with All India Radio and Doordarshan during the year for broadcast and telecast of farm news, farm features and special programmes on new developments in the farm front. Colour T.V. sets and VCPs were distributed to agricultural sub-divisions with a view to involve the field extension organisation also as part of the information communication efforts utilizing electronic media. The Bureau also participated in major exhibitions both within and outside the

State. Major physical achievements of the Bureau include the broadcast of 844 farm news bulletins and 6716 news items through All India Radio, distribution of 3.38 lakhs of handouts/pamphlets, 4.56 lakhs Kerala Karshakan, conduct of 24 rural exhibitions, 34 film shows, 39 seminars, release of 101 farm features, participation in 5 major exhibitions and 47 doordarshan coverages.

Prices of farm Inputs

4.38 Data on average prices of important agricultural inputs during 1987-88 and 1988-89 are given in Appendix 4.4. Excepting paddy seeds, green manure seeds and coconut seedlings prices of all major inputs including fertilizers remained constant during the period.

Agricultural Credit

4.39. Credit is considered to be the lever for development. In Kerala, the Co-operative Credit structure comprises of the Kerala State Co-operative Bank with its 14 district banks and 1580 Primary agricultural Credit Societies and the Kerala State Agricultural Development Bank with its 40 affiliated primary agricultural development banks. The credit operations of these institutions include those financed from own funds as well as refinanced by NABARD. The refinance assistance provided by the National Bank has increased steadily from Rs. 53.31 crores in 1986-87 to Rs. 58.06 crores in 1987-88 and further to Rs. 71.26 crores in 1988-89 registering an increase of 24% over the previous year. A review of the National Banks refinance revealed that out of a total refinance of Rs. 71.26 crores provided by NABARD during 1988-89, the share of Kerala State Co-operative Agricultural Development Bank alone works out to Rs. 29.11 crores (40.85%) followed by Commercial Banks Rs. 25.38 crores (35.62%), State Co-operative Bank Rs. 13.08 crores (18.38%) and RRBs Rs. 3.69 crores (5.17%). The largest proportion of disbursement was absorbed by the non-farm sector (outside IRDP) Rs. 17.41 crores (24.43%) followed by IRDP Rs. 16.56 crores (23.24%). In the farm sector, plantation and horticulture accounted for the largest share of refinance, Rs. 15.62 crores (21.91%) followed by minor irrigation and land development Rs. 9.18 crores (12.88%), farm mechanisation Rs. 1.14 crores (1.60%). Compared to previous year, the refinance assistance for IRDP and plantation/horticulture crops has increased by 3.37% and 7.72% respectively, where as the assistance for minor irrigation including land development decreased by 26.91% and farm mechanisation by 10.24%. In the case of allied sectors, disbursements under animal husbandry and dairy schemes recorded increases to the tune of Rs. 4.17 crores over the previous year level (Rs. 2.92 crores). Out of the total refinance provided to Kerala State Co-operative Bank, about 47 percent was for non-farm sector (under IRDP and outside IRDP). Over and above these refinance disbursements, National Bank also sanctioned a sum of Rs. 1.17 crores from the National Rural Credit Fund to strengthen the share capital base of the co-operatives.

4.40. The total advances in Kerala by Commercial Banks as on 30th September 1989 was Rs. 3823.52 crores against Rs. 3259.26 crores for the corresponding period of 1988. The priority sector advances as on

30th September 1989 was Rs. 1775.19 crores which constitute 46.43% of the total credit. The flow to agriculture was Rs. 688.06 crores (38.76%). In the agriculture and allied sectors the loan outstanding had reached a level of Rs. 634.7 crores representing 37.99% of the total priority sector credit and 17.14% of the total credit.

4.41. Co-operatives are the main channel for, the disbursement of agricultural credit. Kerala State Co-operative Bank, the apex institution in the co-operative credit structure, disbursed Rs. 27,465.26 lakhs under S.T., M.T. and LT loans, out of which the credit for agricultural purpose alone accounts for Rs. 12040.79 lakhs i.e. 43.84% of the total credit. The outstanding at the end of the co-operative year 1987-88 was Rs. 24,240.42 lakhs against Rs. 15,882.10 lakhs as on 30-6-1987. The overdues which stood at Rs. 174.33 lakhs at the end of June 1987 had risen to Rs. 387.07 lakhs in June 1988.

4.42. The co-operative credit structure in Kerala has been built up on the best possible traditions of co-operative ideals and democratic set up. During the co-op. year 1988-89, 1580 primary agricultural credit societies with a membership of 78.08 lakhs were engaged in the dispensation of credit. The average membership per society has increased from 4632 in 1987-88 to 4942 in 1988-89 raising the average share capital per society to Rs. 4.37 lakhs from Rs. 4.02 lakhs in 1987-88. The working capital per society has gone up from Rs. 61.22 lakhs in 1987-88 to Rs. 68.23 lakhs in 1988-89. The average deposit per society has increased from Rs. 35.53 lakhs in 1987-88 to Rs. 40.95 lakhs in 1988-89 raising the average deposit per member to Rs. 829 from Rs. 767. The percentage of borrowing members to total members decreased from 42.46% to 38.15% during 1988-89. Though the percentage of borrowers has decreased, the average loan advanced per borrowing member has increased from Rs. 2273 in 1987-88 to Rs. 2521 in 1988-89.

4.43. The agricultural credit societies in Kerala have been performing quite well in dispensation of credit, mobilisation of deposits, supply of agricultural inputs etc. The total loan disbursed during 1988-89 was Rs. 751.17 crores against Rs. 703.73 crores in 1987-88, with an increase of 6.74%. Major portion of the loan disbursed was for non-agricultural purposes. The loan advanced for agricultural purpose alone aggregates to Rs. 329.52 crores i.e. 43.87% of the total advance. This is against Rs. 326.83 crores (46.44%) advanced during the previous year. The disbursement of Rs. 421.65 crores (56.13%) during 1988-89 under non-farm sector is much above the achievement during 1987-88 (Rs. 376.90 crores). The loan outstanding as at the end of 1987-88 was Rs. 720.89 crores which has increased to Rs. 814.32 crores in 1988-89. The loan overdue has increased from Rs. 133.66 crores to Rs. 163.92 crores during the corresponding period and consequently the percentage of overdue to loan outstanding has ascended to 20.13 from 18.54 in 1987-88. In regard to mobilisation of deposits, the co-operatives were able to raise Rs. 178.85 crores against the target of Rs. 60.00 crores, during the mobilisation campaign organised in April 1989.

4.44. The performance of the credit co-operatives in the State is by and large encouraging. Out of 1580 primary agricultural credit societies, 1540 societies have paid secretaries. The number of societies on profit has declined from 807 in 1986-87, to 782 in 1987-88 and 777 in 1988-89. As on 1989-90, 25 societies were dormant, 773 working on loss and 30 without profit or loss.

4.45. The selected indicators of the performance and credit operations of Primary Agricultural Credit Societies during 1986-87, 1987-88 and 1988-89 are given in Appendix 4.5.

4.46. The long term credit requirements of the agriculturists are met by the long term credit structure comprising of Kerala State Co-operative Agricultural Development Bank and its primaries. During the financial year 1988-89, against a target of Rs. 50.00 crores fixed by NABARD, the Bank's achievement was 44.35 crores the percentage being 88.7. The various developmental purposes covered by the Bank's lending activities include minor irrigation, farm mechanisation, land development including soil conservation, reclamation, cultivation of horticultural/planation crops etc. and other diversified activities like dairy, fish culture, poultry, gober gas/biogas, goat rearing, bullock and bullock cart, sericulture etc. and agrobased industries. In the dispensation of credit, schematic lending was given top priority. Out of the total loans advanced, the major share of Rs. 22.15 crores (49.94%) was for schematic lending and the amount advanced under ordinary lending was only Rs. 11.50 crores (25.93%) followed by non-farm sector which absorbed Rs. 10.74 crores (24.13%). The schematic and ordinary loans issued by KSCADB at the primary level, during the last three financial years are given in Appendices 4.7 and 4.8. For mobilising the required resources for the credit programmes, the Bank had floated debentures-ordinary debentures for Rs. 11.30 crores, schematic debentures for Rs. 18.98 crores and non-farm debentures for Rs. 14.38 crores. With the objective of helping the rural poor, a rural housing scheme is implemented by the Bank with the assistance of National Housing Bank. An amount of Rs. 69.00 lakhs has been advanced during 1988-89 (upto 15th December 1989) under this scheme. As a result of revision of norms by NABARD, 30 out of 40 Banks fall in the category of restricted lending. The percentage of overdue to demand at the KSCADB level which stood at 35.59% as on 30-6-1988 has increased to 40.32% as on 30-6-1989.

4.47. National Co-operative Development Corporation is a financing institution for the development of the co-operative sector in the country. NCDC had financed programmes for processing, storage and marketing of agricultural produce in the farm sector and for supply of consumer goods in rural areas. During 1988-89, a sum of Rs. 180.00 lakhs has been sanctioned for providing margin money assistance to co-operatives which cover CAMPCO (Rs. 30.00 lakhs), Marketing Federation (Rs. 60.00 lakhs), Rubber Marketing Federation (Rs. 30.00 lakhs), RAIDCO (Rs. 10.00 lakhs) and Coirfed (Rs. 50.00 lakhs). The assistance provided in the non-farm sector was to equip the co-operatives with facilities required to promote income generating activities such as poultry

and fishery for the benefit of the rural poor. In Kerala, NCDC had released a sum of Rs. 1371.21 lakhs under various developmental activities during 1988-89. The integrated co-operative development project implemented with financial support from NCDC cover the districts of Waynad, Palghat, and Kottayam. The amount released during 1988-89 by NCDC for implementing the project works out to Rs. 83.438 lakhs. The State also participated in the NCDC III World Bank aided storage project for construction of rural godowns involving a storage capacity of 60,000 tonnes at a total cost of Rs. 10 crores. During 1988-89, NCDC has released a sum of Rs. 14.79 lakhs under this project. Training of personnel is an integral part of the projects promoted and financed by the Corporation for improving the operational efficiency of the co-operatives. The training programmes are organised by the Agricultural Co-operative Staff Training Institute (ACSTI) functioning under the Kerala State Co-operative Bank. The total financial assistance released to Kerala by N.C.D.C. under the various programmes upto 1987-88 (cumulative from 1962-63 to 1987-88) works out to Rs. 3268.59 lakhs.

Production Programmes

4.48 A number of new programmes were initiated in the crop production sector during 1989. They include group farming for rice, group management for coconut, and special employment programme. Major agricultural-programmes implemented during 1988-89 are detailed below.

(i) Group Farming for rice

4.49 The scheme was launched for the first time during khariff 1989 covering 1.73 lakh ha. The objective of the scheme is to invigorate the rice production scenario by improvement in productivity and reduction in cost through group management. Tillage operations using tractors, procurement and transport of seeds, fertilizers etc., community nurseries for rice, plant protection operations, water management and such other activities which are amenable for group action were identified and organised on a community basis. The programme was vigorously pursued during the Mundaken and Punja seasons as well.

(ii) Group Management for coconut

4.50 The concept of group management was extended to coconut also by initiating a pilot programme in Onattukara region. Irrigation, scientific manuring and plant health cover are the main activities under this programme. This is being implemented with the active involvement of CPCRI, farmers organisations etc. on an area wide basis.

(iii) Special Employment Programme

4.51 With a view to generate additional employment opportunities to the unemployed agricultural labourers in rural areas a new programme was introduced during 1989. The programme is conceived as a community effort to be implemented with the active involvement of agencies like Panchayats, Krishi Bhavans, Credit Institutions, participating farmers and

farm workers. Under the programme 25 per cent subsidy is being provided to labour intensive infrastructural development works to be executed on an area wide basis engaging the unemployed labourers recruited by the panchayats. The investment required would be found from credit agencies and the infrastructural development part of the investment will be organised under the supervision of the works committee to be set up by the panchayats. Being a new idea involving a number of agencies the programme has to surmount a number of operational problems. It is expected that it would be gaining momentum from 1990-91 onwards.

Other Agricultural Programmes

4.52 Programmes implemented for rice development in addition to group farming include the seed multiplication and distribution, minikit distribution and eradication of pests and diseases in endemic areas. An area of 27341 ha. was covered during 1988-89 at a cost of Rs. 16.80 lakhs for the eradication of Brown plant Hopper and Paddy Leaf Roller.

4.53 Under Coconut development 12.96 lakhs west coast tall and 0.78 lakh hybrid seedlings were distributed. Comprehensive Coconut Development Programme was another scheme implemented for coconut development which benefited nearly 25000 ha. Financial assistance was given for installation of 978 pumpsets and for development of 258 irrigation sources under the scheme. The coconut Board's programme for promotion of integrated farming in coconut small holdings was also continued during 1988-89 with an expenditure of Rs. 18.41 lakhs. Physical achievements under the programme during the year include removal of 16701 disease affected and uneconomic palms, construction of 115 irrigation wells, distribution of 243 pumpsets, promotion of multi species cropping in 1500 ha. and adoption of fertilizer use in 4000 ha.

4.54 The programme for the integrated development of spices implemented with 50% central assistance was continued during 1988-89. The total expenditure under the scheme during the year was Rs. 137.22 lakhs. Under this scheme, 19.99 lakh rooted pepper and 45802 clove seedlings and 2498 nutmeg seedlings were distributed, 14 model pepper gardens were established, 47498 minikits of fertilisers were distributed, 170 sprayers were supplied, and 2498 ha. of pepper plantations were rehabilitated.

4.55 During the festival season of Onam 1988, Department of Agriculture in close collaboration with the Department of Co-operation, Civil Supplies, Kerala State Co-operative Marketing Federation and other Co-operatives launched a massive action programme for production, procurement and distribution of vegetables in all the districts. A total quantity of 6188 tonnes of vegetables were procured and sold through the co-operatives and outlets of the Civil Supplies Corporation. This has helped the growers to secure remunerative prices and to contain the retail prices within reasonable limits during the festival season. Another programme for promotion of vegetables in homesteads was also organised during the year by distributing 1.24 lakh minikits of vegetable seeds and fertilisers at reasonable cost.

4.56 The casnew development programme continued during 1988-89 include intensive pest management in cashew covering 5276 ha., establishment of 250 new cashew demonstration plots and maintenance of the 5 budwood nurseries of improved clones.

4.57 Under the Small and Marginal Farmers Programme the Department of Agriculture distributed free of cost 30200 minikits of pulses seeds (4kg. each), 42313 kits of seamum seeds (1 kg. each), 46498 kits of coconut seedlings (5 seedlings each), 500 kits of maize seed (4 kg.) and 250 kits of sorglium (2 kg.). The number of Farmers benefited from the programme during the year is 119701. Under the land development component assistance @Rs. 2500 per ha. was provided to 7700 farmers benefiting 7199 ha.

4.58 National Biogas Development Project was also continued and 2423 plants were established during 1988-89 at a total cost of Rs. 85.12 lakhs.

4.59 Agricultural programmes were also organised as part of the Special Component Plan for scheduled castes and the tribal sub plan. Location specific schemes involving an outlay of Rs. 223.41 lakhs under S.C.P. and Rs. 79.80 lakhs under T.S.P. were taken up for economic uplift of these weaker sections. Wide range of inputs and various types of implements suitable to the local situations were supplied free of cost under the scheme. A total of 150105 S.C. families and 13579 S.T. families were benefited from the programme. Details of physical achievements under the scheme are given in Table 4.17.

4.17 The development support for the plantation sector is being provided by the Commodity Boards concerned. Major programmes implemented by the Spices Board include advisory service through the Zonal and regional offices, production and distribution of quality planting material for replanting of old, diseased and uneconomic cardamom plantations, certified nursery programme for cardamom, pepper and tree spices, promotion of poly bag nurseries, replanting of old and uneconomic plantation by providing financial assistance, financial support for creation of irrigation infrastructure like checkdams, farm ponds etc. in cardamom plantations, special subsidy assistance on P.P. equipment, chemicals and soil conservation to weaker sections, processing and marketing support for inferior grade cardamom etc.

Soil Survey

4.60 An area to the extent of 44,300 hectares was covered under the programme of 'Detailed Soil Survey'. This includes Karthikappally, Chittoor, Muvattupuzha, Vaikom, Palghat, Talappally and Tellichery taluks, covering 32,240 hectares and the catchment area of irrigation projects, Pampa and Vamanapuram in westerns ghat region to an extent of 21,300 hectares.

4.61 The Reconnaissance Soil Survey covered an area of 23,000 hectares. The survey was mostly concentrated in Meenachil taluk.

4.62 An intensive orientation programme on Soil Resource Mapping was conducted with the National Bureau of Soil Survey and Land Use Planning.

Soil Conservation

4.63 The achievement under soil and water conservation in arable lands was 143 hectares, showing a marginal improvement over the previous year. Achievement under soil conservation measures in selected watersheds availing institutional finance was 41.40 hectares, 31.66% less than the coverage in the previous year. Retaining walls and sluices were provided at different spots to protect a contiguous stream bank area of about 109 Km. in length. The performance under Special Component Plan and Tribal Sub Plan indicated a remarkable increase over the previous year. An area to the extent of 544 hectares of land belonging to Scheduled Caste and Scheduled Tribes were covered by appropriate measures of soil conservation against 392 hectares in the previous year. An area of 1416 hectares of land was brought under various conservation measures in the catchment of Kundah River Valley Project (Kerala portion) implemented as a 100% centrally sponsored scheme with 50% subsidy and 50% loan. The achievement during the previous year was 1020 hectares.

4.64 The Department of Agriculture (S.C. Unit) conducted a training course for Junior Soil Conservation Officers and Assistant Engineers on Watershed Planning and Management at Trivandrum with a view to introduce watershed Management system in the State.

4.65 A seminar on Strategic Soil and water Conservation for west coast plain and Ghat region (zone 12) was held at Trivandrum. Shri J. S. Bali, Adviser to the Planning Commission participated in the Seminar.

4.66 District-wise field studies were conducted under the technical guidance of the scientists from National Bureau of Soil Survey and Land Use Planning.

Land Use Planning

4.67 The work on land use survey of the State and preparation of optimum land use plan is in progress. Land Use maps for the Kuttanad region (Aerial photographs) were prepared at the instance of Kuttanad Water Balance Study Project has been completed. A pilot study to develop a methodology for forest resource evaluation for the State using remote sensing data in collaboration with the Kerala Forest Research Institute was initiated and is in progress. Structural Maps were provided to K.S.E.B, a user agency for the conduct of a seismic study of Edamalayar project. The Land Use Board published "Land Resources And Land Use in Kerala" a volume containing data on land, its resources and utilization.

Agricultural Marketing

4.68 In agricultural marketing, the State could not make much headway for want of organised efforts to build the required infrastructure. The Government policy on development of agricultural marketing was largely entered around the promotion of a net work of co-operatives for procurement, storage and marketing of selected farm produce.

4.69 The major institutional agencies engaged in the marketing of agricultural produce are the Kerala State Co-operative Marketing Federation, Kerala State Rubber Marketing Federation, Central Arecanut and Cocoa Marketing and processing Co-operative, Kerala State Coconut Development Corporation, Cashew Apex Industrial Co-operative Society and the Kerala Kera Karshaka Sahakarana Federation. The market operations of these agencies in general were at a low key during 1988-89 due to weak financial base and for want of adequate facilities. One more institution namely Kerala State Horticultural Products Development Corporation has been set up during 1989.

4.70 The Kerala State Co-operative Marketing Federation is operating through the primary marketing societies and selected primary agricultural credit societies. The Federation could improve its performance under copra (5922 tonnes) trade during 1988-89 despite serious financial difficulties. Other commodities handled by the Federation during the year include 411.5 tonne of pepper worth Rs. 162.87 lakhs, 2.31 tonnes of cardamom, worth Rs. 4.13 lakhs, 20 tonnes of honey worth Rs. 4 lakhs, 1.07 tonnes cloves worth Rs. 1.57 lakhs etc. The overall performance of the Federation during the year is not very satisfactory.

4.71 The Kerala State Co-operative Rubber Marketing Federation is the apex institution with 33 primary rubber marketing societies under its fold. The Federation procured 30337 tonnes of rubber worth Rs. 53.16 crores during 1988-89 against the procurement of 25927 tonnes in 1987-88. Sales of rubber during 1988-89 was 29468 tonnes. In fertilizer business also the performance of the Federation is commendable with a sale of 27363 tonnes. The Federation could organise aerial spraying for rubber in 51450 acres.

4.72 The Central Arecanut and Cocoa Marketing and Processing Co-operative Ltd. (CAMPCO), a joint venture of the Kerala and Karnataka Governments, handled 1,28,693 qtls. of arecanut, 5540 qtls. of cocoa during the period from April to November 1989. In the cocoa processing unit operating under the Federation 1450 qtls of cocoa products were also manufactured.

4.73. The Kerala State Warehousing Corporation has acquired an additional storage capacity of 3450 MTS during the year making its total own capacity to 113781 MTS. In addition the corporation has also retained hired godowns with a capacity of 40997 MTS. The total storage capacity available with the corporation during 1988-89 work out to 154778 MTS. The Corporation, apart from its basic responsibility of providing scientific storage facilities to agricultural and other commodities has diversified its activities into many allied fields of warehousing. They include procurement of copra on behalf of NAFED in selected centres, purchase of pepper on behalf of spices Trading Corporation Government of India, procurement of rubber on behalf of Rubber Marketing Federation under the price support scheme etc. The Corporation has handled a total custom of 349667 MTS with 76.38 per cent capacity utilisation.

Grading and Quality Control

4.74 Under the 'Agmark' grading scheme operated by the Marketing wing of the Department of Agriculture 27840 qtls of coconut oil, 40 qtls. of gingelly oil 615 qtls. of honey and 511 qtls. of ground spices were graded during 1988-89. (See table 4.18)

Regulated Markets

4.75 Regulated markets are functioning only in the Malabar region of Kerala under the Malabar Market Committee which was constituted in 1950 by the Government of Madras. The act in force is the old Madras Commercial Crops Market Act of 1933. The commodities notified are arecanut and coconut and their products. Four market yards are under this committee viz. Changaramkulam and Vattomkulam in Malappuram District, Perambra in Kozhikode District and Kanjhangad in Cannanore District. The District Collector Calicut is in charge of functions of the Committee from 1959 onwards.

Livestock:

Trend in Cattle Population

4.76 The trend in cattle population has been arrived on the basis of livestock census data. The latest census was conducted during the year 1987.

TABLE 4.19

Year	Cattle	Breedable		Buffa- loes	Goats	Pigs	Fowls
		Cross bred	Female Male				
1982	30.97	9.13	2.17	4.09	20.04	1.27	145.19
1987	34.24	11.57	1.99	3.29	15.81	1.37	170.92

Source: Cattle Census 1982 and 1987.
Department of Animal Husbandry

4.77 It is observed that there has been a progressive increase in the number of breedable cross-bred females over the period of 5 years from 1982 to 1987. This represents an increase of 26.72%. The most notable increase was registered in the age group of cross-bred female cattle of 1 to 2½ years of age from 1.86 lakhs in 1982 to 2.68 lakhs in 1987, showing an increase of 44%. Meanwhile the male cattle population above 1 year has decreased by 8.3% over the period. It is also evident from the above data that there was a steep decline in the number of buffaloes and goats despite the developmental efforts undertaken. The contribution of buffalo to the agrarian economy is quite substantial. Also, the role of goat for supplementing the income of the vulnerable sections of people is enormous. In this context, it is worthwhile to draw attention to this problem at this stage and introduce measures that could be taken to remedy the situation.

4.78 Kerala Livestock Development Board, an agency responsible for the supply of inputs for the cattle breeding activities in the State, produced 19.77 lakh doses of frozen semen (cattle and buffalo) against 15.37 lakh doses in the previous year, and distributed 13.67 lakh doses in the State, compared to 13.79 lakh doses in the previous year. It has again supplied 6 lakh doses of frozen semen to the neighbouring States as well. Under the progeny testing programme, the Board could assess the genetic potentials of 53 bulls with fair degree of accuracy.

4.79 The total number of artificial inseminations carried out through different state agencies were only 13.49 lakhs compared to 13.93 lakhs in the previous year. The shortfall was due to inadequacy in the number of artificial insemination centres. However, by bringing out an overall development in the genetic quality of the indigenous stock, their upkeep and maintenance in sound health etc., the milk production target for the period under review was fully achieved.

Health cover

4.80 Greater attention was given for providing an effective health cover for the livestock in the State mainly through activities of the department of animal husbandry. This was achieved through a net work of veterinary institutions strengthened at different levels to provide veterinary aid. These institutions comprise veterinary poly clinics (51), Veterinary Hospitals (105), mobile veterinary hospitals (12), Mobile Farm Aid Units (18), Sub Centres (92) and District Veterinary Centres (7) District level institutions under the A. H. Department as on 31-12-1989 is attached.

4.81 Veterinary Clinical aid was provided through Clinical Laboratories attached to the Veterinary Poly Clinics 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 other diagnostic laboratories in the study and investigation of the incidence of contagious and emerging diseases. Preventive veterinary medicines for most contagious diseases is supplied by the Institute of Animal Health and Veterinary Biologicals, Palode, which meets the State's requirement of cell culture, rinder pest vaccine, poultry and duck disease vaccine and other common bacterial vaccines.

4.82 Rinder pest eradication was taken up as a massive programme covering the entire State. Due to timely vaccination campaign, only stray cases of infection have been recorded during the period under review. A time-bound 'operation Rinder Pest Zero' for a total eradication of the disease from Kerala is on the anvil.

4.83 A total of 5.2 lakhs cross-bred calves were subjected to deworming against the common helminths prevalent in the State. The total number of cases treated during the period under review was 41.46 lakhs. This is in addition to the 1.56 lakhs cases handled by the Kerala Co-operative Milk Marketing Federation (KCMMF) through their regular veterinary centres.

Under mass vaccination programme, the department of animal husbandry had arranged to vaccinate 16.69 livestock and 32.42 lakhs fowls during the period under review. The Institute of Animal Health and Veterinary biologicals, Palode produced 98.92 lakh doses of vaccine for avian and cattle disease against 92.91 lakh doses in the previous year.

4.84 Veterinary Public Health has not been well established in the State. Regular meat and milk inspection on scientific lines is practically non-existent. The urgency for building up an efficient veterinary public health in the State cannot be over emphasised as rural masses have their activities closely linked with the livestock.

Livestock Products

TABLE 4.20

Particulars	1986-87	1987-88	1988-89
1. Milk (in lakh tonnes)	13.33	14.26	15.07*
2. Eggs (in million)	1397	1440	1480*
3. Meat (in tonnes)	26829	28197	29462*

* Provisional.

Source: Department of Animal Husbandry.

4.85 The estimated milk production in the State was 15.07 lakh tonnes (provisional) against 14.26 lakh tonnes in the previous year. This represented an increase of 5.68%.

Poultry

4.86 Production of eggs increased from 1440 million numbers to 1480 million (provisional) showing an increase of 2.63% over the previous year. Though the production has been on the increase, it was not commensurate with the demand within the State. The main sources of production are backyard units. This requires regular and systematic replacement of quality parent materials.

4.87 Broiler production is fast developing in the State. Total broiler production during the period under review was 80 lakh birds which is equivalent to 8000 MT meat. Cobs, Poona Birds, and Hubs were the three different improved broilers reared in the State for meat production.

4.88 The departmental livestock farms produced 4.4 lakh layer chicks, 5.8 lakh broiler chicks, 0.25 lakh duck-lings and 0.75 lakh quail chicks and distributed them among farmers.

Meat

4.89 The recorded production of meat in the State during the period under review was 29462 MT which was 4.48% more than the previous year's production of 28197 MT. Meat Products of India Ltd., Koothattukulam had produced 199.750 MT meat and meat products as against the previous year's production of 165.23 MT. The company could reduce the loss to Rs. 23.83 lakhs from Rs. 26.56 lakhs in the previous year.

Dairy Extension

4.90 Livestock Management Training Centres under the Department of Animal Husbandry and Training Centres run by the Department of Dairy Development and KLD Board, continued to provide inservice training to para veterinary personnel, extension training to farmers, inservice training to Cattle improvement Assistants, etc. The Training Centre at Mattupatti, run by the Kerala Livestock Development Board (KLD Board) offered specialised training courses connected with the cattle breeding and allied subjects. The Board, in its organised course of training programme, trained 165 personnel mostly from outside the State, including those from Bhutan. The Department of Animal Husbandry and Dairy Development imparted training to 1074 farmers, 1374 Scheduled Caste and Scheduled Tribe farmers, 23 women, 93 unemployed youth and 143 pre-service candidates as Livestock Inspectors. As regards weaker sections, the Department of Dairy Development assisted 1169 families to construct model cattle sheds. The personnel from department of dairy development visited 58772 houses, organized 4952 seminar involving the participation of 58,090 dairy farmers, 115 cattle shows by making assemble 6702 cattle, 125 film shows, and provided 300 MT Mineral mixture, 600 litres Trivax, and purgatives to 40,000 calves.

Fodder Development

4.91 The Kerala Livestock Development Board produced 15.13 MT seeds of exotic varieties of fodder and legume through registered seed growers in the State and distributed the entire quantity of the seed. The Department of Dairy Development raised nurseries in 1757 hectares of land and conducted 320 demonstrations in cultivator's field to demonstrate the cultivation aspects of exotic fodder, its nutritive value and other added advantages of raising fodder for higher milk production. The sewage farm, Valiyathura continued its activities of fodder production to cater to the needs of the dairy farmers of Trivandrum city. An area of 86 acres of land was brought under fodder cultivation and 3032 MT fodder was procured. Sewage Farm, Kottayam brought 2 acres of land under fodder and about 35 tonnes of fodder was procured. KCMMF undertook fodder production enhancement programmes through dairy co-operative societies. The Federation runs two cattle feed factories in the State at Thuravoor and Malampuzha. These factories produced 33840 MT of feed of good quality and distributed 34,173 MT of feed including the carry over stock. The Meat products of India, Koothattukulam had produced 485 MT quality feed for pigs, rabbits, poultry etc.

Milk Marketing

Milk Chilling Plants

4.92 The construction works of the chilling plant Meenangadi was completed and erection of machineries was started. Steps to acquire additional land was also initiated. The construction works of

the chilling plant Marangattupally is nearing completion. Land acquisition steps were completed for Kattappana and Ernakulam dairy plants. Steps were also taken for acquisition of additional land for Ernakulam Dairy. These two dairy plants were established under operation Flood II Programmes.

Traditional Milk Co-operative Societies

4.93 The dairy development department registered 159 traditional societies under Co-operative sector arriving a cumulative total of 1849 societies during the year under review.

Anand Pattern Co-operative Societies

4.94 The Kerala Co-operative Milk Marketing Federation Ltd. registered 1067 'Anand Pattern Co-operatives' till the end of the period under review. Out of this 963 were functional. The number of village level member societies had gone up from 471 during 1985 to 1067 in 1989. There was a steep rise in membership from 84,858 in 1985 to 2,08,893 in 1989. This includes 10% women and 6.6% SC/ST members. The average daily milk procurement of the Federation increased to 2,36,517 litres from 2,11,463 litres in the previous year, showing an increase of about 11.84%. The average milk marketed per dairy was also increased to 16% more than that of the previous year. Steps were taken to establish a 3.60 crores milk powder plant, sponsored by NDDB. Details of the input programme of the Federation for the period under review is given in APPENDIX 4.10

Fisheries

4.95. In Kerala, fishing is the mainstay of about 3.6% of the State's population. More than 9.29 lakh fishermen comprising 7.20 lakhs (77.50%) in marine and 2.09 lakhs (22.50%) in inland sector are engaged in fishing. Compared to the previous year, the fishermen population has increased by 17,307 (1.89%) District-wise distribution of Fishermen population in Kerala in 1988-89 is furnished in Appendix 4.13

4.96. Kerala has a long coast line of 590 Kms. which measures about 10% of the coast line in the country. The fishable area in Kerala consists of the continental shelf within 200m. depth range, spread over 39 lakh hectares and the inland water areas suitable for promotion of culture fisheries spread over 3.61 lakh hectares. The total fish production in Kerala during 1988-89 is estimated to be 3.87 lakh tonnes, including 0.289 lakh tonnes of inland fishes. The contribution of marine sector was 3.59 lakh tonnes. The production which was 3.054 lakh tonnes during 1987-88 has increased by 26.72% during the year. The increase in production was mainly in the marine sector which was at a very low level during 1987-88 (2.78 lakh tonnes). The inland fisheries also recorded marginal increase in production from 26,493 tonnes to 28,475 tonnes (5.73%). The major varieties of pelagic fishes landed along the coast of Kerala include oil sardine, other sardines, mackerel, anchoviella etc.

The demersal fishes consists of penaeid prawns, elasmobranchs, perches, pomfrets etc. From the data on species-wise landings, it is seen that oil sardine accounts for the major share 1.398 lakh tonnes (38.97%) followed by prawn 8.97%, other sardines 6.92% and mackerel 6.72%. Against the estimated catch of 18,329 tonnes of mackerel in 1987, the catch in 1988 was 24106 tonnes registering an increase of 31.5%. Among the demersal fishes, prawns constituted the major share, representing 8.97% of the total catch during 1988. The species-wise marine landings in 1988-89 is given in Appendix-4.14 The share of inland sector to total fish production in the State is 7.36%. Species-wise, Inland fish production in Kerala from 1986 to 1989 is furnished in Appendix-4.15

4.97. Export of marine products from Kerala increased to 45614 tonnes valued at Rs. 221.31 crores in 1988-89 as against 35576 tonnes in 1987-88 valued at Rs. 183.94 crores. Kerala accounted for 37.02% of the total export of marine products from the country in terms of value and 45.71% in terms of quantity. The export details of marine products from Kerala/India from 1980-81 to 1988-89 is furnished in Appendix-4.16

4.98. Data on the average beach price of selected marine fishes in Kerala during the last 3 years are given in Appendix-4.17 The overall trend reveals that the prices of all the fishes were on the increase.

4.99. The achievements under the inland fisheries sector during 1988-89 include, production of 50.41 lakhs of fingerlings in the departmental fish seed farms at Malampuzha, Polachira, Pannivelichira and Parappanangadi and the seed farms under the FFDAS at Trichur and Meenkara. During the year, 78.73 lakhs of *P. indicus*, 0.98 lakhs of *P. Monodon* and 5783 number of macrobrachium prawn seeds were produced at the shrimp hatchery at Azhikode. Under the FFDA schemes, 440 farmers were registered, 267 farmers were trained and 12 reservoirs covering an area of 9953 hectares have been stocked with about 44.46 lakhs of fry/fingerlings during the year. Patrolling in backwaters to prohibit illicit fishing and marine patrolling to ensure marine regulations envisaged under the Kerala Marine Fisheries Regulations Act were continued during the year under review.

4.100. The implementation of Special Component and Tribal Sub Plan Schemes also made commendable progress during 1988-89. More than 4977 scheduled caste and 1216 scheduled tribe families were benefited under these programmes during the year.

4.101.- A major project for the development of prawn farming in brackish water areas was taken up during 1989-90 with the financial assistance from the Kuwaiti Fund for Arab Economic Development. The programmes proposed under the project include establishment of prawn farms in 7500 hectares, establishment of prawn hatcheries, feed mills, and supporting facilities like processing, marketing etc. The total cost of the project is Rs. 7493.83 lakhs of which the share from Kuwaiti Fund will be Rs. 3522.40 lakhs. The total project period is 10 years.

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

4.102. Matsyafed, the apex Federation of the 81 Fisheries Development Welfare Co-operative Societies has been engaged in promoting production, procurement, processing and marketing of fish and fish products. Integrated projects for Fisheries development including the motorisation of country crafts were taken up by the Federation. Outboard engines were supplied to fishermen at subsidised rate for motorising the country crafts. The NCDC assisted integrated fisheries development project is under implementation in 47 fishing villages. Under phase I of this project 291 outboard engines, 191 country crafts, 3254 Kgs. of nylon twine etc. were supplied to the fishermen in 15 villages till the end of 1987-88. Upto December 1989, 587 groups comprising 3500 fishermen were benefited. The financial achievements under phase I & II upto December 1989 are Rs. 392.35 lakhs and Rs. 323.72 lakhs respectively. A number of housing programmes for fishermen are also under implementation by Matsyafed. Under subsidised housing scheme, a total of 24,600 houses were completed and 1452 houses were rehabilitated till the end of 1988-89. In addition to this, 600 houses are under construction in the fishermen villages with financial assistance from National Fishermen Welfare Fund. As a supporting facility for fish marketing by fisher women vendors, Matsyafed has been operating 6 Vanitha Special Bus Services. Nearly 300 women vendors are benefited per day. Details of physical and financial achievements under the Integrated Fisheries Development Projects phase I & II are given in Appendix-4.18

Fishermen Welfare Fund Board

4.103. The Fishermen Welfare Fund board has been implementing various welfare programmes for fishermen & their families. Group Insurance Scheme, insurance for fishermen houses & fishing implements old age pension, financial assistance for marriage of daughter of fishermen etc. are the programmes under implementation. During the financial year 1988-89 assistance was provided to 4040 fishermen under various schemes and a sum of Rs. 105.65 lakhs was expended. The details of financial achievements since the inception of the Board is given in Appendix-4.20

Harbour Engineering

4.104. The main functions of the Harbour Engineering Department include investigation, preparation of project reports, design and execution of fishing harbours, and fish landing centres and their maintenance. The services of the Department is available to Fisheries and Ports Department of the Government of Kerala. Civil works pertaining to Matsyafed Schemes are also undertaken by the Department. The activities of the Department during the year under review include a project for prawn hatchery at Mopla Bay. Construction of two nursery ponds at Palaikari, and fish farms at Njarakal and Malippuram all intended for Matsyafed. A pilot project for generating electricity from waves at Vizhinjam was also taken up during the period. Out of 5 fishing harbours and 16 fish landing centres so far taken up one fishing harbour and 6 landing centres were completed. Item wise details of work executed by the Harbour Engineering Department are furnished in Appendix-4.21

Central Institute of Fisheries Technology

4.105. The Central Institute of Fisheries Technology is concerned with detailed research and investigations on all disciplines of fishing and fish processing. Training programmes covering various aspects of fish drying, hygienic handling of squid and cuttle fish, seafood quality control, net mending and weaving and in-plant training in refrigeration, and air conditioning are also being organised by the Institute.

Forestry and Wildlife

A. General Forestry

4.106 The area under forest in Kerala increased marginally during 1988-89, over the previous year from 1,122,520 ha. to 1,122,685.33ha. (0.02%). This includes reserve forests (81.49 per cent) vested forests (16.85%) and area proposed for reserve forests (0.26%). The area under forest accounts for around 24 per cent of the total geographical area of the State. Division-wise details of forest area are given in Appendix 4.22

4.107 The area under forest plantations marked a decrease from 155,337.1 ha. in 1987-88 to 154,101.3 ha. in 1988-89 (0.79%). Among the species covered under man made forests teak, eucalyptus and softwood constitute the major items accounting for about 51.13%, 20.83% and 3.83 per cent respectively. The species-wise details of forest plantations are given in Appendix 4.23.

4.108 Kerala forests are considered to be a repository of a variety of very valuable forest resources. They include timber (Round log, Round poles and swan and sward), firewood, charcoal, bamboo, junglewood poles, reeds, honey and sandalwood. Item-wise details are given in Appendix 4.24. The total ban on tree felling imposed by Government continued during 1989 also.

4.109 The net revenue earnings from forestry sector amounted to Rs. 3374.43 lakhs during 1988-89 as against Rs. 3,999.73 lakhs during 1987-88 which marked a decrease of Rs. (-)625.30 lakhs (15.63%). The revenue earnings from forestry sector include sale proceeds of forest produce and other receipts like interest on forest revenue. The details are furnished in appendix 4.25

B. Social Forestry

4.110 Under the World Bank aided Kerala Social Forestry Project, 155.50 lakh seedlings were produced during 1988-89. The achievements under other components of the project during the year include raising of large block plantations in 2,870.61 ha. of government lands and small block plantations in about 580.42 ha. of such lands. Strip plantations were also raised in 124.60 ha. against the target of 500 ha. set for tribal fuelwood plantations. In the case of tribal medicinal plantations the achievement is 90 ha. which has far exceeded the target of 25 ha. Details of item-wise physical achievements under the project are given in Appendix 4.27. In addition to raising of plantation and distribution of seedlings, civil works

such as construction of 82 office buildings were also undertaken as part of the project and 132 staff quarters. 217 vehicles of different types were also purchased during 1988-89. Under the Rural Fuelwood Scheme the expenditure was only Rs 48.67 lakhs against the provision of Rs. 60.00 lakhs.

C. Wildlife Development

4.111 The two National Parks and 12 Wildlife Sanctuaries in the State cover an area of 2249.72 Sq.kms. which forms about 24 per cent of the total forest area (5.78 percent of the geographical area). The development activities undertaken in the Wildlife sanctuaries include survey, demarcation and consolidation of boundaries, improvement of habitats and communication systems, construction of buildings for office, quarters, roads, fire protection works, etc. During 1988-89 fire protection activities were organised covering 1,192 KMS, communication system could be established in 25 Boundary Survey Centres, boundary survey works completed over a distance of 45 KMs, 457 Nos. of Permanent Cairns erected, construction of roads and trek paths completed in over 126.8Kms, 8 watch towers established and power fences were formed over a distance of 30 Kms. Construction of buildings/quarters/sheds (156 Nos.) and afforestation works in 17 ha. of forest land were the other major activities taken up in the Wildlife Division of the Forest Department. The details are given in Appendix 4.29

4.112 The total expenditure for various development activities in the Wildlife Wing during the year 1988-89 amounted to Rs. 109.88 lakhs.

4.113 The Kerala Forest Development Corporation with an authorised share capital of Rs. 10.00 crores, was set up (in 1975) to raise new Pulpwood plantations and for taking over 15,400 ha. of plantations raised by the Forest Department and managing them. The Projects so far taken up by the KFDC include Pulpwood Project, Grass land Project, Softwood (Matchwood) Project and four Cardamom Projects viz, Pachakkanam, Mankulam, Nelliampathy & Kanni Elam Project.

Kerala Forest Research Institute

4.114 The Forest Research Institute established in 1975 carries out advanced studies and research in forestry and related subjects. Research Programmes of the Institute aims at developing technology for increasing the productivity of plantations, proper management of natural forests and efficient utilisation of the available, timber. During the year 1988-89, the Institute completed five projects and there are 53 ongoing projects. The project completed include the study of afforestation techniques in grasslands of Kerala, movement pattern of asiatic elephants in Parambikulam Wildlife Sanctuary, foliar analysis in Eucalyptus to assess soil test methods for nitrogen, phosphorus and potassium, ecology and behaviour of Malabar giant squirrel and habitat utilisation by large mammals in teak plantations and natural forests. During the year under report, six new projects are also initiated.

4.115 The Institute renders expert service to the Forest Department to tackle disease problems, soil studies etc. consultancy services are also provided to wood using industries on preservative treatment and utilisation of rubber wood etc. A Bamboe Information Centre has been established at KFRI with the support of IDRC, Canada. The Institute is carrying out developmental programmes by availing assistance from State Government, Government of India and other National and Inter-National Organisations. Since its inception, the Institute has received a total amount of Rs. 687.30 lakhs from different agencies and the details of which are given in Table 4.22

Agricultural Research

4.116 Kerala Agricultural University, Central Plantation Crops Research Institute, Central Tuber-Crops Research Institute and National Research Centre for Spices are the important agencies engaged in agricultural research in the State. The University undertakes fundamental, applied, and adaptive research to develop efficient technologies for the establishment of economic agro-livestock-fisheries farming systems of Kerala. The university has five regional agricultural research stations with specific lead functions in different agro-climatic zones to conduct location specific, production-oriented research under the National Agricultural Research Project. In addition, two centres in the Faculty of Agriculture and three in the Faculty of Veterinary and Animal Sciences are engaged in advance studies. There are twenty-three research stations attached to the regional agricultural research stations. All India Co-ordinated Research Project Centre on Agricultural Drainage at Karumadi in Alleppey District conducts studies on drainage under actual farming situations. Three Krishi Vinjan Kendras functioning under the University impart short training courses for farmers, farm youths and farm women to develop skills in agricultural practices. The activities in the Tribal Area Research Centre at Amboori in Trivandrum District, financed by ICAR are aimed at enhancing the net income of the 'Kanikkar' tribal families. The University is currently implementing 33 externally aided projects. The important research highlights of the University are given below.

4.117 Four advanced cultures of rice namely Pattambi, Red Triveni, Culture 1727 and BR-51-315-4 and Moncompu 153-1 were recommended for release. In sugarcane one selection (COIL-88322), in Bhindi one selection AEI and in pepper, two selections Cul-141 and Cul-331 were also recommended for release. In cashew seven hybrids were identified as promising with regard to yield, nut size, shelling percentage and kernel grade. In pumpkin selection CM-14 was identified for national release in the Ninth Workshop of All India Co-ordinated Vegetable Improvement Project. A new culture of *Amaranthus* (culture-8) was recommended for large scale cultivation in Trivandrum-Quilon districts.

4.118 Studies on paddy crop management in Kari lands proved the effectiveness of tile drainage system by giving an increased yield of 60 per cent. The programme has established the rechemical feasibility and financial viability of the system.

4.119 Fish culture in rice fields after the kharif crop of rice in Kuttanad was found more profitable than a second crop of rice. In a cropping system trial at Rice Research station, Vyttila it was found that selecting stocking of prawn after rice gives better return than the traditional prawn filtration.

4.120 A suitable strain of poultry adopted to the agroclimatic conditions of Kerala has been evolved. It was also found that the cross of Australap male and White Leghorn female is superior in egg production under low and medium technology farming situations.

Central Plantation Crops Research Institute

4.121 The CPCRI conducts and coordinate research on coconut, oil palm, arecanut, coconut and also on small holder plantation crops based farming systems.

Central Tuber Crops Research Institute

4.122 Two sweet potato hybrids namely X 108-2 and X 108-1 recorded significantly higher yield (18.5 and 17.5 tonnes/ha. respectively).

4.123 Two high yielding cloves of *dioscorea* De 53 and De 55 were identified in multi-location trials.

4.124 A high yielding colacassa-line C. 189 was identified.

National Research Centre for Spices

4.125 The institute is conducting research on spices covering pepper, ginger, turmeric, clove, nutmeg, cinnamon and all spices. The 29 research projects on those crops are arranged under ten mega projects which are multi-disciplinary in nature. Some of the major achievements during 1988 include establishing the role of *Phytophthora Capsici* in the cessation of slow decline of black pepper, enrichment of germ plasm of spice crops, identifying karimunda selections for pepper etc.

Agricultural Education

4.126 The 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, Thavanur, College of Fisheries, Panangod and College of Rural Home Science, Vellayani. Data regarding admissions and successful completions of students under the various courses during 1987-88 and 1988-89 are given in Appendix. 4.30

Kerala Kera Karshaka Sahakarana Federation KERAFED

4.127 KERAFED established in 1987 for the purpose of implementing the Integrated Coconut Development Project with assistance from European

Economic Community initiated a number of activities in the areas of production and marketing. Field level units (6 each) for the Southern and Northern Regions have been set up. Till the end of 1989 a total number of 571 primary agricultural credit societies have been enrolled in these regions for organising production and procurement operations. The civil works in connection with the establishment of the Southern Regional Processing Complex for Copra are in progress at Karunagappally. The site for the northern complex has been identified. Share capital assistance to the tune of Rs. 585.25 lakhs were provided to 445 PACS during this period. In the production front, 957 coconut demonstrations were laid out, 461 seminars were organised and 51285 coconut seedlings were distributed. The KERAFED is the authorised agency for procurement of Copra on behalf of the NAFED under the price support scheme and accordingly 3900 tonnes of Copra was procured during 1989.

Kerala Land Development Corporation

4.128 The financial assistance to the Projects implemented by the Corporation has not been restored by NABARD/State Bank of India during the year 1989. The implementation of the two major projects, namely Kuttanad Development and Kole Land Development were therefore in a stand still during the period also.

Oil Palm India Ltd.

4.129 Oil Palm India is implementing three schemes for planting 4160 ha. under oil palm with an investment of Rs. 22.65 crores. The area covered by the corporation till the end of 1989 is 3705 ha. Action is also in progress for setting up two modern processing mills as envisaged in the project.

The Plantation Corporation of Kerala Ltd.

4.130 The Corporation is the largest public sector undertaking in the plantation sector of Kerala. Eight rubber estates and four cashew estates with a total extent of 14329 ha. are owned by the Corporation. The latex produced by the Corporation is processed into various forms namely Centrifugal latex, Crumb rubber Crepe etc. in the factories of the Corporation, at Kodumon, Kalady and Perambra. As part of its expansion programme the Company has promoted a pilot project for the processing of rubber wood in Kodumon Estate. The production of rubber for the year 1988-89 was 6615.35 MTs with a sales receipt of Rs. 1471.72 lakhs. This is in addition to Rs. 136.24 lakhs earned from sale of cashew.

The State Farming Corporation of Kerala Ltd.

4.131 The Corporation incorporated in 1972 for cultivation of Sugarcane was permitted to take up rubber plantations in the lands allotted. Accordingly the Corporation has established 1927 ha. of rubber and 296 ha. of Cashew plantations, availing assistance from Rubber Board, State Government and NABARD.

Kerala Agro Industries Corporation

4.132 The major objective of the Corporation is to promote mechanisation of agricultural sector and the major activity of the Corporation is sale, hiring and servicing of agricultural implements and machinery

During 1988-89 the Corporation has sold 41 tractors, 234 power tillers and 528 pumpsets in addition to hiring of 3 bull dosers. The total value of items manufactured by the Corporation during the year works out to Rs. 47 lakhs. The training centre at Malampuzha attached to the Corporation imparted training to 124 persons on tractor driving. The Fruit Processing Unit of the Corporation at Punalur produced 545 tonnes of fruit products during the period.

Kerala Agro Machinery Corporation

4.133 The Corporation was able to put up remarkable performance in the manufacture of "KAMCO" power tillers during the last two years. Production during 1988-89 was 2852 tillers representing a capacity utilisation of 84 per cent.

Kerala State Horticultural Products Development Corporation

4.134 The Kerala State Horticultural Products Development Corporation was established by the Government in 1989 with a view to promote production, processing and marketing of horticultural products on commercial lines.

TABLE 4.1

Season-wise percentage Departure of Rainfall in Kerala from Normal (During 1981 to 1989)

Sl.No.	Year	Percentage of Rainfall (%)		
		Summer	South West Monsoon	North East Monsoon
(1)	(2)	(3)	(4)	(5)
1	1981	-28	17	-16
2	1982	-44	-16	-43
3	1983	-73	+2	-33
4	1984	-12	-13	-30
5	1985	-8	-17	-26
6	1986	-51	-21	-20
7	1987	-55	-31	+30
8	1988	-15	-1	-64
9	1989	-30	-9	-18

TABLE 4.2

Average Monthly Rainfall in Kerala (1987-89)

in (M.M.)

Month	Average Monthly Rainfall				
	Normal	1987	1988	1989	Average for 3 years
(1)	(2)	(3)	(4)	(5)	(6)
January	15	1	1	6	3
February	17	2	19	0	-7
March	38	6	49	19	25
April	110	52	144	107	101
May	258	119	142	153	138
June	691	608	585	725	639
July	760	253	608	577	479
August	433	441	427	354	407
September	247	180	498	294	324
October	291	332	76	313	240
November	163	212	79	87	126
December	42	112	25	7	48
	3065	2318	2658	2642	2537

TABLE 4.3
Land Use Pattern in Kerala

Classification of land	(Area in ha.)							
	1985-86	1986-87		1987-88		Change in area between 1986-87 and 1987-88	Percentage	
		Actual	Percent	Actual	Percent			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1. Total Geographical Area	3885497	3885497	100	3885497	100	..	..
2. Forest	1081509	1081509	27.88	1081509	27.88	..	..
3. Land put to non Agricultural uses	278601	263017	6.77	284802	7.33	+21785	(+)8.28	
4. Barren and Uncultivable land	88107	82343	2.12	72491	1.87	-9852	(-)11.96	
5. Permanent Pastures and grazing land	4223	3711	0.10	3089	0.08	-622	(-)16.76	
6. Land under Misc'tree crops not included in net area	50228	46614	1.20	40606	1.04	-6008	(-)12.89	
7. Cultivable waste	125559	129582	3.34	115342	2.97	-14240	(-)10.99	
8. Fallow other than current fallow	28038	27727	0.71	28779	0.74	+1052	(+)3.79	
9. Current fallow	43247	44258	1.14	47605	1.23	+3347	(+)7.56	
10. Net area sown	2190985	2206736	56.79	2211274	56.91	+4538	(+)0.21	
11. Area sown more than once	675567	663578	17.08	688581	17.73	+25003	(+)3.77	
12. Total cropped area	2866552	2870314	73.84	2899855	74.64	+29541	(+)1.03	
13. Cropping Intensity	..	..	130	..	131	..	..

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			
	1987-88	1988-89	Changes over the previous year	Percentage	1987-88	1988-89	Changes over the previous year	Percentage	1987-88	1988-89	Changes over the previous year	Percentage
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Rice	604082	577557	(-)26525	(-) 4.39	1032605	1002328	(-)30277	(-)2.93	1709	1735	26	1.52
2. Jowar	2559	1516	(-)1043	(-)40.76	1295	789	(-)506	(-)39.07	506	520	14	2.76
3. Ragi	1552	892	(-)660	(-)42.53	1281	930	(-)351	(-)27.40	825	1043	218	26.42
4. Other Small millets	4133	2867	(-)1266	(-)30.63	3185	2303	(-)882	(-)27.69	770	803	33	4.28
5. Pulses & Tur	25741	26881	1170	4.55	18639	19705	1066	5.72	725	733	8	1.10
6. Sugarcane	8228	8476	248	3.01	53807	56149	2342	4.35	6539	6624	85	1.30
7. Pepper	146081	164558	18477	12.65	46819	42513	(-)4306	(-)9.20	320	258	(-)62	(-)19.37
8. Ginger	14444	16115	1671	11.57	45511	45845	334	0.73	3151	2845	(-)306	(-)9.71
9. Turmeric	3047	3161	114	3.74	5841	6174	333	5.70	1917	1953	36	1.88
10. Cardamom	64627	59377	(-)5250	(-)8.12	2050	2108	58	2.82	32	36	4	12.50
11. Betelnuts	60535	62940	2405	3.97	10665*	10891*	226	2.12	176300**	173000**	(-)3	(-)1.70
12. Banana	18939	18848	(-)91	(-)0.48	249933	248335	(-)1598	(-)0.64	13197	13175	(-)22	(-)0.17
13. Other Plantain	37970	38284	314	0.83	172576	169988	(-)2588	(-)1.50	4545	4440	(-)105	2.31
14. Cashewnuts	121550	119604	(-)1946	(-)1.60	81481	98878	17397	21.35	670	827	157	23.43
15. Tapioca	172908	158751	(-)14157	(-)8.18	3236352	2801958	(-)434394	(-)13.42	18717	17650	(-)1067	(-)5.70
16. Sweet Potato	3399	3372	(-)27	(-)0.79	28213	28444	231	0.82	8300	8435	135	1.63
17. Groundnut	14749	10662	(-)4087	(-)27.71	13907	4749	(-)9158	(-)65.8	943	445	(-)498	(-)52.81
18. Sesamum	12326	13195	869	7.05	3962	2978	(-)984	(-)24.83	321	226	(-)95	(-)29.59
19. Coconut	775365	866467	91102	11.75	3346*	3841*	495	14.79	4315**	4433**	118	2.73
20. Cotton	4923	4834	(-)89	(-)1.81	1350	1338	(-)12	(-)0.88	274	277	3	1.09
21. Cocoa	14003	N.A.	..	..	5857	N.A.	..	..	418	N.A.	..	..
22. Tea***	34642	34642	..	..	56276	65771	9495	+16.87	1625	1899	274	16.87
23. Coffee***	65637	65637	..	..	22925	47425	24500	106.87	349	722	373	106.87
24. Rubber***	358957	N.A.	..	..	216562	238400	22838	9.58	603	N.A.	..	..

* Million nuts.

** Nuts per hectare.

*** Provisional estimates of commodity Boards/UPASI.

TABLE 4.5

Index of Area Production and Productivity of crops in Kerala
 Base year: Average of Triennium ending 1979-80

(1)	Area			Production			Productivity		
	Average of 3 years 1976-77 to 1978-79	1987-88	1988-89	Average of 3 years 1976-77 to 1978-79	1987-88	1988-89	Average of 3 years 1976-77 to 1978-79	1987-88	1988-89
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
All Crops (A+B)	101.48	100.15	103.62	100.17	85.32	80.61	98.71	85.13	77.72
A. Food Grains (1+2)	102.55	74.86	71.54	98.67	80.82	78.46	96.22	107.73	109.43
1. Cereals	102.59	74.98	71.38	98.85	80.23	77.80	96.35	107.00	109.09
2. Pulses	101.53	71.96	75.24	87.06	100.89	106.66	85.75	140.23	141.78
B. Non Food Grains (3 to 8)	101.00	111.78	118.39	100.52	86.29	81.08	99.52	77.20	68.46
3. Oil Seeds	101.66	115.25	127.87	103.48	107.88	122.92	101.79	93.50	94.72
4. Plantation crops	95.04	148.89	149.00	93.84	141.26	160.29	98.74	93.73	107.46
5. Condiments & Spices	100.65	121.59	128.95	89.40	120.76	118.34	88.82	103.29	95.74
6. Drugs and Narcotics	82.29	96.94	96.30	89.57	83.20	79.12	108.85	86.44	78.53
7. Fruits & Vegetables	103.20	83.70	80.96	105.94	85.46	82.94	102.65	96.64	89.84
8. Miscellaneous Crops	103.59	101.57	102.81	98.02	118.48	122.57	94.62	113.59	116.98

TABLE 4.6

Area, Production and Productivity of Rice in Kerala (Area in Ha., Production in tonnes and Productivity in Kg/Ha)

Season	Area		Production				Productivity					
	1987-88	1988-89	Change over the previous year	Per cent	1987-88	1988-89	Change over the previous year	Per cent	1987-88	1988-89	Change over the previous year	Per cent
Virippu (Autumn)	240445	233172	(-)7273	(-)3.02	420343	380244	(-)40099	(-)9.54	1748	1653	(-)95	(-)5.43
Mundakan (Winter)	293891	274151	(-)19740	(-)6.72	470308	474175	(+)3867	(+)0.82	1600	1730	(+)130	(+)8.13
Punja (Summer)	69746	70234	(+)488	(+)0.70	141934	147909	(+)5975	(+)4.21	2035	2106	(+)71	(+)3.49
Total	604082	577557	(-)26525	(-)4.39	1032585	1002328	(-)30257	(-)2.93	1709	1735	(+)26	(+)1.52

TABLE 4.7

High Yielding Variety Coverage of Rice in Kerala

Seasons	1984-85	1985-86	1986-87	1987-88	1988-89	Percentage to change bet- ween 1987-88 and 1988-89	Proportion of HYV to total rice (Per cent)	
							1987-88	1988-89
Area in ha.								
Virippu	112400	83782	80076	54760	62354	(+)13.87	22.77	26.74
Mundakan	63687	40650	44604	33763	37971	(+)12.46	11.49	13.85
Punja	44452	38846	41253	31311	36691	(+)17.18	44.89	52.24
Total	220539	163278	165933	119744	137016	(+)14.42	19.82	23.72
Production in Tonnes								
Virippu	233235	157225	142825	106653	108023	(+)1.28	25.37	28.41
Mundakan	122354	83489	92085	66597	76818	(+)15.34	14.16	16.20
Punja	98254	102479	101757	75212	86778	(+)15.37	52.99	58.67
Total	453843	343193	336667	248462	271619	(+)9.32	24.06	27.09
Average Yield in Kg/ha.								
Virippu	2075	1876	1784	1948	1732	(-)11.09	111.44	104.78
Mundakan	1921	2054	2065	1972	2023	(+)2.58	123.25	116.94
Punja	2210	2638	2467	2402	2365	(-)1.54	118.03	116.22
Total	2058	2102	2029	2075	1982	(-)4.48	121.42	114.24

TABLE 4.8

District-wise Area, Production and Productivity of HTV of Rice in Kerala 1988-89

Sl.No.	District	Autumn			Winter			Summer			Total		
		Area (Ha.)	Production (Tonnes)	Productivity (Kg/ha)	Area (Ha.)	Production (Tons)	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)
1.	Trivandrum	2440	4892	2005	1190	2238	1881	17	18	1059	3647	7148	1960
2.	Quilon	9847	17182	1745	1045	1836	1757	3	3	1000	10895	19021	1746
3.	Pathanamthitta	2375	3991	1680	2059	4397	2135	2868	8744	3049	7302	17132	2346
4.	Alleppey	9470	12432	1313	6774	16047	2369	10415	27311	2622	26659	55790	2093
5.	Kottayam	6869	12585	1832	7064	15528	2198	6510	17338	2663	20443	45451	2223
6.	Idukki	323	753	2331	373	866	2322	..	..	..	696	1619	2326
7.	Ernakulam	8178	13634	1667	3902	6792	1741	3142	5517	1756	15222	25943	1704
8.	Trichur	2934	4364	1487	6658	12493	1876	7479	15410	2060	17071	32267	1890
9.	Palghat	8855	18249	2061	1038	2179	2099	526	801	1523	10419	21229	2037
10.	Malappuram	3881	6658	1715	2612	4030	1543	2630	5786	2200	9123	16474	1806
11.	Kozhikode	626	759	1212	706	1011	1432	1194	1616	1353	2526	3386	1340
12.	Wayanad	..	..	..	1993	4737	2377	1670	3820	2287	3663	8557	2336
13.	Cannanore	4965	8886	1790	1942	3476	1790	112	153	2287	7019	12515	1783
14.	Kasaragode	1591	3638	2287	615	1188	1932	125	261	2088	2331	5087	2182
15.	Kerala	62354	108023	1732	37971	76818	2023	36691	86778	2365	137016	271619	1982

TABLE 4.9

Area, Production and Productivity of Rice in Kerala (District-wise) (Area in Ha., Production in tonnes and Productivity in Kg/ha)

District	Area				Production				Productivity			
	1987-88	1988-89	Change over the previous year	Percentage	1987-88	1988-89	Change over the previous year	Percentage	1987-88	1988-89	Change over the previous year	Percentage
Trivandrum	23300	21487	(-1813)	(-7.78)	36577	35929	(-648)	(-1.77)	1542	1672	(+130)	(+8.43)
Quilon	30227	27876	(-2351)	(-7.78)	53496	45761	(-7735)	(-16.90)	1770	1641	(-129)	(-7.29)
Pathanamthitta	14102	13537	(-565)	(-4.00)	33490	29253	(-4237)	(-12.65)	2375	2161	(-214)	(-9.01)
Alleppey	60763	64404	(+3641)	(+5.99)	123122	117685	(-5437)	(-4.41)	2026	1827	(-199)	(-9.82)
Kottayam	29854	28661	(-1193)	(-3.99)	66062	60548	(-5514)	(-8.35)	2213	2112	(-101)	(-4.56)
Idikki	5368	5206	(-162)	(-3.02)	10657	11282	(+625)	(+5.86)	1985	2167	(+182)	(+9.17)
Ernakulam	79818	71266	(-8552)	(-10.71)	119810	118735	(-1075)	(-0.89)	1501	1666	(+165)	(+10.99)
Trichur	84176	78862	(-5314)	(-6.31)	130887	120019	(-10868)	(-9.05)	1555	1522	(-33)	(-2.12)
Palghat	144665	142293	(-2372)	(-1.64)	266049	275129	(+9080)	(+3.41)	1839	1933	(+94)	(+5.11)
Malappuram	56471	52709	(-3762)	(-6.66)	79021	74067	(-4954)	(-6.27)	1399	1405	(+6)	(+0.43)
Kozhikode	15580	13579	(-2001)	(-12.84)	15996	14702	(-1294)	(-8.09)	1027	1083	(+56)	(+5.45)
Wayanad	21299	20393	(-906)	(-4.25)	31261	40210	(+8949)	(+28.62)	1702	1972	(+270)	(+15.86)
Cannanore	22505	20804	(-1701)	(-7.56)	33608	31231	(-2375)	(-7.07)	1493	1501	(+8)	(+0.53)
Kasaragod	15954	16480	(+526)	(+3.29)	27571	27777	(+206)	(+0.74)	1728	1685	(-43)	(-2.49)
Kerala	604082	577557	(-26525)	(-4.30)	1032605	1002328	(-30277)	(-2.93)	1709	1735	(+26)	(+1.52)

TABLE 4.10

Production, Import, Export & Consumption of Rubber India
(Tonnes)

Items	1984-85	1985-86	1986-87	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)
Production					
Natural Rubber	186450	200465	219520	235197	259172
Synthetic Rubber	37669	34758	38816	44468	53758(p)
Reclaimed Rubber	34155	39195	38995	40535	40960
Import					
Natural Rubber	37461	41431	45356	53685	59835
Synthetic Rubber	30248	39086	32600	30100*	31670*
Consumption					
Natural Rubber	217510	237440	247305	287480	313830
Synthetic Rubber	65400	70035	71785	76410	84150
Reclaimed Rubber	34625	38215	38635	41140	41200
Total Consumption	317535	345690	367725	405030	439180

*—Incomplete
p—Provisional

TABLE 4.11

Area Production & Productivity of Rubber in KERALA & INDIA

(1)	Kerala			India		
	Area ('000 ha.)	Production (M.T.)	Productivity (Kg/ha)	Area ('000 ha.)	Production (M.T.)	Productivity (Kg/ha.)
	(2)	(3)	(4)	(5)	(6)	(7)
1984-85	312.0	172092	890	351.8	186450	886
1985-86	326.7	184563	897	369.3	200465	898
1986-87	337.7	202129	924	384.0	219520	926
1987-88	350.9	216562	942	400.6	235197	944
1988-89	359.3	238414	967	415.0	259172	974

TABLE 4.12

Average Market Price of Indigenous Natural Rubber in Kottayam Market

(Rupees per quintal)

		RMA-4	Upgraded rubber
	1984-85	1655	1587
	1985-86	1732	1661
	1986-87	1660	1592
	1987-88	1791	1726
	1988-89	1815	1745
April	1989	1858	1839
May	1989	2020	1978
June	1989	2284	2233
July	1989	2538	2410
August	1989	2509	2309
September	1989	2047	1942
October	1989	1902	1844
November	1989	1933	1823
December	1989	2007	1943

TABLE 4.13

Performance of Tea in Kerala

(1) Area and production

Year	Area (Ha.)	Production (Tonnes)	Productivity (Kg/ha.)
1987	34640	56276	1625
1988	34640	65771	1899

(2) Marketing

Year	Average auction price (Rs./Kg.) (Kerala)	Exports from India (000kg)	Value (1000 Rs.)
1987	22.28	2,04,230	6500400
1988	20.49	2,15,420	6011630

Source:- UPASI

TABLE 4.14

Performance of Coffee in Kerala

Year	Area (Ha)	Production (Tonnes)	Productivity (Kg/Ha.)
1987-88	65637	22925	349
1988-89	65637	47425	722

Prices at Auctions

Rs. per 50kgs. All India

Year	Plantation 'A'	Ara: Cherry 'B'	Rob Cherry 'C'
A. Poolz sales			
1987	1017.50	878.00	975.00
1988	1087.25	918.50	838.50
1989	1239.00	1100.00	926.50
B. Export sales			
1987	1455.00	1193.00	1260.50
1988	2014.75	1667.25	1537.50
1989	1848.50	1544.50	1288.75

Exports from India

Financial year	Quality (tonnes)	Value (Rs./crores)
1986-87	86,666	362.83
1987-88	92,461	259.84
1988-89	98,247	337.62

Source: UPASI

TABLE 4.15

Performance of Cardamom in Kerala

1. Area, Production and Productivity

Year	Area (Ha.)	Production (tonnes)	Productivity kg/ha.
1987-88	64627	2050	32
1988-89	59377	2108	36

2. Auction Prices Rs./kg.

(Peak season)
July/August

1986-87	116.82
1987-88	141.68
1988-89	134.09

3. Exports from India

	Qty. (tonnes)	Value (Rs. in crores)
1986-87	1447	18.49
1987-88	270	3.40
1988-89	787	10.28

TABLE 4.16
Selected Indicators of Agricultural Development

Programme	Unit	1987-88	1988-89
1. Fertilizer Consumption	Tonnes		
(a) Nitrogen	"	70730	80238
(b) Phosphorus	"	49350	50884
(c) Potash	"	62410	82805
2. Plant Protection			
(a) Seeds treated	'000 tonnes	2618	N.A.
(b) Area under seed	Lakh ha.	0.374	0.380
(c) Fungicides-Liquid & Solid (in terms of technical grade)	tonnes	468.81	469.08
(d) Insecticides-Liquid and solid (in terms of technical grade)	"	556.54	667.22
(e) Weedicides (in terms of technical grade)	"	25.73	27.68
(f) Rodenticides (in terms of technical grade)	"	7.92	11.02
(g) Area under plant protection coverage	Lakh ha.	5.366	7.580
(h) Rodent control operation	"	1.784	0.799
(i) Biological control of <i>Nephanth's serinopa</i> -parasite liberated	Lakh Nos.	177.266	216.438
(j) Weed control	" ha.	1.578	1.317
(k) Trees sprayed for control of coconut leaf diseases	" No.	9.972	Nil
(l) P. P. equipments distributed	" Nos.	845	844
3. High Yielding seeds			
(a) HYV seeds of paddy distributed from State Seed Farms and other Government agencies	Tonnes	2450.22	1980.14
(b) Coverage of HYV including natural spread	Lakh ha.	1.20	1.37
4. Quality planting materials distributed			
(a) Coconut seedlings	Lakh Nos.		
(i) WCT	"	13.43	12.96
(ii) TxD	"	0.30	0.64
(iii) DxT	"	0.09	0.14
(b) Rooted pepper cuttings			
(i) Panniyoor I	"	4.98	10.67
(ii) Other varieties	"	12.55	
(c) Cashew layers	"	0.01	0.19
(d) Nutmeg seedlings	"	0.05	0.19
(e) Clove seedlings	"	0.56	0.40
5. Vegetable Programme			
(a) No. of Krishibhavan involved	No.	815	815
(b) Vegetables produced, procured and distributed	MT	6117	6117
(c) No. of kits distributed	Lakh No.	5.00	5.00
6. Soil Testing			
(a) Soil samples collected	Nos.	235427	253048
(b) Soil samples analysed	"	204505	220998
7. Short term loans			
Amount distributed through KSOB	Rs. lakhs	400.00	720.00
8. Small and Marginal Farmers Programme			
<i>No. of Minikits distributed</i>			
(a) Pulses	4 kg. kits	73686	30200
(b) Oilseeds—sesamum	1 "	21345	42315
(c) Coconut seedlings	No.	74074	46498
(d) Groundnut	30 kg. kit.	2663	2818
9. Biogas Development			
(a) Biogas unit constructed	No.	1789	2423
(b) Subsidy disbursed	Rs. lakhs	73.714	85.12

(1)	(2)	(3)	(4)
10. Location specific schemes			
(a) No. of credit schemes formulated	No.	..	3058
(b) Amount involved	Rs. in lakhs	..	4660.08
(c) Area benefitted	Ha.	..	44294
(d) No. of beneficiaries	No.	..	98730
(e) Amount distributed to beneficiaries	Rs. in lakhs	..	2452.74
11. Coconut Development Programme			
(a) Pumpsets distributed under G.D.B. Programme	No.	700	243
(b) Diseased/senile palms cut and removed	No.	5695	16701
(c) No. of irrigation sources constructed	No.	30	115
(d) Area covered under multispecies cropping	Ha.	950	1500
12. Spices Development Programme			
(a) Distribution of HYV of pepper cuttings	No. in lakhs	4.89	19.99
(b) Input kits distributed	No.	43195	47498
(c) Sprayers ..	No.	95	170
(d) Clove seedlings ..	No.	33126	45802
(e) Nutmeg ..	No.	2408	15863
(f) Rehabilitation of pepper garden	Ha.	500	2498

TABLE 4.17

Physical Achievements under Special Component Plan and Tribal Sub Plan

Sl.No.	Particulars of benefits given	Unit	1988-89	
			Under Special Component Plan to SCs.	Under Tribal Sub Plan to scheduled tribes
(1)	(2)	(3)	(4)	(5)
1.	No. of Colonies benefitted	Nos.	4849	603
2.	No. of families benefitted	Nos.	150105	13579
3.	Area benefitted	Ha.	11178	3595
4.	Coconut seedlings	Nos.	219894	61367
5.	Pepper cuttings	"	639133	352818
6.	Clove cuttings	"	4502	..
7.	Banana Suckers	"	82170	9375
8.	Mango grafts	"	5994	..
9.	Pineapple suckers	"	57961	..
10.	Cashew seedlings	"	10000	2215
11.	Pulse seeds	"	..	10092
12.	Vegetable seeds	Packets	6622	900
13.	Coffee seedlings	Nos.	440	..
14.	Tapioca setts	"	..	1200
15.	Pumpsets installed	No.	19	..
16.	Wells constructed	"	210	25
17.	Soil conservation works	Ha.	24.00	24.00
18.	Agro Service Centres	No.	14	5
19.	Paddy seeds	Kg.	3036	1010
20.	Rocker sprayer	No.	..	363
21.	Knapsack sprayer	"	520	422
22.	Power tiller	"	61	5
23.	Tractors	"	7	7
24.	Lemongrass distilling unit	"	..	28

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23.	Tractors	"	7	7
24.	Lemongrass distilling unit	"	..	28

TABLE 4.18

Commodities graded under Agmark 1984-85 to 1988-89

(Quantity in Qtls. and value in Rs. lakhs)

Year	Coconut oil		Gingelly oil		Honey		Ground spices	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1984-85	8785	283.04	5847	108.29	752	18.16	1541	26.09
1985-86	35015	649.33	6502	78.18	879	22.18	1411	36.12
1986-87	33697	950.54	7459	92.76	366	11.53	1391	28.55
1987-88	66990	1992.01	10270	338.88	1496	50.96	1157	34.84
1988-89	27840	779.52	404	13.33	615	21.52	511	20.44

TABLE-4.21

District level Institutions under the Animal Husbandry Department as on 31-12-1989

Sl. No.	Institutions	Trivandrum	Quilon	Pathanamthitta	Alleppey	Kottayam	Idukki	Ernakulam	Trichur	Palghat	Malappuram	Kozhikode	Wayanad	Cannanore	Kasaragod	Kerala
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	District Veterinary Centres	1	1	..	1	1	..	..	..	1	..	1	..	1	..	7
2	Veterinary Polyclinics	2	2	4	6	4	3	5	6	4	4	2	3	5	1	51
3	Veterinary Hospitals	10	11	7	9	10	5	12	12	8	6	5	2	5	3	105
4	Mobile Veterinary Hospitals	1	1	..	2	1	1	1	1	1	1	1	..	1	..	12
5	Mobile Farm Aid Units	1	1	1	1	2	2	1	1	3	2	..	1	2	..	18
6	Veterinary Dispensary	50	37	25	30	34	32	50	48	34	33	33	13	35	22	476
7	Veterinary Sub Centres	2	4	8	2	1	1	7	19	18	13	10	3	1	3	92
8	Intensive Cattle Development Projects	1	1	1	..	..	..	1	..	1	..	1	..	1	..	7*
9	Regional Artificial Insemination Centres	5	4	3	2	2	..	1	1	2	1	1	1	4	1	28
10	Artificial Insemination Sub Centres (ICDP)	125	94	81	51	52	..	26	32	57	26	25	35	85	30	719
11	Artificial Insemination Centres/Sub Centres (Other than I.C.D.P.)	..	..	6	2	..	1	3	4	2	1	1	..	1	..	21
12	Livestock & Marine Products Testing Laboratory	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
13	District Livestock Farm	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
14	Jersey Farm	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
15	Jersey Farm Extension Unit	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
16	Buffaloe Breeding Farm	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
17	Goat Farm	..	..	..	..	..	..	..	..	1	..	..	..	1	..	2
18	Pig Farm	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1

*(Including one proposed for the current year)

Source: Department of Animal Husbandry

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
19	Pig Breeding Unit	1	..	..	..	1	..	1	1	..	..	..	..	1	..	5
20	Pig Development Office	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
21	Fodder Development Unit	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22	Intensive Poultry Development Block	1	..	..	..	..	..	1	..	..	..	..	..	..	..	2
23	Regional Poultry Farm	1	1	..	..	1	..	1	..	1	..	1	..	1	..	7
24	District Poultry Farm	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2
25	Poultry Sub Centres	2	..	..	..	..	..	..	..	..	..	..	..	..	..	2
26	Broiler Unit	1	..	..	..	..	..	..	..	..	..	..	..	1	..	2
27	Broiler Sub Units	3	..	..	..	..	..	..	..	..	..	..	..	..	..	3
28	Duck Farm	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
29	Central Hatchery	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
30	Chick Sexing School	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
31	Turkey Farm	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
32	Poultry Training Centre	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
33	Livestock Management Training Centre	1	..	..	..	..	..	1	..	..	..	..	..	1	..	3
34	Feed Compounding Factory	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
35	Feed Mixing Units	2	..	..	..	..	..	1	..	..	..	..	..	1	..	4
36	Poultry Feed Testing Laboratory	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
37	Rinder pest Eradication Project	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
38	Rinderpest Eradication Checkpost	1	1	..	..	..	3	..	..	8	1	..	2	1	1	18
39	Rinderpest Eradication Mobile Unit	..	..	..	..	..	..	1	1	..	..	..	..	..	..	2
40	Rinderpest Eradication Vigilance Unit	1	1	..	..	1	..	..	..	1	..	1	..	1	..	6
41	Institute of Veterinary Biologicals & Animal Health	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
42	Clinical Laboratory	1	1	..	1	1	1	1	..	1	1	1	..	1	..	10
43	Avian Disease Diagnostic Laboratory	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
44	Mastitis Control Laboratory	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
45	Chief Disease Investigation Laboratory	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
46	Disease Investigation Laboratory Cannanore	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
47	Calf Feed Subsidy Assistant Director's Office	..	1	..	1	1	..	..	..	1	..	1	..	1	..	6
48	Central Veterinary Stores	1	..	..	..	..	..	..	1	..	..	1	..	..	..	3
49	Disease Free Zone Project Office	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
50	Disease Free Zone Unit Office	1	1	1	..	..	..	..	..	..	..	..	..	..	..	3
51	District Animal Husbandry Office	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Total		222	165	140	114	114	51	117	128	146	91	86	61	152	63	1650

TABLE 4.22

Details of funds received by the Forest Research Institute from
7/75 to 1988-89.

(Rs. in lakhs)

<i>Sl. No.</i>	<i>Particulars</i>	<i>Amount</i>
1	Government of Kerala	647.70
2	FAO	2.90
3	Kerala Forest Department	6.00
4	Department of Science and Technology	0.10
5	Department of Environment	14.60
6	Hindustan Paper Corporation	0.08
7	Gwalior Rayons	0.15
8	Coconut Development Board	0.55
9	Ford Foundation	2.86
10	I.D.R.C. Canada	11.22
11	UNESCO	1.14
	Total	687.30

IRRIGATION AND POWER

A. Irrigation

The irrigation potential of the State is estimated at 16 lakhs ha. (net) or 25 ha. (gross). Till the end of March 1989 an area of 3.72 lakh ha. (net) or 6.11 lakh ha. (gross) i.e. 24% of the potential was brought under irrigation through major, medium and minor irrigation schemes with an investment of Rs. 766.19 crores.

A. Major and Medium Irrigation

5.2 The total extent of land that can be brought under irrigation through major and medium irrigation scheme is estimated at 6 lakh ha. (net) or 14 lakh ha. (gross). The ten completed irrigation schemes viz., Chalakudy, Peechi, Malampuzha, Neyyar, Pothundy, Gayathri, Walayar, Vahani, Mangalam and Cheerakuzhy irrigate an area of 0.77 lakh ha. (net) or 1.47 lakh ha. (gross). Till the end of 1987-88 through partial commissioning of seven ongoing schemes viz., Kallada, Pamba, Periyar Valley, Chitturpuzha, Kanbira puzha, Kuttiady and Pazhassi an additional area of 1.03 ha. (net) or 2.32 ha. (gross) has been brought under irrigation. During 1988-89, an amount of Rs. 5323.74 lakhs was spent on irrigation schemes and additional area brought under irrigation is 975 ha. (net) or 1640 ha. (gross). This is from two schemes viz., Kallada 620 ha. (net) or 930 ha. (gross) and Pazhassi 355 ha. (net) or 710 ha. (gross).

5.3. Thus till the end of 1988-89, the total investment on major and medium projects is Rs. 676.58 crores and area benefited is 1.80 lakh ha. (net) or 3.80 lakh ha. (gross).

5.4 None of the ongoing schemes was completed in all respects during the year under review. Pamba, Periyar Valley, Chitturpuzha-Moolathara, Pazhassi, Kuttiady and Kanhirapuzha projects are in advanced stages of completion. Other schemes are in various stage of implementation. The details of costs, expenditure and achievement of major and medium schemes and physical and financial achievements of ongoing schemes are given in Appendix 5.1 and 5.2.

Minor Irrigation

5.5 The area reported to be brought under irrigation through minor irrigation schemes in the State till the end of 1987-88 is 1.81 lakh ha. (net) or 2.18 lakh ha. (gross) by spending an amount of Rs. 8025 lakhs. During 1988-89 the approved outlay for minor irrigation schemes (surface water and ground water) was Rs. 1350 lakhs which was expected to create an additional irrigation potential of 11,405 or 13,545 ha. (gross). To achieve this 895 works under different categories of schemes were taken up for implementation. Due to financial constraints only Rs. 1121.96 lakhs (Rs. 926.886 lakhs for surface water and Rs. 195.08 lakhs for Ground Water Schemes) could be spent during the year. 276 works under various categories were completed creating an additional irrigation

potential of 10014 ha. (net) or 11,741 ha. (gross) 41 M.I. Class I schemes, 52 M.I. Class II schemes 49 lift irrigation schemes, 32 I.P.D. Yelah schemes, 63 Community irrigation schemes, 15 Special Component Plan schemes and 7 schemes under Tribal sub plan were completed. Apart from this 30 damaged schemes were also renovated during 1988-89. Thus the total area brought under irrigation through minor irrigation schemes till the end of 1988-89 is 1.918 lakh ha. (net) or 2.30 lakh ha. (gross) by spending an amount of Rs. 9146.96 lakhs. The physical and financial achievements under minor irrigation schemes are given in appendix 5.3 and 5.4.

Flood Control and Antisea erosion

5.6 The details of physical and financial achievement under flood control and antisea erosion programmes are given in appendix 5.5. During 1988-89 an amount of Rs. 136.75 lakhs was spent to protect an area of 1740 ha. from the ravages of flood. Under antisea erosion, 3.80 km. new wall were constructed and 4.10 km. old and damaged sea wall were reformed to standard size by spending an amount of Rs. 401.08 lakhs during 1988-89.

Command Area Development

5.7 The Command Area Development Programme envisages overall development of the command areas in respect of the ten completed irrigation schemes viz., Malampuzha, Walayar, Pothundy, Gayathri, Mangalam, Peechi, Chalakudy, Vazhani, Cheerakuzhy and Neyyar. The main activities under the programme are construction of field channels and field drains, land levelling, land shaping, introduction of warabandi etc.

5.8 Upto the end of 1987-88 an amount of Rs. 523.29 lakhs was spent and field channels were constructed to benefit an area of 21,222 ha. Rotational supply of water was ensured and beneficiary farmers' associations were organised and registered for the efficient use of water and other water management practices. During 1988-89 an amount of Rs. 400.78 lakhs was spent for command area development programmes. Field channels were constructed to cover an area of 9818 ha. warabandi (rotational distribution water) system was introduced in more areas and demonstration and adaptive trials on better water management practices and scientific and improved method of cultivation were conducted in the area.

B Power Development

5.9 The favourable monsoons in 1988-89, after a severe dry spell during the previous year, helped to replenish the storage position of the hydel reservoirs. As a result the generation of power in 1988-89 increased by 11% from 4093 MU in 1987-88 to 4550 MU in 1988-89. The project-wise details of installed capacity, energy potential and energy generated during 1988-89 are given in Appendix-5.6.

5.10 The installed capacity of all the ten completed hydro electric projects stood at 1476.5 MW. No new projects were commissioned during the year under review and hence no addition to the installed capacity. Electricity generated within the State was 4550.2193 MU which was supplemented by the power imported of 1264.71 MU (NTPC 510.44 MU, MAPP 252.13 MU, NLC 502.14 MU). The import was 1035.936 MU during 1987-88. The power available for sale after allowing auxiliary consumption was 5786.28 MU, and Power sold was 4387 MU, as against 3624.606 MU during the previous year, thus registering an increase of 21%. Transmission and distribution loss during 1988-89 is 26.15% against 28.35% during the previous year.

5.11 Growth of power system at a glance as on 31-3-1989 is given in Appendix-5.7. The per capita consumption of power in the State has increased to 148.11 Kwh in 1989 from 125.75 Kwh during 1983 registering an increase of 17.8%. During the year under review the number of consumers has gone upto 29.34 lakhs from 27.7 lakhs during the previous year, registering an increase of 1.64 lakhs, and connected load from 3568 MW to 3757.57 MW in 1988-89. During the year 1988-89, 15,482 irrigation pumps were energised, 579 distribution transformers and 7011 street lights were installed, 7 new EHT sub stations were opened.

5.12 Total revenue from the sale of power during 1988-89 amounted to Rs.24828 lakhs as against Rs.19978 lakhs during 1987-88 registering an increase of Rs. 4850 lakhs i. e. 24% increase over the previous year. This was partly due to the higher power consumption during the year and also the hike in the tariff rates by the revision in 1-8-1988.

5.13 At present there are 17 ongoing hydro electric projects in various stages of implementation. Of this Forest clearance for the pooyankutty project is awaited from the Government of India.

5.14 The details of ongoing hydro electric schemes in the State with expected energy potential and latest position are given below:

Commissioning Programme	Present stage
1. Idukki Stage III (376 MU) 3/90	Works almost completed.
2. Sabarigiri Augmentation (125MU) 6/90	Partial diversion of water effected in 6/89.
3. Azhutha diversion (57 MU) under Idukki Stage II 10/90	Works commenced gaining momentum.
4. Kakkad (50 MW-262 MU) 6/92, 9/92	Dam almost completed: I. C. Tunnel driving 74% completed. Power House structure almost over. Erection of EOT Crane completed. Erection of generating machinery started.

5. Kallada Dam toe 12/90 Power Station (15 MW-53 MU). Construction of the dam toe Power House building in progress. EOT Crane erected and erection of generating machine started.
6. Lower Periyar 3/92, 6/92, 9/92 (180 MW-493 and 493 MU) Power Tunnel driving almost over and lining 14% done. Works stopped on 22-7-1989 due to floods, have not yet been resumed. Excavation for Dam, Pressure Shaft, Surge and Power House are in progress.
7. Malampuzha Dam 12/90 toe Power Station (2.5 MW -5.6 MU) Orders placed for generating equipment Contract also awarded for the construction of Power House building.
8. Madupetty Dam 3/91 toe Power Station (2 MW-6.4 MU) Orders placed for the generating equipment. Excavation for Power House building almost over.
9. Malankara Dam 1991-92 toe Power Station (7 MW -36 MU) First stage excavation for Power House completed. Tenders for Power House Building being invited. Tender Notice issued for supply and erection of generating equipment.
10. Chimoni Dam toe 1991-92 Power Station (2.5 MW-6.5 MU) First Stage excavation for Power House in progress. Tenders have been received for the supply and erection of generating equipments.
11. Peppara Dam 1991-92 toe Power Station (3MW-11.5 MU) Contract awarded for construction of Power House building. Orders also placed for supply and erection of generating equipment. Sanction from Forest Department is yet to be received for commencing works.
12. Kuttiar Diversion 1992-93 (37 MU) to Idukki Reservoir Project sanctioned and preliminary works started.
13. Vadakkepuzha 1991-92 Diversion (12 MU) to Idukki Reservoir do.

14.	Vazhikkadavu 1992-93 Diversion (24 MU) to Idukki Reservoir	do.	16-6-1989 to 20-6-1989	40% power cut for HT for connected load less than 250 KVA and LT having connec- ted load greater than 100 KVA and 100% cut for all other EHTS.
15.	Poringalkuthu 1992-93 L. B. extension (16 MW- 38 MU)	do.	16-6-1989 to 30-6-1989	100% Power cut for EHT
16.	Kuttiady Tail- 1992-93 race (2.5 MW- 15 MU)	do.	21-6-1989 to 31-7-1989	40% Power cut for all HT consumers
17.	Pooyankutty 1992-93 Stage I (240 MW-645 MU)	Project sanctioned in 8/86. Sanction from Government of India for the forest clearance required for the project yet to be obtained.	1-7-1989 to 31-7-1989	60% Power cut for EHT con- sumers.

From 1-8-1989 the power cut was lifted.

Load Shedding.

Daytime

2-5-1989 to 15-5-1989	— 3 hrs.
16-5-1989 to 15-6-1989	— 5 hrs.
16-6-1989 to 20-6-1989	— 3 hrs.

Night time

1-6-1989 to 3-6-1989	City 30 minutes. Taluk and District Head- quarters 1½ hr. Rural area 2 hrs.
4-6-1989 to 15-6-1989	City 1 hr. Taluk and District Headquarters 1½ hr. Rural area 2 hrs.
16-6-1989 to 20-6-1989	City ½ hr. Taluk and Dis- trict Headquarters 1hr. Rural area 1½ hrs.

Power tariff

5.18 The power tariff was revised with effect from 1-8-1988 as per Order No. BO No. Plg. Com. 800/88/EHT dated 30-7-1988. This hike in tariff rate was effected to almost all categories of consumers. This tariff hike has been further revised and the following amendments had been made in the tariff structure during 1989 as per orders given below:

Order No. and date	Major amendment
BO No. Plg. Com. 800/88/EHT dated 18-10-1988	Revision in the Demand charges and energy charges slab selection
„ 6-12-1988	Option given in selecting the slab of consumers choice once on 12 months.
„ 29-12-1988	Energy charges for Cinema theatres revised
„ 29-5-1989	Private hospitals included under LT consumers
„ 5-7-1989	Preparation of final bill for domestic consumers
„ 18-9-1989	LT tariff amendment
„ 24-11-1989	Refund of electricity duty under section 4, of Keraal Electricity duty act.
„ 24-1-1990	Arrear current charges—sanction of instalments and waiver of interest charges for slab consumers.

5.15 The details of year of starting, original and latest estimated costs and expenditure upto 3/89 and energy potential of the ongoing projects are given in appendix 5.8.

Consumption pattern and average revenue realisation from the sale of Power

5.16 The pattern of power consumption and revenue realised from sale of power during 1988-89 is given in Appendix 5.9. As will be seen from the statement, the percentage of power consumed by the domestic lights, heat and small power category had declined from 29.6% in 1987-88 to 28.6% in 1988-89. The average revenue realisation per unit had increased from 41.28 ps. to 44.87 ps. in 1988-89. Similarly the percentage of consumption by the commercial category of consumers had also decreased from 10.77% in 1987-88 to 10.17% in 1988-89 and average revenue per unit had shown a decline from 96.56 ps. from 1987-88 to 92.88 ps. in 1988-89. In the case of public water works category, the average revenue realised had decreased from 37.41 ps. in 1987-88 to 31.61 ps. in 1988-89. The average revenue realisation per unit of public lightings category had decreased from 106.94 ps. in 1987-88 to 91.20 ps. in 1988-89. Only in the category of bulk supply there was an increase in the average realisation per unit of power. In that category, the average realisation per unit had gone up from 49.65 ps. in 1987-88 to 53.89 ps. in 1988-89. The average revenue realisation from the sale of power to all the categories combined had shown a slight increase from 55.66 ps. in 1987-88 to 56.59 ps. in 1988-89.

5.17 Though there has been improvement in the overall Power generation, power shortage continues to be a problem. The ever increasing demand for power outstrips its availability. During 1988-89, despite improved power generation, the K.S.E.B. has imposed power cut and load shedding on the consumers. The details of power cut and load shedding imposed to various categories of consumers during 1989 are give below:

Power cut:

1-1-1989 to 31-1-1989	20% power cut for HT and EHT consumers
1-2-1989 to 30-9-1989	40% for HT and EHT
1-5-1989 to 31-5-1989	60% for HT and EHT
1-6-1989 to 15-6-1989	100% cut for all HT and EHT

37/1086/MC.

5.19 The agency for Non Conventional Energy for Rural Technology was established in 1986. The main objective of the agency is to gather and disseminate knowledge in various fields of Non Conventional Energy, Energy conservation and Rural Technology, conduct studies and demonstrations, implement and support implementation of projects and schemes in these fields. ANERT is the nodal agency in the State for implementing the various National Programme of Non Conventional Energy like National Programme on improved Chulah (NPIC), Solar photo voltaic programme, solar thermal extension programme, wind mapping and wind monitoring programme, wind mill pumping demonstration programme, National biomass gasifier programme, Urjagams and Integrated Rural

Energy Planning Programmes (IREP). Till the end of 1988-89; 4 Blocks viz., Wadakkanchery, Mananthavady, Athiyannoor and Neeleswar have been brought under IRE Programmes. Till the end of 1987-88 under the National programme on improve chulah, 38,424 improved fuel efficient smokless chulah were distributed in the IREP covered block areas. The expenditure incurred till the end of 1987-88 by ANERT is Rs. 31.10 lakhs. During 1988-89, over and above the normal functions of the Department, 40,527 fuel efficient smokless chulah were distributed with heavy subsidy in the block areas; where IRE programme is being implemented. An amount of Rs. 16.83 lakhs was spent by the Department to implement the schemes.

CHAPTER 6

INDUSTRY

The Industrial Scenario

The power cut imposed to industrial consumers in the State during 1987-88 continued unabated during 1988-89. The extent of power cut varied from 20 per cent to 40 per cent during different spells depending on the type of consumers. This shortage in power, the most vital input of industry, and related problems retarded the normal industrial progress of the State. However, provisional estimates of net State domestic product, put the rate of increase in industrial production at a little over 8 per cent during 1988-89.

6.2 The net domestic product at current prices from the manufacturing sector of the State for 1988-89, according to quick estimates, was Rs. 1987 crores, which recorded 8.1 per cent increase over that for the previous year (Rs. 1006 crores), when the rate of growth was 7.7 per cent. The rate of growth during 1988-89 was higher in the unregistered manufacturing sector at 9.3 per cent, than the growth rate of 7.2 per cent in the registered sector. At constant (1980-81) prices the net domestic product in the manufacturing sector increased by 8.2 per cent during 1988-89 to Rs. 584 crores (quick estimates) from 540 crores during the previous year. Similarly at constant prices the unregistered manufacturing sector recorded a higher rate of growth of 9.3 per cent, than the registered manufacturing sector with 7.3 per cent growth.

6.3 The years 1987 and 1988 witnessed considerable improvement in the industrial climate of the State. There was substantial fall in the number of industrial disputes and loss of mandays during these years. There were only 67 industrial disputes in the State during 1988, as against 98 each during the previous two years. The number of workers affected decreased drastically from 1,32,912 in 1986 to 40,119 in 1987 and to 23,037 in 1988. 23.11 lakh mandays were lost due to industrial disputes during 1986. But this had come down to 20.01 lakh mandays during 1987 and further to 15.38 lakh mandays during 1988. The decline to the extent of 23.1 per cent in the number of mandays lost during 1988 over the previous year is an improvement which is noteworthy in the industrial scene of the State.

6.4 The small scale sector showed impressive growth during 1988-89 in regard to number of industrial units registered. As at the end of 1988-89 there were 55,427 small scale industries in the State. Of these, the number of units registered during 1987-88 and 1988-89 were 6849 and 8236 respectively, together, accounting for 27.2 per cent of the total number of units. In other words, over a quarter of the total small scale industrial units in the State were registered during these two years. The proportion of sick and closed units has also come down to 13.43 per cent during 1988-89, from 21.80 per cent in 1985-86, 15.78 per cent in 1986-87 and 15.77 per cent in 1987-88.

6.5 With the introduction of three point levy system there is improvement in the position regarding availability of husk at reasonable prices to the co-operative coir sector. But still the co-operative sector does not get adequate husk to provide full-time employment to all the labourers. Production of handloom cloth in the organised sector has improved during the year. But the ills of this industry still persist in the form of unsold stock of handloom goods and growth in the number of inefficient handloom co-operative societies. There was considerable improvement in the quantity of cashew procured under monopoly procurement programmes. CAPEX, with whom the monopoly procurement of cashew was entrusted, could procure 94,240 tonnes of raw cashewnut during 1989 cashew season as against 63,049 tonnes during the previous season. Cashew workers under the Kerala State Cashew Development Corporation and CAPEX could be provided with 100 to 116 days of work during 1988-89. The procurement operations in the current cashew season is going on smoothly in full swing.

Industrial Production

6.6 The index of industrial production evinced marginal improvement during 1987-88 over the previous year. There was 2.5 per cent increase in industrial production during 1987-88, when the index of industrial production (Base 1970=100) increased from 170.95 in 1986-87 to 175.19 in 1987-88. But it is still very much below the index of 200.60 attained during 1985-86. The first two quarters of the year 1987-88 showed substantial increase in industrial production when the indices were 180.74 and 187.36 respectively. The quarter ended December 31, 1987, however, evinced considerable fall in the index when it decreased to 169.91. During the last quarter of the financial year the index plummeted further to 162.73.

6.7 There was increase in industrial production in the sub groups of manufacture of food products, cotton textiles, wood and wood products, paper and paper products, rubber, plastics, petroleum and coal products, chemical and chemical products, non-metallic mineral products etc. Food products increased by 5.1 per cent and cotton textiles by 9.2 per cent during 1987-88 over the previous year. Manufacture of paper and paper products increased substantially by 33.7 per cent, chemical and chemical products by 7.5 per cent and non-metallic mineral products by 13.5 per cent during the year. The important industrial products, the production of which declined during 1987-88 over the previous year were wool, silk and synthetic fibre textiles (36.9 per cent), textile products including wearing apparel other than foot wear (37.5 per cent), metal products and parts except machinery and transport equipment (37.8 per cent), transport equipment and parts (25 per cent) and electricity (12 per cent). Details are given in Appendix 6.1 and 6.2.

Working Factories and Employment

6.8 The total number of registered working factories in Kerala increased to 12,483 by the end of 1988 from 11,982 in 1987 marking a growth rate of 4.2 per cent over that of the previous year. The number of factories in all the districts except Alleppey and Kasaragod has increased during 1988. The maximum increase in the number of factories was noticed in Trichur district where it rose from 1518 in 1987 to 1616 in 1988. But Ernakulam District stood first in the matter of total number of factories, with 2016 factories in 1988, followed by Trichur, Kozhikode and Cannanore. The number of factories in the Palghat and Wayanad districts has shown marginal growth in 1988 whereas that in the Kasaragod district remained at the previous year's level. A substantial fall in the number of factories is seen in Alleppey district as at the end of 1988, where the number has decreased by 65 from 758 at the end of 1987 to 693 at the end of 1988.

6.9 The total number of workers employed by the factory sector rose by 10,651 from 2,99,761 in 1987 to 3,10,412 in 1988, registering a growth of 3.6 per cent over the previous year. Increase in the number of workers engaged in the registered factories has been noticed in all the districts in the State during 1988 including Alleppey district where

there was a substantial fall in the number of factories. Maximum increase in the total number of workers was registered in Trivandrum district where it has increased from 22,220 in 1987 to 24,900 in 1988. The increase in the number of workers in the districts of Quilon, Trichur and Kottayam was of the order of 1981, 1823 and 1465 respectively during the year. The district-wise distribution of working factories and employment thereon in Kerala as at the end of December 1987 and 1988 are given in Table 6.1.

6.10 The cashew industry was providing maximum employment opportunities in the registered factory sector in the State as in the previous years. Total number of employment provided by 274 cashew factories in Kerala stood at 1,11,372 constituting nearly 36 per cent of the total number of workers engaged in the factory sector during 1988. Quilon district alone accounted for 32 per cent of the total number of workers employed by the cashew industry during this period. The factories engaged in the general engineering, manufacture of cotton textiles, chemical products, rubber products, tiles and automobile repairing were the other major employers in the factory sector of the State in 1988. The industry-wise and district-wise distribution of working factories in Kerala and the workers employed during the years 1987 and 1988 is shown in Appendix tables 6.3 and 6.4.

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

District (1)	Number of Factories		Employment (Nos.)	
	1987 (2)	1988 (3)	1987 (4)	1988 (5)
1. Trivandrum	501	551	22220	24900
2. Quilon	984	1041	104227	106208
3. Pathanamthitta	227	290	6154	6325
4. Alleppey	758	693	12705	12973
5. Kottayam	1028	1049	14349	15814
6. Idukki	261	282	5722	5871
7. Ernakulam	1956	2016	43768	43994
8. Trichur	1518	1616	26015	27838
9. Palghat	1259	1276	14819	15450
10. Malappuram	599	662	6669	6951
11. Kozhikode	1447	1520	22060	22326
12. Cannanore	1361	1392	19571	19976
13. Wayanad	77	89	1362	1464
14. Kasaragod	6	6	120	122
Total	11982	12483	299761	310412

Source: Department of Economics and Statistics

* Provisional

Joint Stock Companies in Kerala

6.11 In Kerala, there were 3634 joint stock companies as on 31-3-1989, consisting of 651 public limited and 2983 private limited companies. A total number of 326 companies were newly registered in the State during 1988-89. Of these, 297 were private limited and 29 were public limited. On the otherhand, eleven companies including seven private and four public limited companies were wound up while 17 companies were struck off for various reasons.

The net addition to the total number of companies during 1988-89, was 298 comprising of 274 private and 24 public limited companies. During this period, a new company, viz., "Kerala State Horticultural Products Development Corporation Limited" was registered as a fully owned Government undertaking of the State Government. The total number of Government companies has thus increased to 98 by the end of March, 1989 from 97 in March, 1988. The details of joint stock companies functioning in Kerala at the end of March, 1989 are given in Table 6.2.

TABLE 6.2

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 31-3-1988	2709	627	3336
2. Number of Companies newly Registered during 1988-89	297	29	326
3. Number of Companies Wound up and Struck off during 1988-89	23	5	28
4. Number of Companies transferred to other States during 1988-89	..	..	..
5. Net addition to total number of Companies during 1988-89 (Item 2-(3+4))	274	24	298
6. Total number of Joint Stock Companies in Kerala as on 31-3-1989 (Item 1+5)	2983	651	3634
7. Total number of Government Companies Registered in Kerala upto 31-3-1988	74	23	97
8. Number of Government Companies Registered in Kerala during 1988-89	1	..	1
9. Total number of Government Companies in Kerala as on 31-3-1989 (Item 7+8)	75	23	98

Source: Office of the Registrar of Joint Stock Companies, Cochin.

Industrial Promotional Agencies

Kerala State Industrial Development Corporation Limited

6.12 This corporation which is the premier agency engaged in the promotion of large and medium industries in the State, sanctioned financial assistance aggregating Rs. 2459.41 lakhs during 1988-89 by way of share capital, loan and guarantees to various industries in the State. Disbursement of financial assistance amounted to Rs. 1334.89 lakhs during this period. The Corporation got sanctioned Rs. 1005.69 lakhs from the IDBI as refinance loan and Rs. 31.63 lakhs as seed capital assistance for the projects assisted by the Corporation.

6.13 During 1988-89, eight projects involving a total cost of Rs. 14.24 crores and having direct employment potential of 1047 were commissioned with the assistance of this Corporation. They were the Deepthi Diamond Industries Limited, Trichur, Salar Solvent Extractions Limited, Palghat and BPL Sanyo Technologies Limited, Palghat in the joint sector, Silver Foam India Limited, Trivandrum,

Accelerated Freeze Drying Co. Limited, Alleppey, Otee Frini India Limited, Ernakulam and Watt's Electronics Private Limited, Ernakulam in the private sector and the diversification project of the Astral Watches Limited, one of the subsidiary companies of this corporation. As many as 21 projects costing Rs. 29.22 crores were taken up with the assistance of this corporation for implementation during this period. These projects would employ about 1400 persons on completion. Besides, a total number of 39 projects costing Rs. 65.30 crores and having employment potential of more than 3000 persons were under various stages of implementation during 1988-89. Thirteen projects involving an estimated cost of Rs. 20 crores were under various stages of finalisation/detailed study at the end of March, 1989.

6.14 The Corporation received letters of intent, DGTD Registration/SIA Registration for the products like electronic cordless telephones, aerospace engineering items, prestressed concrete railway sleepers and manganese sulphate salts during 1988-89. The Corporation signed Memoranda of Understanding with private parties including ten Non-Resident Indians for developing,

finalising and implementing 39 new large and medium projects in 1988-89. As part of its promotional activities, the Corporation organised Entrepreneurs' Meets at the headquarters of different districts in the State with a view to identifying prospective parties to associate with various projects envisaged by the Corporation.

Kerala State Electronics Development Corporation Limited

6.15 The Corporation, incorporated in 1972 with the major objective of promoting an integrated and self reliant electronic industry in the State is manufacturing a wide range of products including consumer electronics and professional grade electronic items covering control and instrumentation system through nine manufacturing divisions of its own. Besides, the Corporation has promoted eight subsidiary companies and five joint sector units in the State. Certain women's co-operatives sponsored by the Corporation are now engaged in the assembly of radios and tape recorders, in various districts.

6.16 The accounts of the Corporation for the year 1988-89 have not been finalised yet. The details regarding the performance of the Corporation for the first nine months of the financial year, 1988-89 indicate that the sales turnover of the Corporation for the year would be Rs. 92 crores, registering a growth of 35 per cent over the previous year's level of Rs. 68.39 crores. Similarly the value of production in the manufacturing divisions of the corporation for the year has been estimated at Rs. 34.64 crores indicating a growth of 20 per cent over the previous year's production of Rs. 28.73 crores. The working of the corporation during 1988-89 is expected to result in a loss of Rs. 300 lakhs.

Kerala State Industrial Enterprises Limited

6.17 The Kerala State Industrial Enterprises had seven Government owned companies under its management during 1988-89. They were the Kerala Soaps and Oils Limited, Kerala Electrical and Allied Engineering Company Limited, Kerala State Drugs and Pharmaceuticals Limited, Kerala State Detergents and Chemicals Limited, Travancore Plywood Industries Limited, Kerala Ceramics Limited and the Kerala State Salicylates and Chemicals limited. Among these, the Kerala State Salicylates and Chemicals Limited has not started commercial production during the period under review. The value of production and sales turnover of the six other companies have shown overall improvement during 1988-89 as compared to those in the previous year. The total value of goods manufactured by these companies during 1988-89 amounted to Rs. 4175 lakhs as against Rs. 3037 lakhs in 1987-88. Their total sales turnover also increased to Rs. 3971 lakhs from Rs. 2978 lakhs during this period. The Kerala Electrical and Allied Engineering Co. Limited was the only company in the 'KSIE Group' which earned profit during 1988-89. All others were running on loss during this period. The total loss incurred by these five companies amounted to Rs. 732.89 lakhs.

6.18 The main reasons for the poor working results of the subsidiary companies are attributed to lack of adequate working capital, scarcity of essential raw materials, technological obsolescence, marketing constraints and hike in material cost. The efforts made by the Holding Company to mobilise funds, for replenishment of cash loss of its subsidiaries did not succeed as the banks and financial institutions were reluctant to provide working capital due to the poor performance of these companies. The inability of some of these units eg. The Kerala Soaps and Oils Limited in exploiting the price advantage in the purchase of rawmaterials has affected their profitability adversely. In the case of Kerala State Drugs and Pharmaceuticals Limited, undue delay in the realisation of dues outstanding from the State Government has resulted in the blocking up of working funds to the extent of Rs. 350 lakhs. The major reasons for the poor performance of the Travancore Plywood Industries include underutilisation of capacity and non availability of timber. The company has already taken up with the Government the question of allotment of rubber wood and cheaper varieties of timber from the Plantation Corporation of Kerala.

6.19 The KSIE has drawn up rehabilitation packages for all the subsidiary companies which are incurring heavy cash losses. They are in different stages of implementation. The basic feature of all these rehabilitation schemes consist of concessions from financial institutions, replenishment of margin money by the promoters, sharing of capital expenditure and infusion of need based working capital by commercial banks. All the subsidiaries are expected to turn round the corner within a period of five to seven years, provided the rehabilitation schemes drawn up for them are implemented expeditiously and efficiently.

6.20 The Air Cargo operations of the KSIE were substantially higher during 1988-89. The cargo complexes at Trivandrum and Cochin handled 6638 MT of cargo as against 5427 MT in 1987-88. The C & F value of cargo exported during 1988-89 works out to Rs. 2175 lakhs. The earnings of the Company through these operations amounted to Rs. 67.18 lakhs compared to Rs. 63.90 lakhs in 1987-88. But the value of goods disposed off through the sales emporium run by the Company at Trivandrum declined to Rs. 14.31 lakhs in 1988-89 from Rs. 36.19 lakhs in the previous year. This was mainly due to reduced supply of products by the subsidiary companies for disposal. The operations of the Company during 1988-89 resulted in a net profit of Rs. 22,872 as against Rs. 36,128 in 1987-88.

Kerala State Textile Corporation Limited

6.21 The Corporation had the following units under its fold during 1988-89:

1. Malabar Spinning and Weaving Mills, Calicut.
2. Kottayam Textiles, Ettumanoor.

3. Prabhuram Mills, Chengannur.
4. Edarikode Textiles, Malappuram.
5. Kelnit Division, Trivandrum.
6. Kelastic Tape Unit, Trivandrum.
7. Central Testing Laboratory, Trivandrum.
8. Yarn Banks at Cannanore and Trivandrum.

6.22 The first three units, mentioned above, the management of which was vested with this corporation as per the Kerala Sick Textiles Undertakings (Acquisition and Transfer of undertakings) Act of 1985, could not attain the rated capacity utilisation and productivity comparable to industry norms. The heavy underutilisation of installed capacity, poor quality of yarn produced, low productivity of labour and machinery etc. have contributed to the poor working results of these mills in 1988-89. The Edarikode Textiles is a new unit where the normal levels of capacity utilisation and productivity are yet to be achieved. The Kelnit Division and Kelastic Tape Unit have not so far been able to attain

normal levels of productivity due to poor demand for the products. Profitable working of the Corporation thus depends upon redeeming the units under its management from their industrial sickness. Therefore the Corporation has drawn up modernisation schemes for the three sick textile mills under its management with a view to retrieving them from chronic sickness. The scheme for the Kottayam Textiles and Prabhuram Mills are in an advanced stage of implementation. The IDBI has completed the appraisal of the modernisation scheme prepared for the Malabar Spinning and Weaving Mills.

6.23 The total value of yarn and cloth produced by the mills under the management of the Corporation during 1988-89 amounted to Rs. 963 lakhs as against Rs. 572.09 lakhs in the previous year. These mills incurred loss of Rs. 182 lakhs in 1988-89. The working of the Corporation is expected to result in a net loss of Rs. 203.57 lakhs. The consolidated production details of the four textile mills managed by the Corporation for the last four years are furnished in Table 6.3.

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 Limited

Year	Cotton Yarn		Cloth		Total value of Production (Rs. lakhs)
	Production (lakh kg.)	Value (Rs. lakhs)	Production (lakh Mtrs.)	Value (Rs. lakhs)	
(1)	(2)	(3)	(4)	(5)	(6)
1985-86	17.25	588.25	16.35	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	572.09
1988-89	N.A.	N.A.	N.A.	N.A.	963.00

Source: Kerala State Textile Corporation Ltd.

Kerala State Industrial Products Trading Corporation Limited

6.24 This corporation was formed in 1976 in pursuance of the recommendations of the Resource Mobilisation Policy Committee appointed by the State Government. The objective of the Corporation is trading of the products of Government companies and industrial concerns for augmenting the revenue of the State through collection of multi-point sales tax in the place of single point sales tax levied on the sale of products outside the State. During 1988-89, the Corporation sold the products of the Travancore Titanium Products Limited and Travancore Cements Limited. The total sales during this period amounted to Rs. 51.43 crores, of which titanium dioxide accounted for Rs. 50.27 crores and white cement for Rs. 1.16 crores. This Corporation earned a profit of Rs. 11.30 lakhs after providing Rs. 12.58 lakhs for income tax. The Corporation paid Rs. 21.62 lakhs as service charges

and another amount of Rs. 4.09 lakhs as turnover tax to the State Government during this period. The additional revenue gained by the State by way of sales tax as a result of canalisation of sales of monopoly products of Government companies through the Corporation during 1988-89 is estimated at Rs. 862.10 lakhs. In addition to this, the Corporation collected and remitted a sum of Rs. 193.69 lakhs towards Central Sales Tax during 1988-89.

Government Owned Companies

6.25 There were 26 Government owned companies in the manufacturing industries sector of Kerala as on 31-3-1989. Of these, seven companies were under the fold of the Kerala State Industrial Enterprises Limited (KSIE). The Kerala State Engineering Works Limited was under orders of liquidation and the Foam Mattings (India) Limited under lock out. The Steel and Industrial Forgings Limited and the Autokast Limited were being

managed by the Steel Industrials Kerala Limited. Commercial production was not started in the two companies viz. the Kerala Special Refractories Limited and the Kerala Salicylates and Chemicals Limited during 1988-89. Some of the companies in this group, have not finalised their accounts for 1988-89. However, an attempt is made in the following paragraphs to analyse the performance of these companies on the basis of the details available.

6.26 The total capital invested by 19 companies in this group has increased to Rs. 361.56 crores by the end of March, 1989 from Rs. 341.52 crores in March, 1988 registering a growth of 5.87 per cent over the previous year. The Kerala Minerals and Metals Limited alone accounted for 37.48 per cent of the total capital invested by these companies in 1988-89. The total number of persons employed by these companies has also increased from 9206 to 9576 during this period showing a growth of 4.02 per cent. The details relating to capital invested and persons employed are given in Appendix 6.5

6.27 The value of production and sales turnover of 17 companies in this group have improved substantially during 1988-89 as compared to the previous year. They manufactured goods worth Rs. 174.02 crores during 1988-89. The Kerala Minerals and Metals Limited and Malabar Cements Limited accounted for 58.19 per cent of the total value of goods produced by these 17 companies in 1988-89. The total value of production of these 17 companies registered a growth of 46.40 per cent over the previous year's level of Rs. 118.87 crores. Similarly the sales turnover has increased to Rs. 175.71 crores in 1988-89 from Rs. 136.51 crores in 1987-88, a growth rate of 28.72 per cent. The performance of these companies in terms of value of production and sales turnover during 1987-88 and 1988-89 is shown in Appendix 6.6

6.28 The Kerala Electrical and Allied Engineering Company Limited, Malabar Cements Limited, Kerala Agro Machinery Corporation Limited and Kerala Clays and Ceramic Products Limited were working on profit during 1988-89. All other companies in this group were incurring loss during this period. As mentioned earlier, the major reasons for the poor performance of the subsidiary companies of KSIE Limited were shortage of working capital and essential raw materials, marketing constraints, obsolescence of machinery etc. The working of the Steel Industrials Kerala Limited was affected by low capacity utilisation in their ship breaking units due to non-availability of ships for breaking. However, the company could revive the operations of the Foundry unit at Ottappalam and the General Engineering Workshop at Thuravoor which are showing steady progress. The performance of the Steel and Industrial Forgings Limited was also affected by shortage of raw-materials and working capital during 1988-89.

6.29 Non availability of good quality raw sand from the existing mining area continued to affect the operations of the mineral separation plant of the Kerala Minerals and Metals Limited. The Company could, however, bring down the net loss to

Rs. 96.35 lakhs in 1988-89 from Rs. 1647.06 lakhs in 1987-88. This was achieved through a higher turnover to the extent of 76 per cent over the previous year and an increase of 34.8 per cent in the production of titanium dioxide pigment during this period. In spite of the problems with regard to availability of raw materials being confronted by it, the Malabar Cements Limited could earn a profit of Rs. 250 lakhs during 1988-89. The Sitaram Textiles Limited have already scrapped their weaving operations as suggested by the South India Textiles Research Association who have conducted a study on the operations of this unit. The Company is getting the cloth woven through powerloom centres in and around Trichur district. The company has produced 6.12 lakh kg. of yarn during 1988-89 as compared to 3.37 lakh kg. of yarn in 1987-88. Though the value of production and sales turnover of the Trivandrum Spinning Mills Limited have improved during 1988-89, it could not earn profit during this period due to various reasons. Problems like power failure and frequent repairs to the out-moded machinery adversely affected the working of this company. Moreover, the raw material cost was on the higher side at 64 per cent against the standard of 55 per cent. The unremunerative price for yarn produced has added to their unsatisfactory working results.

6.30 Though the cost of production has gone up mainly due to the increase in the material cost, the Kerala Agro Machinery Corporation could earn a net profit of Rs. 129.05 lakhs during 1988-89 as against Rs. 99.19 lakhs in the previous year. The capacity utilisation of this company reached a level of 84.17 per cent in 1988-89 as against 70 per cent in the previous year. The Company has been awarded, in August, 1989, the second position among medium scale industries in the Productivity Award Competition for the year 1987-88 conducted by the Kerala State Productivity Council. The Scooters Kerala achieved an all time high turnover of Rs. 66 lakhs in 1988-89 against the previous highest of Rs. 39 lakhs in 1986-87. The delay in the realisation of dues from Government departments has adversely affected the working capital position of the company. However it could bring down its loss, through higher turnover. The non-availability of raw material (timber species of rosewood and teak) has badly affected the performance of the Kerala State Wood Industries Limited. The details relating to capacity utilisation in the Government owned companies are furnished in Appendix 6.7

Government Majority Companies

6.31 The State Government was holding the majority shares in the paid up capital of 22 manufacturing industrial undertakings in 1988-89. They included ten subsidiary companies of three Government owned corporations. The Kerala State Electronics Development Corporation Limited was managing eight Government majority companies viz., Keltron Counters Limited, Keltron Electro Ceramics Limited, Keltron Crystals Limited, Keltron Magnetics Limited, Keltron Power Devices Limited, Keltron Resistors Limited, Keltron Rectifiers Limited and Keltron Component Complex Limited.

The other two subsidiary companies are the Steel Complex Limited and Sidkel Televisions Limited managed by the Kerala State Industrial Development Corporation Limited and Kerala State Small Industries Development Corporation respectively. The annual accounts of some of the companies in this group for the year 1988-89 have not been finalised. However, an analysis of the performance of this group of companies has been attempted in the following paragraphs on the basis of available details.

6.32 The total capital invested by the 22 companies in this group rose to Rs. 135.90 crores by the end of March, 1989 registering a growth of 24.37 per cent over the previous year's level of Rs. 109.27 crores. The Transformers and Electricals Kerala and Traco Cable Company accounted for over 50 per cent of the total capital invested by this group as on 31-3-1989. The total number of persons employed by these companies as on 31-3-1989 showed a marginal decrease over the previous year's level. It has come down to 8710 in March 1989 from 8799 in the previous year. The details on capital invested and persons employed in the Government majority companies, as at the end of March 1988 and 1989 are furnished in Appendix 6.8

6.33 Both the value of production and sales turnover of 20 companies, details of which are available, have improved during 1988-89 as compared to those in 1987-88. The value of production increased to Rs. 136.15 crores during 1988-89 from Rs. 130.80 crores in 1987-88 registering a growth of 4.09 per cent over the previous year. Similarly the sales turnover rose to Rs. 164.49 crores in 1988-89, marking a growth of 21.72 per cent over the previous year's level of Rs. 135.13 crores. The Transformers and Electricals Kerala, Steel Complex, Travancore Cochin Chemicals Limited and Travancore Titanium Products whose sales income increased substantially during 1988-89, shared more than 75 per cent of the total turnover of the 20 companies in this group during the year. The details of performance of Government majority companies in terms of their value of production and sales turnover during 1987-88 and 1988-89 are shown in Appendix 6.9.

6.34 Among the twenty companies listed in Appendix 6.9, ten companies viz., the Keltron Counters Limited, Keltron Electro Ceramics Limited, Keltron Crystals Limited, Keltron Magnetics Limited, Keltron Component Complex Limited, Travancore Titanium Products Limited, Travancore Cochin Chemicals Limited, Metal Industries Limited, Travancore Sugars and Chemicals Limited and Forest Industries (Travancore) Limited were working on profit during 1988-89. The production activities of some of the subsidiaries of the Kerala State Electronics Development Corporation were badly affected by shortfall in the supply of raw materials and components by the sub-contractors and ancillary units, lack of dies and tools, glut in markets etc. Total loss incurred by the three subsidiary companies of this Corporation, viz. Keltron Power Devices Limited, Keltron Resistors Limited and Keltron Rectifiers Limited during 1988-89 has been estimated at Rs. 146.40 lakhs.

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6.35 The Travancore Titanium Products Limited has produced 10,702 MT of titanium dioxide against the target of 11,000 MT during 1988-89, as compared to 11,283 MT against a target of 10,000 MT in 1987-88. The shortfall in production during the year was due to the accident that took place in the factory premises in February, 1989 and partial strike by a section of the employees from 10th March, 1989. However, the company could earn a profit of Rs. 1185.13 lakhs before tax against Rs. 902.32 lakhs in 1987-88. The drastic powercut ranging from 60 to 95 per cent and the erratic offtake of chlorine by the major customers during the first four months of the financial year 1988-89 have affected adversely the operations of the Travancore Cochin Chemicals Limited. However, the Company earned a profit of Rs. 256.12 lakhs during the period, before tax, as compared to Rs. 182.43 lakhs in 1987-88. The inadequacy of working capital and increase in operation cost continued to affect the working of the United Electrical Industries adversely during 1988-89. Raw material shortage, power cut etc. have affected the profitability of the Forest Industries (Travancore) Limited during 1988-89. Though the Steel Complex Limited could achieve a higher level of production in 1988-89 compared to that in the previous years, its operational results were not satisfactory in view of the disproportionate increase in the cost of inputs particularly that of steel scrap and steep increase in the power tariff. The working of this company during 1988-89 resulted in a net loss of Rs. 170.88 lakhs. The details relating to the installed capacity and its utilisation in the Government majority companies in the State during 1987-88 and 1988-89 are shown in Appendix 6.10.

Summary of Performance of State Public Sector Industrial Undertakings

6.36 Among the 38 state public sector industrial undertakings, the working results of which are available for 1988-89, fifteen were working on profit during this period. The total profit earned by these fifteen companies amounted to Rs. 20.97 crores. The major contributors to this were the three units in the chemical industries group viz., the Travancore Titanium Products Limited, Travancore Cochin Chemicals Limited and Malabar Cements Limited, which together earned a profit of Rs. 16.92 crores during 1988-89. Five out of ten units in the electronics industries group have earned profits during this period. Twenty three companies incurred loss, during 1988-89, amounting to Rs. 26.74 crores. The total accumulated loss of 29 companies among these 38 units reported, stood at Rs. 248.02 crores at the end of March, 1989. The total paid up capital, investment in terms of gross block and borrowings of these 38 companies have increased during 1988-89 as compared to those in the previous year. Five units in the chemical industries group accounted for more than 58 per cent of the total investment of these companies. The group-wise working results of the 38 companies reported are furnished in Appendix 6.11.

6.37 Certain public sector manufacturing units have been incurring loss continuously for the last few years. The Kerala Soaps and Oils Limited, Kerala State Drugs and Pharmaceuticals Limited, Travancore Plywood Industries Limited and the Kerala Ceramics Limited, the subsidiaries of the Kerala State Industrial Enterprises Limited are some of the companies which have incurred loss during 1988-89 also. The details available, show that the accumulated loss of 23 state public sector industrial units has exceeded their total paid up capital by the end of March, 1989. The total accumulated loss of these 23 companies amounted to Rs. 245.67 crores as on 31-3-1989 against their total paid up capital of Rs. 105.28 crores on that date. The Kerala Minerals and Metals Limited accounted for about 25 per cent of the total accumulated loss of Rs. 245.67 crores at the end of March, 1989. The details of companies the accumulated loss of which as at the end of March, 1989, exceeded their paid up capital are shown in Table 6.4

Table 6.4

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 31-3-1989	Accumulated Loss as on 31-3-1989
(1)	(2)	(3)
<i>Electronics</i>		
(1) Keltron Resistors Limited	139.81	173.37
(2) Keltron Power Devices Limited	410.23	724.98
(3) Keltron Rectifiers Limited	274.36	537.25
(4) Sidkel Televisions Limited	36.00	53.63
(5) Keltron Electro Ceramics Limited	195.00	239.00
<i>KSIE Group</i>		
(6) Kerala Soaps and Oils Limited	186.00	1557.00
(7) Kerala State Drugs and Pharmaceuticals Limited	420.00	1065.06
(8) Travancore Plywood Industries Limited	48.58	417.84
(9) Kerala Ceramics Limited	966.08	1237.62
<i>Chemical</i>		
(10) Malabar Cements Limited	1599.09	1642.51

	(1)	(2)	(3)
(11) Kerala Minerals and Metals Limited		2892.27	6100.96
(12) Trivandrum Rubber Works Limited		354.75	1420.79
<i>Textiles</i>			
(13) Sitaram Textiles Limited		267.00	1438.65
(14) Trivandrum Spinning Mills Limited		184.99	488.39
<i>Electricals and Cables</i>			
(15) United Electrical Industries Limited		240.07	461.82
(16) Transformers and Electricals Kerala Limited		907.54	4487.48
(17) Metropolitan Engineering Company Limited		33.17	278.96
<i>Engineering</i>			
(18) Autokast Limited		760.00	982.75
(19) Steel and Industrial Forgings Limited		295.00	439.00
<i>Ceramics and Refractories</i>			
(20) Chalakudy Refractories Limited		134.47	336.26
(21) Kerala Clays and Ceramic Products Limited		1.84	2.86
<i>Wood based</i>			
(22) Forest Industries (Travancore) Limited		17.71	43.06
(23) Kerala State Wood Industries Limited		170.00	437.76
Total		10527.96	24567.00

Production Loss in State Public Sector Industries

6.38 Problems related with power cut, shortage of rawmaterials and absenteeism in certain State Public Sector Industries during 1988-89 led to loss of employment and production. Eleven companies among those reported, have lost employment amounting to 85,317 mandays resulting in a loss of production estimated at Rs. 16.72 crores during this period. The total number of mandays lost by 14 companies in this category in 1987-88 was 88,332. The production loss during this period had been estimated at Rs. 22.33 crores. The details of mandays lost and the loss of production in the State public sector industries during 1988-89 are given in Table 6.5.

TABLE 6.5

Details of Mandays Lost and Loss of Production in the State Public Sector Manufacturing Companies during 1988-89

Name of Company	Total Number of Mandays Lost	Total Loss of Production (Rs. in lakhs)	Main Reasons
(1)	(3)	(3)	(4)
1. Kerala Soaps and Oils Limited	22189	..	Raw material shortage, maintenance etc
2. Travancore Plywood Industries Limited	48440	230.30	Raw material Shortage
3. Kerala Electrical and Allied Engineering Company Limited	1797	19.00	Power failure, Absentecism, Raw material Shortage etc.
4. Steel Industrials Kerala Limited	Nil	..	..
5. Steel and Industrial Forgings Limited	145	178.00	Absentecism, power failure etc.
6. Kerala Minerals and Metals Limited	421	0.50	Strike
7. Malabar Cements Limited	Nil	..	..
8. Sitaram Textiles Limited	..	..	..
9. Trivandrum Spinning Mills Limited	..	176.89	Absentecism, power failure, rawmaterial Shortage etc.
10. Kerala Agro Machinery Corporation Limited	Nil	Nil	..
11. Scooters Kerala Limited	Nil	Nil	..
12. Kerala Premopipe Factory Limited	Nil	Nil	..
13. Kerala Clays and Ceramic Products Limited	Nil	Nil	..
14. Kerala State Wood Industries Limited	694	0.27	Absentecism, etc.
15. Keltron Counters Limited	..	..	..
16. Keltron Crystals Limited	1246	23.96	Raw material shortage, power shortage.
17. Keltron Magnetics Limited	Nil	Nil	..
18. Keltron Power Devices Limited	Nil	Nil	..
19. Keltron Resistors Limited	24	0.72	Power failure
20. Keltron Rectifiers Limited	Nil	Nil	..
21. Keltron Component Complex Limited	Nil	Nil	..
22. Sidkel Televisions Limited	..	277.72	Shortage of rawmaterials.
23. Steel Complex Limited	13460	369.36	Power shortage, Band h etc.
24. Metal Industries Limited	..	12.80	Power shortage.
25. Travancore Titanium Products Limited	NA	NA	..
26. Travancore Cochin Chemicals Limited	Nil	Nil	..
27. Travancore Cements Limited	12384	314.96	Powercut, Maintenance etc.
28. United Electrical Industries Limited	14517	67.15	Power failure etc.
29. Transformers and Electricals Kerala Limited	Nil	Nil	..
30. Chalakudy Refractories Limited	Nil	Nil	..
31. Travancore Sugars and Chemicals Limited	Nil	Nil	..
32. Forest Industries (Travancore) Limited	Nil	Nil	..
Total	85317	1671.63	..

Central Sector Investment in Kerala

6.39 The Central Sector industrial investment in terms of gross block in the public sector in the State has increased to Rs. 1307 crores by the end of March, 1988 accounting for 1.59 per cent of the total Central sector investment of Rs. 82,150 crores in the Country. The State received only 1.65 per cent of the total additional investment of Rs. 14,091 crores made by the

Central Government during 1987-88. The percentage share of the State in the Central sector investment remained around 1.6 per cent for the last three years. The declining trend in the percentage share of the State in Central investment has been noticed since 1974-75. It came down to 1.59 per cent in March, 1988 over the past 13 years. The data relating to the Central sector 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

(Investment in Rs. crores)

Year (1)	Investment (Gross Block) as on 31st March		Percentage of Column (3) to Column(2) (4)
	All India (2)	Kerala (3)	
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	68119	1074	1.58
1988	82150	1307	1.59

Sources: 1. Bureau of Public Enterprises, Government of India
2. Centre for Monitoring Indian Economy

6.40 The State-wise distribution of the Central sector investment in the Country as on 31-3-1988 shows that the States like Andhra Pradesh, Gujarat, Madhya Pradesh, Maharashtra and Tamil Nadu had been receiving the major chunk of this investment in the past few years. These states received a total amount of Rs. 8281 crores during 1987-88 accounting for more than 59 per cent of the total investment made by the Central Government in the industries sector in the Country during this period. The Central investment in Uttar Pradesh was Rs. 2200 crores during 1987-88, while Kerala received only Rs. 233 crores during this period. The state-wise distribution of Central Sector investment as at the end of March, 1987 and 1988 is given in Appendix 6.12.

6.41 Eighteen Central Public Sector industrial undertakings including five textile mills managed by National Textile Corporation were functioning in Kerala during 1988-89. They were:

- (1) Cochin Refineries Limited, Cochin.
- (2) Cochin Shipyard Limited, Cochin.
- (3) Hindustan Latex Limited, Trivandrum.
- (4) Fertilisers and Chemicals, Travancore Limited, Ernakulam.

- (5) Hindustan Newsprint Limited, Kottayam.
- (6) Indian Rare Earths Limited, Alwaye and Chavara.
- (7) Indian Telephone Industries Limited, Palghat.
- (8) Instrumentation Limited, Palghat.
- (9) Hindustan Insecticides Limited, Alwaye.
- (10) Modern Food Industries (India) Limited, Cochin.
- (11) H. M. T. Limited, Kalamassery, Cochin.
- (12) Balmer Lawrie and Company Limited, Aroor.
- (13) Hindustan Organic Chemicals Limited, Cochin.

Units under National Textile Corporation

- (14) Cannanore Spinning and Weaving Mills, Cannanore.
- (15) Vijayamohini Mills, Trivandrum.
- (16) Parvathy Mills, Quilon.
- (17) Alagappa Textiles (Cochin) Mills, Trichur.
- (18) Kerala Lakshmi Mills, Trichur.

6.42 The details regarding the performance for the year 1988-89 have not been received so far from four companies among those mentioned above. The details available show that the 18 central sector concerns working in the State have provided regular employment to more than 26000 persons during 1988-89. The major employer in this group was the Fertilisers and Chemicals Travancore Limited which employed 8483 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 6.13 to 6.16.

6.43 According to the details available, four companies, out of the above, lost 61,986 mandays during 1988-89 due to various reasons such as lock out, powercut, absenteeism etc. The loss of production on account of this has been estimated at Rs. 4.26 crores. The cause-wise details of mandays lost and loss of production in these companies are shown in Table 6.7.

Table 6.7

Details of Mandays Lost and Production Loss in the Government of India Companies in Kerala during 1988-89

Name of Company	Mandays Lost (Nos.)	Loss of Production (Rs. in akhs)	Main Reasons
(1)	(2)	(3)	(4)
1. Balmer Lawrie and Company Limited	10906	158.00	Lock out
2. Parvathi Mills	8486	31.49	Power cut etc.
3. Cannanore Spinning and Weaving Mills	..	48.67	Absenteeism, power failure
4. Kerala Lakshmi Mills	42594	187.81	Power failure, Absenteeism etc.
Total	61986	425.97	

Industrial Disputes

6.44 According to the provisional data furnished by the Department of Economics and Statistics, there were 67 industrial disputes in the State during 1988, as compared to 98 disputes each in 1986 and 1987. The number of workers affected by these, has also decreased during 1988, to 23,037 in 1988 from 40,119 in 1987 and 1,32,912 in 1986. Similarly, the number of mandays lost on account of this came down to 13.57 lakhs in 1988 from 20.01 lakhs in 1987 and 23.11 lakhs in 1986. The industry-wise details of industrial disputes in the State during 1987 and 1988 are shown in Table 6.8.

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Table 6.8

Industrial Disputes Resulting in Work Stoppages in selected Industries in Kerala during 1987 and 1988

Industry	1987		1988*			
	Number of Disputes	Number of workers Affected	Man days Lost (in thousand)	Number of Disputes	Number of workers Affected (in thousand)	Man days lost (in thousand)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Plantation.	20	14288	122	8	5523	36
2. Textile	8	5659	1253	4	1405	56
3. Coir	3	565	77	1	215	66
4. Sawmill	2	184	3	2	76	10
5. Tiles	8	2330	226	2	162	13
6. Cashew	..	..	..	..	..	..
7. Others	57	17093	320	50	15656	1357
Total	98	40119	2001	67	23037	1538

Sources : Department of Economics and Statistics, Trivandrum

*Provisional

Small Scale Industries

6.45 The performance of small scale industries in the State during 1988-89 was impressive and encouraging. Altogether, 8236 new small scale industrial units were started during the year. The estimated investment by all the units works out to Rs. 113.66 crores. Goods and services worth Rs. 225.67 crores were produced and provided additional employment to 41,180 persons. During the previous year, 6849 new units were started, with a total investment of Rs. 94.41 crores, produced goods and services worth Rs. 187.44 crores and provided employment opportunities for 38,245 persons. Thus during 1988-89 there was 20.25 per cent increase in respect of number of units, 20.39 per cent each in amount invested and value of goods produced and 7.67 per cent in employment generation. The district-wise distribution of newly started small scale industrial units shows that about 15 per cent of the total units have been registered in Ernakulam District, followed by Trivandrum District with 13 per cent. In the case of investment made, value of goods and services produced and employment generated, these two districts continue to maintain their top position. Appendix 6.17 provides the district-wise information on new small scale industrial units registered in Kerala during 1988-89.

6.46 The total number of small scale industrial units in the State at the end of 1988-89 was 55,427. Aggregate investment made by all these units works out to Rs. 659.59 crores, while the value of goods and services produced is estimated

to be of the order of Rs. 1723.78 crores. It is also estimated that these small scale units provide employment to 3.66 lakh persons. In the small scale sector it is seen that the average investment per unit works out to Rs. 1.19 lakhs, average value of goods and services produced per unit per annum Rs. 3.11 lakhs and the average employment provided by one unit 6.61 persons.

6.47 The spatial distribution of small scale industrial units in the State reveals that Ernakulam District stands first with 13.61% of the total number of units followed by Trichur (10.91%), Trivandrum (10.13%) and Cannanore (10.03%). These four districts account for about 45% of the total number of registered small scale units in the State. The district-wise details of small scale units registered in Kerala as on 31-3-1989 are furnished in Appendix 6.18.

6.48 Of the total number of 55427 small scale units, 47,983 (86.57%) are identified to be working properly and others are either sick or closed down. Palghat District has the highest percentage of working units followed by Quilon, Kozhikode and Alleppey. It is seen that Trivandrum District has the lowest percentage of working units, as about one fifth of the units started in the district are sick or closed. The information on working status of small scale industrial units in Kerala as on 31-3-1989 is furnished in Appendix 6.19.

6.49 The Small Industries Development Corporation (SIDCO) is set up to promote small scale industries in the State. Procurement and distribution of scarce raw materials, development and administration of industrial estates, management of production units and services centres, marketing of small scale industrial products, etc., are the major activities undertaken by the Corporation. The total turnover of the Corporation during 1988-89 was Rs. 2200.42 lakhs as against Rs. 1800.07 lakhs in the previous year, registering an increase of 22 per cent. However, the net loss incurred by the Corporation during 1988-89 increased to Rs. 78.79 lakhs from Rs. 71.64 lakhs during 1987-88.

6.50 The major items of raw materials distributed to small scale units include iron and steel, coal, coke, paraffin wax, titanium dioxide, IPCL products etc. The quantity of the above items handled during 1988-89 was 13480 tonnes as against 17606 tonnes during the previous year. Though there was a decline of 23 percent in terms of quantity, the value of raw materials has gone up from Rs. 1605.00 lakhs in 1987-88 to Rs. 2061.00 lakhs in 1988-89, registering an increase of 28 percent. This was mainly because of rise in unit cost of iron and steel and increase in the quantity of materials distributed for bus body building. During the year 2936 small scale industrial units have been assisted in procurement of raw materials, whereas the number of assisted units in the previous year was 2865.

6.51 Import of foreign timber and distribution of automobile spare parts were the two new activities taken up by the Corporation. The results of these activities were not encouraging. The marketing of iron and steel is one of the major

items which causes substantial loss to the Corporation due to non revision of rebate and increase in transportation, handling and administrative expenses. But marketing of other items such as paraffin wax, titanium dioxide and IPCL products fetch the normal return as the selling prices are determined keeping in view the costs involved.

6.52 The formation of a consortium for bus body building was another promotional activity taken up during 1987-88. 17 small scale industrial units including two units of the Corporation are members of the consortium. It was able to build bus body for 161 chassis during 1988-89, whereas the achievement during the initial year was 96. The employment generated through the scheme is estimated to be 48,300 man days. Besides, an amount of Rs. 61.82 lakhs has been realised by way of sales tax, purchase tax, excise duty etc. Over and above this a substantial amount has been received by the Corporation as service charges for chassis allotted to bus body building units other than the units managed by the Corporation.

6.53 There are 12 production units under the management of the Corporation. The units are engaged in the manufacture of different goods such as tiles, survey instruments, wooden furniture, dies, moulds, ceiling fans and bus body building and stitching of uniforms for defence personnel. The working details of the units are given in Appendix 6.20.

6.54 An analysis of the working details of the units reveals that the annual fixed costs works out to 132 percent of the fixed assets. Altogether 726 personnel comprising 552 workers and 144 staff members are working in the units. In other words, the ratio of staff to workers works out to 1:4. This shows that the proportion of staff in these units is very much on the high side and seems to be one of the major reasons or perhaps the single reason for the persistent loss sustained by the Corporation. The average investment per worker is above Rs. 17,000 whereas the turn over is about Rs. 42,000. Almost all the units, except the wood workshop at Calicut, were running on loss. The net loss incurred per worker per annum is estimated at Rs. 10,000. The total loss of all the units during 1988-89 was Rs. 56.60 lakhs which constitutes about 72 per cent of the net loss of the Corporation. Out of the various units, only the wood workshop at Calicut has attained the break even point of production. Use of obsolete and outdated machinery and equipment, inadequacy of sufficient orders, lack of liaison between the production units and consumer agencies, lack of modernisation and diversification of production lines etc., are the reasons attributed for the loss. Over and above, the overhead expenditure of the units are on the high side. In short, absence of efficient management is the cause of the loss sustained by these production units.

6.55 The value of small scale products marketed through the emporia operated by the Corporation has increased from Rs. 66.79 lakhs in 1987-88 to Rs. 97.89 lakhs in 1988-89. However, the number of small scale industrial units benefited by the programme was only 30, which seems to be meagre by considering the total number of units in the State.

6.56 17 major industrial estates and 36 mini industrial estates were also functioning under the management of the Corporation. Altogether 924 worksheds are available in the estates, of which 16 were lying vacant during 1988-89. Among 652 small scale industrial units accommodated in the estates 89 units (13.65 percent) were closed for various reasons.

6.57 The Small Industries Service Institute, Trichur, is the field agency of Small Industries Development Organisation, Government of India. The institute provides technical and managerial services to small scale entrepreneurs in the State. It undertakes promotional and developmental activities of small scale industries, through the main office and the extension centres at Alleppey, Shoranur, Calicut and footwear service centre, central workshop and fruit preservation training centre at Trichur. The institute and its extension centres provide a wide range of technical consultancy services and organize technoeconomic surveys, prospect and feasibility studies, market surveys etc. Besides, programmes such as industrial management and training, entrepreneurship development training etc., are also arranged by the institute.

6.58 The Directorate of Production Centre at Ettumanoor is another agency of the Small Industries Development Organisation. It has sub-centres at Ettumanoor, Attingal, Thiruvalla and Muvattupuzha. These centres provide technical training in the fields of mechanic and hand tools, electric motors, aluminium and stainless steel utensils, tin cans and tin printing etc. Besides, the field testing laboratory at Changanacherry fulfils the testing requirements of small scale units in rubber based industries.

Kerala Financial Corporation

6.59 The Kerala Financial Corporation is a public sector financial institution which provides long term loans to small and medium scale industries in the State. The Corporation received 2145 applications for an aggregate loan amount of Rs. 7453.74 lakhs during 1988-89. This showed an increase of 51% in number of applications and 28% in respect of the amount of loan applied for over those of the previous year. The gross loan sanctioned by the Corporation rose from Rs. 4063.44 lakhs for 1033 industrial units in 1987-88 to Rs. 6676.33 lakhs for 1556 units in 1988-89, representing an increase of 64 percent in the case of amount sanctioned and 51 percent in number of units. The disbursement of loans increased from Rs. 3397.75 lakhs for 979 industrial units during the previous year to Rs. 4147.44 lakhs for 1223 units during the year under review. In terms of amount disbursed this represented 25 percent increase over the previous year, while the number of units involved increased by 22 percent. The loan disbursed by the Corporation as at the end of March 1989 aggregated Rs. 21166.82 lakhs for 9192 beneficiaries. The summary statement showing the operations of the Corporation is given in appendix 6.21.

6.60 The industrially backward areas in the State consist of eight districts, namely; Idukki, Wayanad, (Category A), Alleppey, Malappuram,

Cannanore, Kasaragod (Category B), Trivandrum and Trichur (Category C). Top priority has been given by the Corporation both in sanction and disbursement of loans for industrial units started in the above districts. Of the total amount of Rs. 6676.33 lakhs sanctioned for 1556 units during 1988-89, an amount of Rs. 2779.34 lakhs (42 percent) for 745 units (48 percent) was sanctioned to industrial units in backward districts. Against the disbursement of Rs. 4147.44 lakhs for 1223 units, an amount of Rs. 1889.40 lakhs (46 percent) was given for 603 units (49 percent) in the backward areas. Since its inception, the Corporation had sanctioned 4574 loan applications (46 per cent) amounting to Rs. 13966.98 lakhs (49 per cent) to industrially backward areas. The disbursement comes to Rs. 10597.53 lakhs (50 per cent) benefitting 4156 units (45 per cent). The details of district-wise sanction and disbursement of loans upto 31st March, 1989 are given in appendix 6.22.

6.61 The major share of loan assistance by the Corporation during 1988-89 as in the previous years has gone to the small scale sector. The amount of effective sanction to the sector during the year works out to Rs. 4060.75 lakhs (62 percent) for 920 small scale units (61 percent), as against the total effective sanction of Rs. 6549.27 lakhs for 1519 units. Likewise the amount disbursed to the sector during the year was Rs. 2885.62 lakhs (70 per cent) for 734 small scale units (60 percent) whereas the aggregate disbursement was Rs. 4147.44 lakhs for a total number of 1223 units. The cumulative amount of loan sanctioned (net) since the beginning to small scale industries was Rs. 19980.84 lakhs at the end of March 1989, as against the total sanction of Rs. 27991.22 lakhs to all units. The disbursement of loans to small scale industries amounted to Rs. 16064.89 lakhs out of the total disbursement of Rs. 21166.82 lakhs. This means 71 percent of the total amount sanctioned and 76 percent of the total amount disbursed since the beginning was to small scale industries. The details of industry-wise classification of loans sanctioned and disbursed to small scale sector by the Corporation since its inception are furnished in appendix 6.23.

6.62 In order to provide relief to beneficiaries, the Corporation made a major change in the lending rate structure with effect from January 1, 1989. According to the practice followed earlier, gross rate of interest was charged for the outstanding amount of loan, with a rebate for prompt repayment. As a result, those who promptly repaid used to get charged at the effective rate while the defaulters used to be charged at gross rate on the balance outstanding. As per the changed structure, only effective rate on the balance of loan outstanding is payable by all the parties. However, in the case of defaulters an additional interest of 2 percent, over the effective rate on the defaulted amount on compounded basis have to be paid. The schemes such as concessional rate of interest at 2.5 percent for loans availed of by Scheduled Caste and Scheduled Tribe entrepreneurs for starting new industrial units and interest subsidy at the rate of 3.5 per cent for units with loans below Rs. 5 lakhs, and those who are prompt in repayment, continued during the year.

6.63 The Corporation continued its efforts to collect the overdue. The total arrears amounted to Rs. 9152 lakhs including an amount of Rs. 4907 lakhs that fell due during the year under review. An amount of Rs. 2501 lakhs was realised as arrears during 1988-89 as against the collection of Rs. 1760 lakhs during the previous year. The total amount of arrears at the end of the year was Rs. 6651 lakhs which constituted about 32 per cent of the loan disbursed by the end of March, 1989.

6.64 The paid up share capital of the Corporation rose to Rs. 1860.415 lakhs at the end of March, 1989, registering an increase of 27 per cent over that at the end of the previous year. 49.34 per cent each of the share value of the Corporation is held by the State Government and the Industrial Development Bank of India, while the remaining 1.32 per cent is owned by scheduled banks, insurance companies etc.

Kerala Industrial Technical Consultancy Organisation

6.65 The Kerala Industrial and Technical Consultancy Organisation (KITCO) is a professional body set by the Industrial Development Bank of India, for promoting large, medium and small scale industries. The turn over of the Organisation during 1988-89 was Rs. 23.14 lakhs, as against Rs. 37.14 lakhs in 1987-88. The reason attributed to the decline in turn over is due to the change in accounting year to coincide with the financial year ending on 31st March, instead of 30th June. The operations of the Organisation include preparation of project reports, appraisal reports, rehabilitation and diagnostic studies, monitoring of project implementation, modernisation of industries, engineering and other consultancy services.

6.66 During the period under review, the Organisation completed 117 project reports involving a total investment of Rs. 10.37 crores, prepared 7 appraisal reports involving a total investment of Rs. 2.42 crores and employment potential of 150 persons, carried out 7 rehabilitation and diagnostic studies, conducted a study for modernisation of rubber industry at Kottayam, prepared detailed project profiles for Kerala State Industrial Development Corporation for setting up 12 medium and small scale rubber based industrial units, completed a technology profile study, started a utilisation study of the units assisted by banks and refinanced by National Bank for Agriculture and Rural Development, arranged market surveys on ribbon and tapes, microwave ovens etc. Besides, the consultancy services on engineering, electrical and construction works undertaken by the Organisation for agencies such as Hindustan Latex, Marine Products Export Development Authority, Air India, Kerala State Co-operative Coir Marketing Federation and Kerala State Coir Corporation were in progress as planned. In addition, the Organisation completed 15 entrepreneurship development programmes, and 6 programmes were in progress. These programmes were sponsored by the Department of Industries and Commerce, Industrial Develop-

ment Bank of India, Kerala Financial Corporation etc. These achievements relate to a period of 9 months because of the change over to the new accounting year.

Handicrafts

6.67 The Handicrafts Development Corporation of Kerala is the nodal agency for promotion and development of handicrafts industry in the State. Procurement and distribution of raw materials and marketing of finished products are the main activities of the Corporation. During 1988-89, the Corporation has procured raw materials such as sandalwood, rosewood etc., valued at Rs. 4.09 lakhs and distributed the above items worth Rs. 3.28 lakhs to handicrafts artisans. The total sale proceeds of the Corporation has increased from Rs. 244.92 lakhs in 1987-88 to Rs. 282.21 lakhs in 1988-89, registering an increase of about 15 per cent over the previous year. The performance in the export of handicrafts was also encouraging as the value of exports rose by 21 per cent from Rs. 16.37 lakhs in 1987-88 to Rs. 19.83 lakhs in 1988-89. The good performance in turn over combined with effective and optimum utilisation of available resources enabled the Corporation to earn a nominal profit of Rs. 1.37 lakhs during 1988-89, after adjusting depreciation and financial charges. The Corporation has the credit of making profit during the last three years consecutively.

6.68 The paid up capital of the Corporation was Rs. 152.24 lakhs at the end of March, 1989 as against Rs. 148.24 lakhs at the end of March, 1988. The Central and State Governments are the share holders of the Corporation. The activities of the Corporation enabled 2651 artisans to get gainful employment. Besides 2750 artisans were assisted by way of purchasing items produced by them. Thus the overall performance of the Corporation during 1988-89 was satisfactory.

Bamboo Industry

6.69 The Kerala State Bamboo Corporation Limited is the sole agency engaged in the promotion and development of bamboo industry in the State. The procurement and distribution of bamboo reeds to traditional workers and collection and sale of mats produced by them are the main functions of the Corporation. The manufacturing and marketing of resin bounded bamboo boards is another activity recently started.

6.70 The Corporation has collected and distributed 120 lakh reeds valued at Rs. 137 lakhs during 1988-89, as against 124.20 lakh reeds valued at Rs. 137 lakhs during the previous year. Mats procured and sold during the year was 695 lakhs sq. ft. worth Rs. 161 lakhs, compared to 629 lakh sq. ft. worth Rs. 174 lakhs during the previous year. Bamboo boards manufactured was 3.29 lakh sq. ft. worth Rs. 23.20 lakhs and the effective sale was 2.18 sq. ft. for Rs. 11.76 lakhs. Thus the total turn over of

the Corporation during 1988-89 was Rs. 370 lakhs, registering an increase of 16 per cent over Rs. 318 lakhs during the previous year. The loss incurred during the year was Rs. 32.68 lakhs, taking the accumulated loss to Rs. 120.16 lakhs as at the end of March 1989. However, it was able to provide employment to 15,000 weaver families, 2500 reed cutters and 1000 other workers, mostly belonging to the weaker sections.

Khadi and Village Industries

6.71 During the year 1988-89 the Khadi and Village Industries Board has registered 25 co-operative societies raising the total number of co-operatives under its control to 1997. At the end of March 1989 there were 364 direct production and sales centres under the Board. During the year under report the Board could provide employment to 1.79 lakh persons through its various production centres, registered institutions and co-operative societies as against 1.74 lakhs in the previous year. An amount of Rs. 19.50 crores was paid as wages to the workers during the year compared to Rs. 21.32 crores in 1987-88. During 1988-89 the administrative expenditure of the Board was Rs. 313.75 lakhs. An amount of Rs. 42.44 lakhs was paid as special rebate under khadi programme during the year. The value of production of khadi cloth increased from Rs. 246.50 lakhs in 1987-88 to Rs. 360.31 lakhs in 1988-89. The sales value also recorded an increase of 27.5 per cent during the year to Rs. 510.98 lakhs compared to previous year's Rs. 400.85 lakhs. The value of production of village industries increased from Rs. 46.03 crores in 1987-88 to Rs. 51.66 crores in 1988-89. The sales turn over during the period was Rs. 53.86 crores as against Rs. 48.51 crores in 1987-88. The performance of Khadi and Village Industries in summary form is given in Table 6.9. Detailed performance indicators are given in Appendix 6.24.

Table 6.9

Khadi and Village Industries Performance During 1988-89

Particulars	1987-88	1988-89	Increase over Previous Year (%)
(1)	(2)	(3)	(4)
1. Khadi			
Production (Rs. lakhs)	246.50	360.31	46.2
Sales (Rs. lakhs)	400.85	510.98	27.5
Employment (Nos) (including part time & casual)	14000	16449	17.5
Wages paid (Rs. in lakhs)	109.89	327.21	197.8
2. Village Industries			
Production (Rs. lakhs)	4602.60	5166.18	12.2
Sales (Rs. lakhs)	4851.48	5385.61	11.0
Employment (Nos.) (including part time and casual)	159,647	162808	2.0
Wages Paid (Rs. lakhs)	2022.11	1622.49	-19.8

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	(1)	(2)	(3)	(4)
3. Total Khadi and Village Industries				
Production (Rs. lakhs)		4849.10	5526.49	14.0
Sales		5252.33	5896.59	12.3
Employment (Nos) (including part time and casual)		173647	179257	3.2
Wages Paid (Rs. lakhs)		2132.00	1949.70	-8.6

Source: Kerala Khadi and Village Industries Board.

Coir Industry

6.72 In terms of the number of persons employed, coir industry is the largest traditional industry in Kerala. It provides employment to about 4.3 lakhs people, majority of whom belong to weaker sections of the society. 75 per cent of coir workers are women.

6.73 The co-operativisation programme is being implemented in the State as an important measure for revitalising coir industry. There were 829 Coir Co-operative Societies in Kerala, as on 31-3-1989 as against 825 societies at the end of 1987-88, consisting of 769 Primary Coir Co-operative Societies, 50 Manufacturing Societies, 7 Small Scale Producer's Co-operative Societies, 3 Husk Procurement and Distribution Societies and one Fibre Society. Of the 4 newly formed societies 3 were manufacturing societies, which have not started working. Two primary coir co-operative societies and one manufacturing society which were working during 1987-88, became dormant in 1988-89. The Apex organisation viz; The Kerala State Co-operative Coir Marketing Federation (COIRFED) is undertaking the marketing of coir and coir products manufactured in the co-operative sector. While the number of dormant societies increased, the number of societies under liquidation remained unaltered. This points to the need for expediting the process of liquidation of the societies, action for which is long pending. At the same time viable societies should be strengthened without delay.

6.74 During the year 1988-89 the primary coir co-operatives purchased 1341 lakh husks valued at Rs. 273.00 lakhs. There was only a marginal increase in the quantity of husk purchased during the year compared to 1338 lakh husks valued at Rs. 247.00 lakhs purchased during the previous year. During the year 77,000 workers in the primary societies and 1998 workers in the manufacturing societies were benefited. While the number of workers in primary societies increased by 4000 compared to the previous year, the number of workers in manufacturing societies decreased marginally by 165 over the previous year. Production of coir and coir products in the co-operative sector was 12023 tonnes valued at Rs. 1293.00 lakhs. There was only 0.4 per

cent increase in the quantity of production compared to the previous year's production of 11972 tonnes, while in value terms there was an increase of 8.3 per cent over the previous year's value of production of 1193.77 lakhs, thanks to price increase.

6.75 The quantity of coir and coir products exported from India declined by 167.9 tonnes during 1988-89 to 24979.2 tonnes over the previous year's export of 25147.1 tonnes. The fall in the quantity exported was mainly in respect of coir yarn and mattings. The export earnings realised, however, recorded an increase of 3.5 per cent at Rs. 3332.13 lakhs, over the previous year's export value of Rs. 3219.74 lakhs.

6.76 In order to increase the sale of coir and coir products, Government continued to give 20 per cent rebate for 90 days during 1988-89 also. The introduction of rebate has enabled the co-operative sector to expand its markets, popularise coir and coir products among the middle and lower strata of society and liquidate its huge accumulated stock.

6.77 The availability of husk at reasonable price to the co-operative sector has increased with the implementation of three point levy system since May 1988. But still the full requirement could not be met through procurement under the levy system.

6.78 Non availability of adequate quantity of husk at reasonable price, inadequacy of working capital with the coir co-operative societies, decline in export market, accumulation of unsold stock due to periodical slump in the market etc., continued to be the major problems facing the industry.

6.79 The details regarding the working of different types of societies are given in Appendix tables 6.25 to 6.27.

Handloom Industry

6.80 Production of handloom cloth in the State during 1988-89 is estimated to be 104.86 million metres, valued at Rs. 69.82 crores. 57 per cent of the production was contributed by the co-operative sector, while the corporate sector and private sector produced 3 per cent and 40 per cent respectively. The effective coverage of looms by the co-operative sector increased from 39,200 in 1987-88 to 41,400 during 1988-89. There were 590 handloom weavers' co-operative societies in the State at the end of 1988-89. During the year, 165 Chitharanjan looms have been distributed to various societies. Production of handloom cloth in the co-operative sector during 1988-89 was 59.91 million metres valued at Rs. 41.90 crores, recording an increase of 12.5 per cent in quantity and 29 per cent in value, compared to 53.25 million metres valued at Rs. 32.50 crores in the previous year. The sale of handloom cloth in the co-operative sector during the year was about 12.5 per cent higher both in quantity and value at 58.55 million metres

valued at Rs. 37.10 crores, compared to 52.05 million metres valued at Rs. 33.00 crores in the previous year.

6.81 The number of looms in the corporate sector increased by 614 during 1988-89, to 6984 as on 31-3-1989 from 6370 at the end of 1987-88. Production of handloom cloth in the corporate sector during 1988-89 was 2.95 million metres valued at Rs. 2.42 crores, which showed an increase of 15.7 per cent in quantity and 4.8 per cent in value over the production of 2.55 million metres of cloth valued at Rs. 2.31 crores during the previous year. The sales value of handloom cloth in the corporate sector during 1988-89 was Rs. 2.90 crores.

6.82 The number of looms in the unorganised sector decreased by 2.7 per cent during the year to 29,316 compared to 30,130 at the end of the previous year. The production of handloom cloth in this sector during 1988-89 was 42 million metres valued at Rs. 25.50 crores.

6.83 The total budget provision (Plan and Non-Plan) for the handloom industry for the year 1988-89 was Rs. 1073.45 lakhs. The expenditure was Rs. 1033.16 lakhs or 96.2 per cent of the budget provision. Special provisions were made in the budget under Special Component Plan (S. C. P.) and Tribal Sub Plan (T. S. P.) for the welfare of Scheduled Caste and Scheduled Tribe weavers. Entire provisions of Rs. 46 lakhs under S. C. P. and Rs. 7.86 lakhs under T. S. P. have been spent. During the year 290 persons (250 S. C. and 40 S. T.) were given training in handloom weaving. An amount of Rs. 463 lakhs was disbursed as rebate during the year which included the central share of Rs. 120 lakhs. The value of unsold stock in the co-operative sector increased to Rs. 28 crores at the end of 1988-89, from Rs. 26 crores at the end of the previous year. The value of unsold stock with the Handloom Development Corporation, however declined from Rs. 2.65 lakhs at the end of 1987-88 to Rs. 2 lakhs at the end of 1988-89. The details regarding production, productivity, value of unsold stock etc., are furnished in Appendix 6.28.

6.84 The Kerala State Handloom Weavers' Apex Society (HANTEK) with 389 members, had a paid up capital of Rs. 342.02 lakhs as on 30-6-1989, against the authorised share capital of Rs. 500 lakhs. The State Government has invested Rs. 327.02 lakhs as share capital in this apex society. The working capital of the society as on 30-6-1989 amounted to Rs. 14.10 crores. During the year under review the apex society has purchased yarn worth Rs. 87 lakhs and distributed yarn worth Rs. 94 lakhs to primary societies. It has procured handloom cloth worth Rs. 6.18 crores from primary societies. The sales turn over of Hantek during 1988-89 was Rs. 8.35 crores, which was less by 16.5 per cent compared to the previous year's sales turnover of Rs. 10 crores. The working results of the Handloom Apex Society are furnished in Appendix 6.29.

6.85 The Kerala State Handloom Development Corporation with a paid up capital of Rs. 202.14 lakhs at the end of 1988-89 covered 6984 looms. During the year the Corporation produced handloom goods worth Rs. 242.45 lakhs and sold goods worth Rs. 290 lakhs. The working results of the Corporation, are furnished in Appendix 6.30.

6.86 The Corporation has a subsidiary company by name Kerala Garments Ltd., with an installed capacity to manufacture 3 lakh shirts per annum. During the year ended 30-9-1988, the company has produced 1.12 lakh pieces of garments, besides small items like bed sheets, pillow covers etc. and realised Rs. 25.42 lakhs as stitching charges. During 1988-89, the sales turnover of the company was Rs. 2.16 lakhs. The net loss of the Company as per provisional accounts was Rs. 8.22 lakhs. The working of the company continued to be much below the installed capacity, resulting in sustained losses.

6.87 The main problems confronting handloom industry are lack of working capital, non-availability of raw materials, price fluctuations and low sales turnover due to competition from the mill sector.

6.88 All the production units in the organised sector viz., co-operative societies and the Handloom Development Corporation including its subsidiary 'Kerala Garments Ltd.,' are working on loss, with the result, these organisations experience difficulty in getting working capital loan from financial institutions. This situation results in further production loss and these organisations with huge over head costs suffer further loss, culminating in a vicious circle. The solution to this problem lies in making the working of these institutions efficient by increasing productivity and earning profit.

6.89 The details regarding looms, production and productivity in powerloom sector are furnished in Appendix—6.31.

Cashew Industry

6.90 Cashew industry is mainly in the factory sector, but it is considered as traditional mainly because of the low level of technology involved in the processing of cashewnut. The contribution of labour in the value added in processing of raw nuts is 60 to 65 per cent. This industry has assumed importance because more than one lakh persons, mostly women are employed in it.

6.91 There were 274 cashew factories in the State as at the end of December 1988, employing 1.11 lakh persons which shows an increase of 10 factories and 4000 labourers over those at the end of the previous year. Cashew industry accounted for only 2.2 per cent of the total number of registered factories in the State, but it accounted for 35.9 per cent of the total number of factory workers.

6.92 The Kerala Raw Cashewnuts (Procurement and Distribution) Act, 1981 empowers Government of Kerala to appoint an agent for the monopoly procurement of raw cashewnuts within the State. As per the Act, the Government have appointed the Kerala State Cashew Workers' Apex Industrial Co-operative Society Ltd. (CAPEX) as the sole agent for procuring rawnuts during 1989 cashew season also. The CAPEX, through 819 primary co-operative societies, could procure 94,240 tonnes of rawnuts during 1989 cashew season. The quantity of rawnuts procured by CAPEX increased by about 49.6 per cent, over 63,000 tonnes of rawnuts procured during the previous year. An amount of Rs. 49.90 crores was allotted to CAPEX as loan for the purpose. The procurement price fixed ranged between Rs. 11.50 and Rs. 13.00 and the selling price from Rs. 13.00 to Rs. 14.50 per kg. The District-wise details of raw nuts procured during 1989 cashew season, procurement price and selling price are furnished in the following table.

TABLE 6.10

District-wise Quantity of Raw nuts procured in 1989 Cashew Season

District	Quantity (MT)		Procurement Price (Rs./Kg.)	Selling Price to Factories (Rs./Kg.)
	Target	Achievement		
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	5,000	4,320	11.50	13.00
2. Quilon	7,000	6,671		
3. Pathanamthitta	2,000	1,719		
4. Alleppey	2,000	1,294	12.00	13.50
5. Kottayam	2,000	1,725		
6. Ernakulam	2,000	2,175		
7. Idukki	1,000	903	12.50	14.00
8. Trichur	9,000	8,109		
9. Palghat	3,000	2,774		
10. Malappuram	14,000	13,217	13.00	14.50
11. Kozhikode	7,000	6,861		
12. Wayanad	1,000	674		
13. Cannanore	31,000	30,096	13.00	14.50
14. Kasaragod	14,000	13,702		
Total	1,00,000	94,240		

6.93 Government of Kerala have authorised CAPEX as agent for procuring raw nuts during 1990 cashew season also. It is proposed to procure one lakh tonnes of raw nuts during 1990 cashew season. The estimated expenditure of Rs. 50 crores required for the procurement operations is being raised from Kerala State Co-operative Bank Ltd., in consortium with District Co-operative Banks other than Wayanad and Idukki.

6.94 The foreign exchange earnings from cashew showed declining trend during 1988-89 also. The net earnings decreased from Rs. 260.33 crores in 1987-88 to Rs. 227.08 crores in 1988-89. Only 34023 tonnes of cashew kernels valued at Rs. 276 crores could be exported during the year compared to 36949 tonnes valued at Rs. 323 crores during the previous year. The quantity and value of cashew kernels, exported declined by about 8 per cent and 14 per cent respectively over the previous year. The quantity and value of cashew shell liquid also declined by about 53 per cent and 49 per cent respectively compared to those in 1987-88. Raw cashewnuts imported during 1988-89 declined to 37078 tonnes valued at Rs. 51.89 crores against 42256 tonnes worth Rs. 67.25 crores in 1987-88.

6.95 Particulars of export of cashew kernel and cashew shell liquid and import of raw nuts and foreign exchange earnings are given in Appendix tables 6.32 and 6.33.

6.96 Kerala State Cashew Development Corporation had 70 factories under its control employing 50,274 workers at the end of 1988-89. About 100 days of work was given to the workers. The Corporation could process 53,772 tonnes of rawnuts valued at Rs. 7559.00 lakhs during 1988-89. The quantity and value of nuts processed during 1988-89 increased by 95 per cent and 76 per cent respectively over the previous year's 27530 tonnes valued at Rs. 4433 lakhs. As a result production of cashew kernels increased by 101% to 13108 tonnes valued at Rs. 10860 lakhs during the year, compared to 6510 tonnes of kernels in 1987-88. The sales turnover during 1988-89 was Rs. 85 crores. The estimated turnover during 1989-90 is Rs. 110 crores and that projected for 1990-91 is Rs. 125 crores. The Corporation suffered a loss of Rs. 2.95 crores during 1988-89 raising the accumulated loss to Rs. 42.93 crores. The Corporation has replaced old equipment in the factories and is currently implementing a modernisation programme in 34 old factories.

6.97 Kerala State Cashew Workers Apex Industrial Co-operative Society Limited (CAPEX) was registered on 9-8-1984 for taking over the closed cashew factories and organising them into industrial co-operative societies. There were 9 factories employing 4360 labourers under CAPEX at the end of 1988-89. These factories processed 4390.6 tonnes of raw nuts valued at Rs. 609.95 lakhs, during the year which was substantially higher than 2038.68 tonnes valued at Rs. 294.4 lakhs processed in 1987-88. The Society provided employment for 116 days to its employees. CAPEX exported 988 tonnes of cashew kernel worth Rs. 748.5 lakhs in 1988-89 against 659.2 tonnes valued at Rs. 547.6 lakhs exported in 1987-88. 53 tonnes of cashew kernels were sold in the domestic market, during 1988-89 taking the total turnover to Rs. 772.50 lakhs.

Beedi Industry

6.98 The Kerala Dinesh Beedi Workers Central Co-operative Society play a dominant role in promoting the beedi industry. 22 primary beedi worker's co-operative societies are functioning under it. The Society provided employment to 32,670 workers during 1988-89. 25 per cent of the workers are women, Working in about 500 sheds spread over the three northern districts of Kasaragod, Kannur and Kozhikode. Most of the worksheds are taken on heavy rent. The society has planned to construct 350 worksheds in a phased manner. Besides paying reasonably high wages, the company is implementing social security schemes including pension.

6.99 The total number of beedies manufactured during the year 1988-89 was 531.06 crores worth Rs. 27.04 crores. During the year the production decreased by 27 per cent with a fall in revenue of about 23 per cent. The value of raw materials consumed by the society amounted to Rs. 4.46 crores and the wages and salaries and bonus paid to the workers and staff of the primary and central societies amounted to Rs. 18.64 lakhs. The sale proceeds of the society during 1988-89 was Rs. 28.08 crores. More than 99 per cent of the raw materials consumed by the society are imported from other states while about 87 per cent of the sale proceeds are realised from the domestic market. The net profit of the society during 1988-89 was Rs. 26.11 lakhs.

Sericulture

6.100 Sericulture is being implemented in the State on a modest scale in selected pockets from 1986-87 onwards. As at the end of 1988-89 an area of 467 hectares (1167 acres) in different parts of the State had been brought under Sericulture, involving 1555 farmers. It is expected that during 1989-90 an additional area of around 600 hectares would be brought under Sericulture and the total area covered by the programme at the end of the Seventh Plan would be 1100 hectares (2750 acres). Realising the feasibility of the programme and employment potential, it is proposed to extend the programme on a large scale in all the districts of Kerala during Eighth Plan period. A target of 28,000 acres (11,200 hectares) has been proposed for the whole State, at the rate of 2000 acres (800 hectares) per district during Eighth Plan. In view of the high employment potential in rural areas, sericulture has been recognised as a major thrust area of development.

Mining

6.101 The Department of Mining and Geology continued its activities connected with the exploration and development of mineral resources in the State, during 1988-89. The Department carried out the functions entrusted with it under the Mines and Minerals (Regulation and Development) Act of 1967 for regulating the mining activities in the State quite satisfactorily. The investigations conducted by the Department have proved a number of mineral occurrences in

various parts of the State. The working of the 'Mineral Squad' set up by the Department at Trivandrum was very effective in checking clandestine mining and transport of valuable minerals from the State and in enhancing the revenue from the mining sector. The details of revenue collected by the Department during the period from 1985-86 to 1988-89 are given in Appendix 6.34 . The production of major minerals in the State including ilmenite, rutile and zircon has increased during 1988-89 as compared to the previous year. The details on production of minerals in Kerala during 1987-88 and 1988-89 are given in Appendix-6.35.

6.102 The Kerala Mineral Exploration and Development Project (KMEDP) started with the assistance of the UNDP in 1977 carried out a number of exploratory works on various valuable minerals in the State. The project continued the investigation for primary gold in Maruda area in Malappuram District during 1988-89 with a view to augmenting the reserves proved earlier. Analysis of the trench samples taken from this area has given encouraging results. Efforts were made to involve the Government of India

organisations like Indian Bureau of Mins for setting up a pilot scale mining and concentration plant with a capacity of 400 tonnes per day for the concentration of gold from the river gravels of Chaliyarpuzha and Punnappuzha in Nilambur. The project carried out a detailed exploration at Chirakkadavu graphite prospect by trenching, pitting and mapping to delineate individual graphite bands for establishing a pilot scale mining and beneficiation plant.

6.103 As part of the filed programmes for 1988-89 a follow up geochemical survey was conducted in some parts of Idukki District where an anomaly for silver was delineated during regional surveys. In addition to this, systematic examination of dolerite occurrences was continued during this period in parts of Kasaragod, Wayanad, Palghat, Idukki, Kottayam and Pathanamthitta Districts with a view to exploiting the export potential and indigenous demand for black and coloured dimension and ornamental stones. Besides, the project could identify three prospective areas for gemstones in Quilon District during the field season, 1988-89.

CHAPTER 7

TRANSPORT AND COMMUNICATIONS

The transport and communications infrastructure of Kerala is fairly well-developed. The year under review witnessed further improvements in the existing facilities. The total road length in the State increased by 2286 km. from 118195 km. to 120481 km. The length of surfaced roads in the State comprised of 23785 km. Kerala has a road length of 310 km. per hundred sq. km. of area and 472 km. per lakh of population (1981 Census). But according to the projected population of 1989 the road length per lakh of population in the State works out to 411 km. during the year under review. The number of motor vehicles registered in the State stood at 5.23 lakhs in 1988-89, as against 4.74 lakhs in 1987-88: registering an increase of 10.3 per cent. Kerala had 2056 vehicles per lakh of population (1981 Census) and 1347 vehicles per hundred sq. km. of area during the year under review. But as per the projected population of 1989, the number of vehicles per lakh of population in Kerala would be only 1786. The passenger transport operations in the State are carried out both by the public sector and private sector simultaneously. The Kerala State Road Transport Corporation is the only public sector agency in the State which undertakes passenger transport operations. It owns only 23 per cent of the total stage carriages in the State. Goods transport is the monopoly of the private sector.

7.2 The total route length of Railways in the State, comprising of 828 km. broadgauge and 113 km. metre gauge, is very low when compared to other states in the country. Air traffic in the State is operated from Trivandrum, Cochin and Calicut Airports. International flights to Gulf Countries, Colombo and Male, are also operated from Trivandrum.

7.3 State Water Transport Department (SWTD), Kerala Shipping and Inland Navigation Corporation (KSINCO) and the Water Transport Wing of Kerala State Road Transport Corporation (KSTRC) are the three public sector agencies engaged in the Inland Water Transport in the State. Passenger traffic is

handled by SWTD and KSTRC whereas cargo traffic is mainly handled by KSINCO. Area of operation of SWTD is centred around the water logged parts of Quilon, Pathanamthitta, Alleppey, Kottayam, and Ernakulam Districts. Both KSTRC and KSINCO operate boat services in and around Cochin. The three agencies together carried 259.5 lakh passengers and 1.92 lakh tonnes of cargo during 1988-89. A total number of 1,611 persons were employed in these three organisations during the year.

7.4 Total quantity of cargo handled at the intermediate and minor ports increased to 3.04 lakhs tonnes compared to 0.83 lakh tonnes in 1988, which showed a record increase of 367 per cent. The revenue earnings of the intermediate and minor ports of Kerala also increased by 71.4 per cent. The number of steamers and sailing vessels which called at the intermediate and minor ports increased by 4.4 per cent and the registered tonnage of steamers and sailing vessels increased by 140 per cent. Out of the total cargo handled at the intermediate and minor ports, 44.6 per cent was handled at Calicut port alone. This was due to the larger quantity of import of foodgrains through this port.

7.5 The number of post offices remained the same (4782) during 1988-89 as in the previous year. Average area and population served by a post office in Kerala stood at 8.15 sq. km. and 6157 persons respectively.

7.6 Kerala Telecom Circle has 623 telephone exchanges spread over the 10 secondary switching areas. Total number of working connections increased to 2.09 lakh numbers during the year 1988-89 from 1.85 lakh numbers in the previous year registering a growth of 13 per cent.

7.7 The growth of transport and communications infrastructure in the State over the years is furnished in Table 7.1.

TABLE 7.1
Growth of Transport and Communications infrastructure since 1975

Item	Unit	1975	1980	1985	1986	1987	1988	1989
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Road Length (P.W.D.)	Km.	14870	17408	19107	19460	19752	19808	19815
2. Road Length (Panchayats)	"	54812	66158	81515	81539	82913	90301	92104
3. Motor Vehicles	No.	119720	174704	319259	361617	414310	473789	523343
4. Passenger Buses	"	7828	8705	12910	13497	16704	18121	19034
5. Goods Vehicles	"	15875	21121	40879	45325	51284	57388	58528
6. Buses under KSRTC	"	2212	2935	3239	3070	3019	3219	3240
7. Railway Route Length								
(a) Broad Gauge	Km.	774	803	828	828	828	828	828
(b) Metre Gauge	"	122	113	113	113	113	113	113
Sub Total	"	896	916	941	941	941	941	941
8. Minor Ports	No.	10	11	9	9	10	10	10
9. Intermediate Ports	"	2	3	4	4	3	3	3

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. <i>Traffic through Minor & Intermediate Ports</i>	Lakh Tonnes							
(a) Export	"	17.30	1.87	1.49	0.99	0.75	0.74	1.29
(b) Import	"	1.28	0.76	0.26	0.12	0.15	0.09	1.74
11. <i>Traffic through Cochin Port</i>								
(a) Export	"	12.82	11.10	3.90	7.19	12.83	12.17	12.83
(b) Import	"	35.90	43.60	36.76	45.59	56.00	55.85	65.41
12. Length of Navigable Water Ways	Km.	NA	1895	1895	1895	1895	1895	1895
13. Passenger Boats in Public Sector	Nos.							
(a) State Water Transport Department (SWTD)	"	..	..	74	75	75	75	79
(b) Kerala Shipping and Inland Navigation Corporation (KSINCO)	"	68	76	8	8	8	9	9
(c) Kerala State Road Transport Corporation (KSRTC)—Water Transport Wing	"	..	..	12	12	12	12	12
14. Post Offices	"	4024	4512	4751	4748	4748	4782	4782
15. Telephone Exchanges	"	286	441	561	584	608	621	632
16. Total Equipped capacity	"	70410	104595	144462	162721	178821	195852	224377
17. Public call offices	"	2352	2292	2766	2858	2944	2938	2955

Roads

7.8 The State has a total road network of 1,20,481 km, which is maintained by various departments/agencies such as National Highways, Public Works Department, Municipalities, City Corporations, Pan-

chayats, Kerala State Electricity Board, Forest etc. Of this, the Public Works Department maintains a road length of 19,815 km. The total length of black topped/metalled roads in the State is only 23,119 km. Table 7.2 shows the total road length under different departments.

TABLE 7.2

Length of roads in Kerala under different departments as on 31st March 1988 and 1989

Department	As on 31-3-1988		As on 31-3-1989	
	Road Length (in km)	Road Length in km*	Percentage	
(1)	(2)	(3)	(4)	
1. National Highways	842	842	0.70	
2. Public Works Department	19808	19815	16.45	
3. Panchayats	90301	92104	76.45	
4. Municipalities (including Corporations)	4717	4995	4.14	
5. Forests	2215	2413	2.00	
6. Others@	312	312	0.26	
Total	118195	120481	100.00	

@'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.

* Provisional

The total length of National Highways remained at 842 km, as in the previous year. Out of this, National Highway 47 comprised of 417 km, N.H. 47A, 6 km and N.H. 17,419 km. The road length under Public Works Department, Panchayats and Corporations/Municipalities showed an increase of 7 km, 1803 km and 278 km. respectively

during 1988-89 compared to the corresponding road lengths in the previous year.

7.9 The black-topped and cement concrete roads constitute only 84 per cent of the total length of roads maintained by the Public Works Department. The surface-wise distribution of Public Works Department roads in the State is given in Table 7.3.

TABLE 7.3
Distribution of Public Works Department Roads by type of surface as on 31-3-1989

Category	(km)					Total
	Cement Concrete	Black topped	Water Bound Mecadam	Others		
(1)	(2)	(3)	(4)	(5)	(6)	
1. State Highways	16.612	2018.343	13.150	1.400	2049.505	
2. Major District Roads	8.263	5890.020	59.551	23.881	5981.715	
3. Other District Roads	..	7873.738	406.162	649.487	8929.387	
4. Village Roads	..	857.207	187.071	1810.204	2854.482	
Total	24.875	16639.308	665.934	2484.972	19815.089	

7.10 The Public Works Department developed/improved 400 km. of roads in the year 1988-89. The Department also took over 28 village roads with a total length of 142 km. in the year under review. (Appendix 7.1)

7.11 The Public Works Department has fifteen Divisions which are mainly concerned with road development in the State. Of these, Kottayam Division has the maximum road length viz. 1975 km. About 92 per cent of this is black topped and cement concrete. The Trivandrum Division ranks second with a road length of 1698 km; about 92 per cent of this is black topped. Wayanad Division ranks the lowest in terms of road length with 582 km. The division-wise distribution of Public Works Department roads is given in Appendix 7.2.

7.12 The length of Panchayat roads in the State is nearly 92,104 km as at the end of the year 1988-89. The length of black-topped/metalled, earthen and gravelled roads are 6455 km., 52,973 km. and 32,676 km. respectively. The district-wise analysis of roads maintained by the Panchayats in the State showed that Quilon district occupies the top position in terms of road length (13727 km.) maintained by panchayats, where as Wayanad district is at the bottom of table with 2428 km. Appendix 7.5 shows the district-wise distribution of length of roads, by type of surface, in the State.

7.13 The State Government had launched a programme viz. M.L.A. Road Programme (Two roads programme) in 1983-84. Under this programme, 279 works were taken up. The works include construction of 278 numbers of roads covering a length of 1627 km. and a bridge. The total cost of these works

is estimated at Rs. 64 crores. Expenditure till the end of March 1989 amounted to Rs.35 crores. At the end of the year 1988-89, 94 works were completed and 136 were in progress. The work on remaining 49 works is to be taken up.

Road Accidents

7.14 The number of road accidents caused by different types of vehicles in the State increased to 14,933 in 1988-89, from 13081 in the previous year, registering an increase of 14 per cent. The number of persons injured during 1988-89 also showed an increase (11 per cent) to 20,098 from 18,111 in the preceding year. While the fatal cases stood at 1587 in 1987-88 it went upto 1604 during 1988-89, registering an increase of 1.07 per cent. The statistics relating to primary cause of accidents reveal that 91.5 per cent was caused due to the fault of the driver. The number of road accidents due to various causes are shown in Appendices 7.6 and 7.7.

Road Transport

7.15 The road transport operations in the State are carried out both by the Public sector and Private sector. The Kerala State Road Transport Corporation is the only Public sector agency which handles passenger transport operations in the State. But the private sector plays a predominant role both in passenger and goods transport operations. The goods transport by road is more or less the monopoly of the private sector.

7.16 The total number of motor vehicles registered in the State stood at 5.23 lakhs in 1988-89 against 4.74 in 1987-88; an increase of 10.3 percent.

The growth in the number of motor vehicles since 1975 is shown in Appendix 7.8. The density of motor vehicles in Kerala is high when compared to many other States in India. Kerala had 1861 vehicles per lakh of population (1981 Census) and 1219 vehicles per hundred sq.km. of area in 1987-88. The corresponding All-India figures are 1968 and 410. In 1988-89 Kerala had 2056 vehicles per lakh of population (1981 Census) and 1347 vehicles per hundred sq. km. of area. But as per the projected population of 1989, the number of vehicles per lakh of population in Kerala comes to only 1786 during the year under review.

7.17 A category-wise analysis of motor vehicles having valid registration in the State during 1988-89 reveals that about 41 per cent were scooters/motor cycles followed by cars, station wagons including taxi cars and jeeps. Out of the 3,23,345 vehicles, 2,13,849 (41 per cent) were scooters/motor cycles, 1,60,094 (32 per cent) cars, station wagons including taxi cars and jeeps, 52,528 (11 per cent) goods vehicles, 62,838 (12 per cent) other vehicles and 19,034 (4 per cent) buses in the year under review. Ernakulam district ranks first followed by Trivandrum, while Wayanad District has the lowest number of vehicles having valid registration.

7.18 The number of new registration of motor vehicles in the State during the year under review stood at 45,815 as against 52,003 in 1987-88, registering a decline of 11.89 per cent. At the end of 1988-89, the newly registered vehicles in the State consisted of 26,656 (58 per cent) scooters/motorcycles, 8,619 (19 per cent) cars, station wagons including taxi cars and jeeps, 2906 (6 per cent) goods vehicles, 1309 (3 per cent) buses and 6325 (14 per cent) other vehicles. In respect of registration of new vehicles, Ernakulam district ranked first (8669 nos.) followed by Trichur (6095 nos.) Wayanad district held the lowest rank (503 nos.). The details are given in Appendix.7.11

7.19 During the year under review, the Regional Transport Authorities issued 3,975 temporary and 375 pukka stage carriage permits. Under the National permits Scheme, 2771 permits were issued during the year under review. The details regarding permits granted are given in Table 7.4.

TABLE 7.4

Details regarding issue of permits and National permits granted under National permits' Scheme

	1988-89
1. Permits granted under:—	
(i) existing inter-state operators (Nos)	} 2771
(ii) existing intra-state operators (Nos)	
(iii) ex-army personnel (Nos)	
(iv) unemployed drivers (Nos)	
(v) Scheduled Castes/Scheduled Tribes (Nos)	
Total	2771
2. State quota of National Permits (end of March 1989)	Nil
3. Number of goods vehicles having interstate permits (not included under National Permits Scheme)	
(i) Vehicles registered in Kerala having permit to operate in other states	3500
(ii) Vehicles registered in Other States having permit to operate in Kerala	3500
Total	7000
4. Number of stage carriage permits issued by R.T.As.	
(a) Temporary	3975
(b) Pukka	375
Total	4350

7.20. The total revenue collected under the Kerala Motor Vehicles Act and Rules by way of taxes and fees amounted to Rs. 62.85 crores in 1988-89, as against Rs. 55.19 crores in 1987-88 showing an increase of 13.88 per cent. The cumulative arrears of tax under the Motor Vehicle Act for the private sector as on 31-3-1989 stood at Rs. 1.52 crores. In the Public Sector, the main defaulter is KSRTC, which alone had to remit Rs. 39.30 crores during 1988-89.

Passenger Transport

7.21. The passenger transport operations in the State are carried out both by the public sector and private sector. During the year under review, the stage carriages under public sector accounted for 23 per cent, same as that in the previous year. The corresponding share of the public sector vehicles in the neighbouring States in 1987-88 is. Tamil Nadu 44 per cent, Karnataka 40 per cent and Andhra Pradesh 98 per cent. The district-wise distribution of stage carriages is given in the Table 7.5

TABLE 7.5

District-wise distribution of stage carriages in the State

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	1116	208	1324
2. Quilon	4	273	725	998
3. Pathanamthitta	3	148	402	550
4. Idukki	1	34	315	349
5. Alleppey	6	313	545	858
6. Kottayam	6	293	899	1192
7. Ernakulam	6	292	1521	1813
8. Trichur	5	197	1613	1810
9. Palghat	1	77	846	923
10. Malappuram	3	83	883	966
11. Calicut	2	125	1148	1273
12. Wayanad	2	153	95	248
13. Cannanore	2	110	1260	1370
14. Kasaragode	1	26	338	364
Total	55	3240	10798	14038

*Includes vehicles held in various workshops of KSRTC also. According to the report from Transport commissioner's Office, the number of stage carriages under KSRTC is 3634.

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

7.22 The statistics relating to the number of stage carriages in the State, according to the Transport Commissioner's Office, showed an increase from 13,741 during 1987-88 to 14,432 in 1988-89. It is evident from the above table that the private sector plays a dominant role in regard to stage carriages in Kerala. The private sector in the northern districts plays a major role in the passenger transport operations.

Passenger Transport under Public Sector—KSRTC

7.23 The fleet strength of Kerala State Road Transport Corporation consisted of 3240 vehicles in 1988-89 as against 3219 in 1987-88, registering a growth of 0.65 per cent. The corporation disposed of 329 buses in the year under review as against 129 in the preceding year. The Corporation added 413 and 329 buses respective to its fleet in these two years. The number of schedules operated by the Corporation increased to 2888 during 1988-89, as against 2840 in 1987-88, showing an increase of 1.69 per cent, as against 10.2 in 1987-88. The Corporation operated in 3865 routes with a route distance of 1.73 lakh km. during the year under review. But the corresponding figures for 1987-88 stood at 3839 and 1.72 lakh km. The total number of passengers carried by the fleet of the Corporation stood at 8545 lakhs in 1988-89, as against 8181 lakhs in 1987-88 showing an increase of 4.45 per cent.

7.24. In the case of unit-wise distribution KSRTC, Trivandrum district topped with 13 units and 1116 buses, which accounted for 34 per cent of the total number of buses held by the Corporation. Alleppey district ranked second with 313 buses and Kasaragode district unit had the lowest number with 26 buses.

7.25 The gross revenue earnings of the Corporation showed an increase of 16.99 per cent, from Rs. 127.28 crores in 1987-88 to Rs. 148.90 crores in 1988-89. The student passengers accounted for 6.85 per cent of the total passengers during the year under report. The total number of student passengers is estimated as 585.91 lakhs. The present fare structure of KSRTC is given in Table 7.6.

TABLE 7.6
Revised Fare Structure of KSRTC w. e. f. May 1988

Type of Service	Basic fare per Km. (Paise)	Minimum fare (Paise)
(1)	(2)	(3)
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

7.26 The average earnings per passenger increased by 12.4 per cent, viz. from 152 paise in 1987-88 to 170.9 paise in 1988-89. The average earnings per

km. of buses operated had gone up to 4.60 paise from 420 paise, registering an increase of 11.59 per cent. The earnings per vehicle on road per day had also registered an increase. The figures are Rs. 1508 in 1988-89 and Rs. 1332 in 1987-88 (13.12 per cent)

7.27 The gross revenue expenditure of the Corporation had gone up to Rs. 172.05 crores in 1988-89 from Rs. 141.28 crores in 1987-88, showing an increase of 21.78 per cent. Out of the total expenditure of Rs. 172.05 crores in 1988-89, expenditure on staff accounted for Rs. 88.43 crores (51.40 per cent), Rs. 21.86 crores (12.71 per cent) for repairs and maintenance, Rs. 31.99 crores (18.59 per cent) for fuel and Rs. 29.77 crores (17.30 per cent) for other expenditure. The percentage of fuel and other expenses had come down from 21.64 and 19.41 respectively in 1987-88 to 18.59 and 17.30 in 1988-89. While the gross revenue earnings of the Corporation increased by 17 per cent, the gross revenue expenditure went up by 22 per cent during 1988-89, compared to the preceding year.

7.28. The statistics relating to the profit/loss of the Corporation reveals that the Corporation incurred a loss of Rs. 23.15 crores during the year under review, as against the loss of Rs. 14 crores in the previous year. The accumulated loss of the Corporation went up to Rs. 123.73 crores in 1988-89.

7.29 As regards capital investment since the inception of the KSRTC, the Government of Kerala contributed Rs. 43.82 crores and the Government of India shared Rs. 17.84 crores till the end of 1988-89. Loans totalling to Rs. 74.67 crores were outstanding during 1988-89 of which loan from Government of Kerala, LIC and IDBI amounted to Rs. 28.48 crores, Rs. 14.01 crores and Rs. 32.18 crores respectively.

7.30 The performance efficiency and productivity of all road transport corporations depend on age and composition of the fleet, staff productivity, fleet utilisation etc. The percentage of overaged fleet in KSRTC in 1988-89 stood at 40.10. Utilisation of overaged fleet together with large number of breakdowns, frequent cancellation of scheduled trips affect the operational efficiency and vehicle productivity. The fleet utilisation of KSRTC showed a marginal decrease when compared to the All-India level. It is estimated that the fleet utilisation was about 85 per cent in KSRTC in 1988-89. (The All-India estimated average during 1986-87 was 85.50 per cent.)

7.31 The large proportion of overaged buses held by KSRTC is the major reason for the low percentage of fleet utilisation. The number of overaged buses in KSRTC was nearly 1300 in 1988-89. The other factors which contribute to the efficiency are staff productivity and cost per worker per day. The staff productivity of KSRTC stood at 26 km in 1988-89 as against the All-India estimated average of 32.5 km. The staff cost per worker per day in KSRTC showed an increase to Rs. 80 in 1988-89 from Rs. 52.47 in 1987-88. This is due to the payment of arrears of the last pay revision on 2-2-1987.

7.32 A declining trend is noted in the staff-bus ratio of KSRTC in the year under review. It has come down to 9.30 persons per bus during 1988-89 from 9.44 in 1987-88. The available figures in respect of staff-bus ratio for some of the southern states during 1985-86 are 7.57 for Andhra Pradesh, 6.35 to 8.75 for Tamil Nadu and 6.22 for Karnataka. The staff-strength of the Corporation has also declined to 30,146 persons in 1988-89 from 30,389 persons in 1987-88. The following table shows the category-wise staff position of KSRTC during 1988-89

TABLE 7.7
Category-wise Staff position of KSRTC

Category	At the end of March 1988	At the end of March 1989
(1)	(2)	(3)
1. Administrative Staff including watch and ward	4785	4756
2. Traffic Personnel	18708	18543
3. Maintenance Personnel	6896	6847
Total	30389*	30146*

* Excludes the staff under the Water Transport Wing of Kerala State Road Transport Corporation

Goods Transport

7.33 Private agencies dominate the goods transport operations in the State. The number of goods vehicles in the State showed an increase from 57,388 in 1987-88 to 58,528 in 1988-89. The table given below gives the growth of goods vehicles in the State.

TABLE 7.8
Growth of goods vehicles in Kerala since 1966

Year	No. of goods Vehicles	Index
(1)	(2)	(3)
1966	8848	100
1975	13875	179
1980	20128	227
1981	22896	259
1982	23696	290
1983	29153	329
1984	30966	350
1985	36699	415
1986	43325	512
1987	51284	579
1988	57388	648
1989	58528	661

Railways

7.34 The three Railway Divisions, viz. Trivandrum, Palghat and Madurai cover the entire network of rail route in the State. The total route

length of railways in the State comes to about 941 km; comprising of 828 km. broad-gauge and 113 km. metre-gauge. The Trivandrum Division introduced three Express train services viz. Indore—Cochin Express, Cochin—Patna Express and Cochin—Varanasi Express. The extended train services are; Bangalore—Trivandrum (extended to Nagarcoil), Trivandrum—Ahmedabad (extended to Rajkot) and Trivandrum—Nagarcoil passenger (extend to Kanyakumari).

7.35 The Ernakulam—Alleppey railway line was opened for traffic on 15-10-1989. Regarding the Kayamkulam—Alleppey line, nearly 43 percent of the work was completed by the end of February 1990. The entire route is expected to be completed by June 1991. The estimated cost of the work is Rs. 35 crores. In the case of Trichur—Guruvayur line, 18 percent of the work was over by the end of February 1990. The estimated cost of the work is reckoned at Rs. 17 crores.

7.36 There are 68 railway stations under Trivandrum Division comprising of 42 block stations and 26 halt/flag stations. The passengers originated from the stations under Trivandrum division declined to 309 lakhs in 1988-89, compared to 370 lakhs during 1987-88. The number of wagons loaded at different stations under Trivandrum division showed an increase from 1.49 lakhs in 1987-88 to 1.70 lakhs in 1988-89, whereas the wagons received in the division had declined from 1.25 lakhs in 1987-88 to 1.08 lakhs in 1988-89. Goods originated from and terminated at Trivandrum division were estimated at 32.22 lakh tonnes and 21.20 lakhs tonnes respectively in 1988-89 compared to 27.75 lakh tonnes and 16.50 lakh tonnes respectively in 1987-88. The three minor yards i.e. Irimpanam, Cochin and Ernakulam Marshalling yard are carrying out the freight operations in and around Ernakulam. The Irimpanam yard undertakes the freight operations of M/s Cochin Refineries Ltd. and M/s FACT Cochin division. The Cochin yard undertakes the traffic originating in the port area and the FACT godown of the division. The Ernakulam Marshalling yard takes up the freight operations of the remote corners of the division like Thirunelveli, Nagercoil and the industrial belts in and around Ernakulam.

7.37 The revenue receipts, both from passenger and goods traffic of the Trivandrum division are given in Table 7.9:

TABLE 7.9
Revenue receipts - Trivandrum Division

Item	('Rs. Lakhs)			
	1987-88		1988-89	
	Outward	Inward	Outward	Inward
(1)	(2)	(3)	(4)	(5)
Passenger	4266	..	4585	..
Goods	6118	3756	7051	4668
Total	10384	3756	11636	4668

Air Transport

7.38 The two major agencies which undertake air transport operations in the State are Air India and Indian Airlines. Indian Airlines operates services from Trivandrum, Cochin and Calicut to the major cities in the country. Besides, it undertakes two international services to Colombo and Male. Air India operates services from Trivandrum Airport to the Gulf Countries.

7.39 The number of passengers originated from Trivandrum, Cochin and Calicut Airports showed an increase of 6.6 per cent during 1988-89 compared to the preceding year. The actual number of passengers originated had increased from 3.29 lakhs in 1987-88 to 3.51 lakhs during the year under review. The passengers terminating from these Airports also went up to 3.71 lakhs in 1988-89 from 3.54 lakhs in the preceding year registering an increase of 4.6 per cent.

7.40 The freight traffic originated from the above airports in the State had increased by 13.4 per cent during the year under review. The freight carried during 1988-89 was 2078.83 tonnes as against 1833.30 tonnes during the preceding year. The freight traffic terminated registered a meagre increase of 0.05 per cent during 1988-89 to 3170.27 tonnes in 1988-89 from 3168.68 tonnes in the previous year. (Appendix-7.14)

7.41 The number of passports issued in the State went up from 1.49 lakhs in 1987-88 to 2.08 lakhs in 1988-89, registering an increase of 39.6 per cent. The details of passports issued, emigration clearance granted etc. are shown in Appendix 7.15

Inland Water Transport

7.42 The State Water Transport Department (SWTD), Kerala Shipping and Inland Navigation Corporation (KSINCO) and the Water Transport Wing of Kerala State Road Transport Corporation (KSRTC) are the three agencies which perform the entire inland water transport operations in the State. Passenger traffic is mainly handled by SWTD and KSRTC. Major portion of cargo traffic is handled by KSINCO. The SWTD operates boat services in the water-logged areas in five districts viz. Quilon, Pathanamthitta, Alleppey, Kottayam and Ernakulam. Both KSRTC and KSINCO operate boat services in and around Cochin. The three agencies together carried 259.5 lakh passengers and 1.92 lakh tonnes of cargo during 1988-89. A total number of 1611 persons were employed in these three organisations.

State Water Transport Department

7.43 A separate department for Water Transport was formed in the year 1968. The activity of the department is to conduct boat services in the inland waterways of Quilon, Alleppey, Pathanamthitta, Kottayam and Ernakulam Districts. During 1988-89, the Department operated 54 schedules through 87 routes covering a total route distance of 7345 kms.

7.44 The Water Transport Department owned 79 boats during 1988-89, as against 76 in the previous year. Out of the 79 boats, 20 boats are over aged, more than 20 years, and only 51 boats are in good condition. There is a scheme "Augmentation of ferry services" for replacing all old vessels in a phased manner. The department is now constructing new boats to improve the fleet strength and for replacing the unserviceable ones.

7.45 Total number of passengers carried and total quantity of cargo handled by the boats owned by the SWT Department were 12,869,330 persons and 3,506 tonnes respectively during the year 1988-89, against 12,284,033 persons and 4,052 tonnes in 1987-88. Compared with the previous year's achievements, there has been a 4.76 per cent increase in passenger traffic, but the goods traffic declined by 13.47 per cent. Total Revenue earnings stood at Rs. 141.11 lakhs and the total expenditure at Rs. 251.22 lakhs during the year 1988-89 compared to Rs. 129.43 lakhs and Rs. 236.05 lakhs during 1987-88. The number of persons employed was 1115, which remained the same as that in the previous year.

Kerala Shipping and Inland Navigation Corporation (KSINCO)

7.46 The Corporation undertakes passenger and cargo transportation activities in and around Cochin. The Corporation owns 9 passenger boats with a seating capacity of 777 persons during the year under report. Out of the 9 boats, two are under repair.

7.47 Though the Corporation owned 9 barges with a total capacity of 1975 MT, only 7 were in operation during 1988-89.

7.48 Total revenue receipts of the Corporation stood at Rs. 86.80 lakhs in 1988-89. Out of this 31.9 per cent was from passenger transport and 68.1 per cent from cargo. Further details on the working of the Corporation are given in table 7.10.

Kerala State Road Transport Corporation—Water Transport Wing

7.49 The Water Transport Wing of KSRTC, having a fleet strength of 12 boats conducts boat services in 243 schedules through 8 routes. The area of operation is in and around Cochin.

7.50 The boat service carried 93.13 lakh passengers and 101.09 tonnes of cargo during 1988-89, and earned a total revenue of Rs. 49.63 lakhs. During 1987-88 the corresponding performance indicators were 89.02 lakh persons, 86.31 tonnes of cargo and a revenue collection of Rs. 42.15 lakhs respectively. During the year 1988-89 the KSRTC suffered a loss of Rs. 7.30 lakhs, thus the total loss increased to Rs. 51.45 lakhs from Rs. 44.15 lakhs at the end of the previous year. A total of 268 persons are employed in the department at present.

7.51 Operational statistics of the three organisations are given in Table No. 7.10.

TABLE 7.10

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

Particulars	1987-88			1988-89		
	SWTD	KSINCO	KSRTC	SWTD	KSINCO	KSRTC
	(2)	(3)	(4)	(5)	(6)	(7)
1. Total number of boats owned	76	9(P)&9(B)	12	79	9(P)&9(B)	12
2. Boats aged over 20 years	20	Nil	Nil	20	Nil	Nil
3. Boats in operation	51	7(P)&8(B)	12	47	7(P)&8(B)	12
4. No. of trips or schedules operated per day	54	72	243	54	82	243
5. Gross route distance (km.)	7435	584	..	7345	895	..
6. No. of passengers carried (lakhs)	122.84	34.86	89.02	128.69	37.68	93.13
7. Volume of cargo carried (tonnes)	4052.00	1,74,744	86.31	3506.00	1,88,352	101.09
8. Total Revenue receipts (Rs. lakhs)	129.43	67.36	42.15	141.11	86.80	49.63
9. Total Revenue expenditure (Rs. lakhs)	236.05	87.85	86.31	251.22	94.27	101.09
10. Net loss (Rs. lakhs)	106.63	17.47	44.15	110.12	1.14	31.45
11. No. of persons employed	1,115	172	281	1,115	172	268

(P) Passenger boats
(B) Barges

Ports and Harbours

7.52 Kerala has altogether 14 ports; one major port at Cochin, three intermediate ports at Neendakara, Alleppey and Calicut and ten minor ports at Vizhinjam, Trivandrum, Quilon, Kodungalloor, Badagara, Ponnani, Tellicherry, Cannanore, Azhikkal and Kasaragode.

7.52 The cargo handled at Cochin Port during 1988-89 was 78.24 lakh tonnes, which was a record

in recent years. This is 13.7 per cent higher than the previous record of 68.83 lakh tonnes handled in 1986-87 and 15 per cent higher than 1987-88. The cargo traffic of both coastal trade and foreign trade recorded an increase of 28.82 per cent and 2.42 per cent respectively over that in the previous year 1987-88. Table 7.11 gives the comparative position during the last two years.

TABLE 7.11

Coastal and Foreign traffic through Cochin Port during 1987-88 and 1988-89 (in lakh tonnes)

Traffic	Export			Import			Total		
	1987-88	1988-89	% change increase (+) decrease (-)	1987-88	1988-89	% change increase (+) decrease (-)	1987-88	1988-89	% change increase (+) decrease (-)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Coastal	4.91	6.03	+22.81	27.57	35.81	+29.89	32.48	41.84	+28.82
Foreign	7.26	6.80	-6.34	28.28	29.60	+4.67	35.54	36.40	+2.42
Total	12.17	12.83	+5.42	55.85	65.41	+17.12	68.02	78.24	+15.02

Source: Administration Report of Cochin Port Trust, 1988-89.

37/1086/MC.

7.53 The import traffic during the year under review stood at 65.4 lakh tonnes showing an increase of 17.1 per cent over the preceding year's achievement of 55.8 lakh tonnes. Commodity-wise details of import traffic are furnished in table 7.12.

TABLE 7.12

Commodity-wise import traffic through Cochin Port during 1987-88 and 1988-89 (in tonnes)

Commodities	1987-88	1988-89	% variation increase (+)/dec- crease (-)
(1)	(2)	(3)	(4)
1. Fertilisers and raw-materials	866576	824460	-4.9
2. Food grains	5494	163666	+2879.0
3. Iron, Steel & Machinery	25549	14178	-44.5
4. Newsprint	12071	17143	+42.0
5. Cashewnuts	30499	21847	-28.4
6. Miscellaneous*	4644718	5499864	+18.4
Total	5584907	6541158	+17.1

* Includes P.O.L.

Source: Administration Report 1988-89-Cochin Port Trust.

7.54 Total export through cochin Port during 1988-89 increased to 12.83 lakh tonnes from 12.17 lakh tonnes during 1987-88 registering an increase of 5.42 per cent. Commodity-wise statement of export is given in table: 7.13

TABLE 7.13

Commodity-wise export traffic through Cochin Port during 1987-88 and 1988-89 (in tonnes)

Commodity	1987-88	1988-89	% variation increase (+)/dec- crease (-)
(1)	(2)	(3)	(4)
1. Tea	15371	22884	48.9
2. Cashew Kernels	37323	33932	-9.1
3. Seafoods	42516	52810	+24.2
4. Coir Products	25393	24116	-5.0
5. Spices	45770	41317	-9.7
6. Coffee	47058	41248	-12.3
7. Miscellaneous*	1003206	1066663	+6.3
Total	1216637	1282970	5.5

* Includes P.O.L.

Source: Administration Report 1988-89-Cochin Port Trust.

7.55 The number of ships which called at the Cochin Port during the year 1988-89 also shows an increase of 8.9 per cent over that in the

previous year. Category-wise analysis of ships which called at the port together with their Net Registered Tonnage (NRT) during the year 1988-89 compared to the previous year is given in Appendix 7.16.

7.56 The number of sailing vessels reached the port of Cochin during 1988-89 also increased to 21 from 16 in the previous year.

7.57 Number of passengers sailed from and arrived at Cochin Port during the year under review stood at 20,497 and 21,425 respectively; the corresponding figures in the previous year being 16598 and 21859.

7.58 The intermediate port at Alleppey where there was no landing and shipping operations for the last seven years, was reactivated. The main feature of the port activities during 1988-89 was the large scale import of food grains through the intermediate ports Calicut/ Beypore and Alleppey. For the first time there was import of Timber through Beypore port during the year. In the case of minor ports, only the port at Azhikokal handled any cargo.

7.59 The total quantity of cargo handled at the intermediate and minor ports of Kerala during 1988-89 stood at 3,04,009 MT as against 82,797 M.T. in 1987-88. This is the first time in the last twelve years that the goods traffic at the above ports exceeded 3 lakh tonnes. The passenger steamer service introduced between Beypore and Lacadives during 1987 were operative during 1988-89 and carried 1324 passengers from and 2152 passengers to the Islands. The service of a small oil barge between Beypore and the Islands also continued to operate during the year.

7.60 The total revenue collected at the intermediate and minor ports of Kerala during the year 1988-89 amounted to Rs. 41,35,178.00 compared to Rs. 24,12,092.00 collected in the previous year. This represented an increase of 71.4 per cent. Commodity-wise details of cargo handled are given in Appendix 7.18.

7.61 The number of steamers and sailing vessels which called at the intermediate and minor ports has increased to 402 during 1988-89 from 385 in 1987-88, recording a growth rate of 4.4 per cent. Their registered tonnage has also gone up to 1,59,372 tonnes from 66,332 tonnes during the previous year indicating a rise of about 140 per cent. Port-wise details in respect of number and tonnage of steamers and sailing vessels which called at our intermediate and minor ports are given in Appendix 7.17.

7.62 Dredging operations were conducted by Departmental dredgers at the two intermediate ports Beypore and Neendakara and in Cochin Udyogamandal canal. Details of dredging operations conducted are given in Appendix: 7.19.

7.63 The hydrographic Survey Wing is entrusted with the responsibility of undertaking surveys to collect hydrographic investigation data for the development of various Minor Ports, Fishing Harbours and certain other selected places and to study the feasibility of improvement of the existing facilities there. Such data are being made available to the Harbour Engineering Department to enable them to design of cargo and Fishing Harbours. Apart from the routine harbour surveys, special surveys for marking channel etc. are also being carried out. Hydrographic surveys were conducted at eight places viz; Vizhinjam, Thankassery, Neendakara, Mumambam (Azhikkode), Bepore, Ponnani, Azhikkal and Kasaragod.

Communications

7.64 Kerala Postal Circle comprises of 23 postal and 3 other postal divisions. Total number of post offices remained the same at 4782 as in the previous year. There are 50 Head Offices, 1971 Departmentals and Extra Departmental sub Offices and 2761 branch offices. Apart from this, seventy nine branch post offices out of the 80 sanctioned for the year 1988-89 have also been opened during the period from May to December 1989.

7.65 Other Postal Divisions are RMS with 92 subordinate offices, Mail Motor Service Division with 5 unit offices and a central stamp depot. Speed post system introduced during 1987 with two centres at Cochin and Trivandrum has expended during the year with two more centres at Alwaye and Quilon. Names of speed post centres in India and the names of countries where speed post service available are given in Appendix: 7.22.

7.66 Average area and population served by one post office in Kerala stood at 8.15 sq. kms. and 6157 persons respectively. Division/District-wise details relating to area and population served by each post office in appended (Appendix: 7.25).

7.67 Kerala Telecom Circle is divided into 10 Secondary Switching Areas consisting of 632 telephone exchanges. Total equipped capacity and working connections increased to 2,24,377 and 2,08,884 respectively during 1988-89. The corresponding figures at the end of the previous year were 1,95,852 and 1,84,770. The respective growths registered during the year are 12.7% and 11.5%. The increase in the installation of telephones, viz.; 24,114 connections during the year is an all time record. Seventeen new stations were connected to NDS (No Delay Service) network. Ernakulam stood first in regard to total number of telephone exchanges, equipped capacity and working connections. SSA-wise details regarding Telecom System in Kerala are given in Appendix 7.27. Average

population served by each telephone connection, on the basis of projected population for the year 1989, is estimated at 141 persons.

Tourism

7.68 The Department of Tourism and the Kerala Tourism Development Corporation are the two agencies which carry out tourism development activities in the State. The KTDC and the Department of Tourism together spent an amount of Rs. 187.80 lakhs during the year under review as against Rs. 125.08 lakhs in the previous year.

7.69 During the year 1988-89, the Department of Tourism undertook the following activities. Construction works of the beach resorts at Varkala and Kappad, Yatrinivases at Trivandrum, Quilon, Trichur and Cannanore, Guest Houses at Kasaragode and Cannanore, the Veli Tourist Village and a park and a restaurant at Shanghumugham beach were carried out by the Department. Wayside amenities were provided at five places. Water sports were introduced at Malampuzha and Kovalam. Three Mini Buses were purchased by the Department. Tourism Promotion Councils were organised in almost all districts. An institute of Tourism and Travel Studies was set up in the State to give a professional bent in the field of tourism.

7.70 On the publicity side, Winter cultural programmes and Tourism Week Celebrations were conducted. For the benefit of the tourists, various types of information materials such as Directory of Kerala, folders on Trichur, Guruvayoor and Kalady and 'Travel facts' were published by the Department of Tourism. A spices Fair was conducted at Cochin and World Tourism Day was also celebrated.

7.71 About 52,000 foreign tourists and 1,240,000 domestic tourists are estimated to have visited the State during the year under review.

7.72 The Kerala Tourism Development Corporation runs eleven hotel units and five motels within the State. In addition to the above, the Corporation has restaurants at Trivandrum Museum, Ponnudi and Veli. Except the hotel Chaithram and Periyar House at Thekkady, all other hotel units had an occupancy ratio of less than 60 per cent during the year under report. The income of the Corporation stood at Rs. 227.14 lakhs where as the expenditure amounted to Rs. 219.38 lakhs, of which the operating and administrative expenses work out to 31 percent and 69 percent respectively.

7.73 The operational details of the KTDC are furnished in Appendix 7.28.

CHAPTER 8

EXPORT IMPORT TRADE

India's Foreign Trade

In spite of a phenomenal growth in exports the balance of payments came under severe strain during 1988-89 mainly because of the sharp rise in import bill and the repayments to the IMF under the Extended Fund Facility (EFF), which peaked during the year. The spurt in the import bill was mainly the result of the spillover of essential imports necessitated by the previous year's drought, a rise in international prices of certain items and a sharp increase in the imports of capital goods.

8.2 There has been continuous strain on India's foreign exchange front which aggravated in recent years. Our foreign exchange reserves (comprising foreign currency assets, gold and SDR) declined by Rs. 647 crores to Rs. 7040 crores during 1988-89 as against a decline of Rs. 465 crores during 1987-88. In SDR terms, these reserves amounted to SDR 3715 million at the end of March 1989, showing a fall of SDR 771 million during 1988-89, as against a decline of SDR 627 million during 1987-88.

8.3 According to the provisional data released by the Director General of Commercial Intelligence and Statistics (DGCI&S), the trade deficit increased from Rs. 6,624 crores in 1987-88 to Rs. 7,412 crores in 1988-89. Thus, the declining trend in trade deficits noticed in 1986-87 and 1987-88 was reversed during the year 1988-89 as shown in Table 8.1

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	8809	14293	-5490
1983-84	9771	15831	-6060
1984-85	11744	17134	-5390
1985-86	10895	19658	-8763
1986-87	12452	20096	-7644
1987-88	15719	22343	-6624
1988-89 (P)	20281	27693	-7412

Note: (P)—Provisional.

Source: RBI—Annual Report 1988-89.

8.4 During 1988-89 exports in rupee terms, as given provisionally by DGCI&S, rose by 29 per cent to Rs. 20281 crores from Rs. 15719 crores in 1987-88, surpassing the target of Rs. 18,795 crores fixed for the year. However, in SDR terms, exports increased only by 14.7 per cent in 1988-89. Imports during 1988-89 at Rs. 27,693 crores were higher by 23.9 per cent as against a rise of 11.2 percent during 1987-88. In SDR terms while imports in 1987-88 increased by only 0.3 percent it was higher by 10.2 per cent during 1988-89.

8.5 A multi-pronged strategy comprising of substantial fiscal and interest rate incentives, liberal policies to encourage capacity expansion for export production and technology upgradation and appropriate exchange rate policy to improve export profitability etc., have facilitated export growth. The non-POL exports during 1988-89 amounted to Rs. 19,776 crores which is higher by Rs. 4 690 crores or 31.1 per cent over the preceding year. Commodity-wise data show that significant increases in exports during 1988-89 were recorded by chemicals and related products (86%), engineering goods (65%), gems and jewellery (68%), iron ore (24%), marine products (20%), and readymade garments (17%). The export of fourteen thrust sector items the only identified for special export efforts showed an increase of 39 per cent.

8.6 As regards direction of exports a development of considerable significance has been the sizable shift in favour of the EEC countries. Their share in India's export rose from 17.7 per cent in 1985-86 to 24.4 per cent in 1988-89. As such the EEC unification programme by 1992 may open up new vistas of both challenges and opportunities for India in the export front.

8.7 The spurt in imports during 1988-89 was partly due to the import of commodities such as wheat and pulses to replenish depleted food stocks and to meet domestic shortages on account of the drought of 1987. Further, larger imports necessitated by the economic buoyancy in 1988-89, higher import prices of certain items and liberalised import of capital goods have contributed to the higher import bill. Commodity-wise details for 1988-89 show that major increases in non-oil imports were observed under cereals and cereal preparations, manufactured fertilizers, non-ferrous metals, iron and steel, pearls precious and semi-precious stones, machinery and transport equipment etc. As in the case of exports, the share of EEC in India's imports has also been steadily rising. It went up from 26.6 per cent in 1985-86 to 31.4 per cent in 1988-89.

8.8 The export-import ratio which indicates the extent to which export finances imports has increased from 53 per cent in 1980-81 to 73 per cent in 1988-89. It is expected to go up to 85 per cent in 1989-90. There has been a significant shift in the structure of

both India's exports and imports in the 80's. The share of manufacture in total exports increased considerably as exports of agricultural products and minerals declined. The share of imports of basic goods including crude oil and fertilizers declined while that of capital goods and intermediate goods increased. The share of agriculture and allied products like coffee, tea, spices, cashew and tobacco etc., in total exports declined from 24 per cent in 1980-81 to 15 per cent in 1988-89. The export boom of last decade has thus been led by manufactured goods like engineering goods, readymade garments, gems and jewellery, leather and leather goods, basic chemicals etc.

Trade Through Cochin Port

8.9 The total traffic handled at Cochin port went up by 15 per cent from 68.02 lakh tonnes in 1987-88 to 78.24 lakh tonnes in 1988-89. The value of trade (exports and imports) handled by the Port has also increased by 10.3 per cent from Rs. 1783 crores in 1987-88 to Rs. 1967 crores in 1988-89.

8.10 During the year both foreign trade and coastal trade increased by 2.4 per cent and 28.8 per cent respectively over the preceding year. The substantial increase in coastal trade was mainly due to larger imports of crude from Bombay. During the year coastal trade formed 53.4 per cent of the total traffic and foreign trade 46.6 per cent as against 47.8 per cent and 52.2 per cent respectively in the preceding year. Exports of principal commodities through Cochin Port during 1987-88 and 1988-89 is shown in table 8.3

TABLE 8.2
Traffic Handled by Cochin Port 1987-88 & 1988-89
(in lakh tonnes)

Traffic	Export		Import		Total	
	1988-89	1987-88	1988-89	1987-88	1988-89	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coastal	6.03	4.91	35.81	27.50	41.84	32.48
Foreign	6.80	7.26	29.60	28.28	36.40	35.54
Total	12.83	12.17	65.41	55.85	78.24	68.02

Source: Cochin Port Trust.

TABLE 8.3
Total Exports during the year 1987-88 and 1988-89
(Tonnes)

Commodities	1988-89		1987-88		% variation over 1987-88
	Quantity	Percentage	Quantity	Percentage	
(1)	(2)	(3)	(4)	(5)	(6)
Tea	22884	1.8	15371	1.3	(+)48.9
Spices	41317	3.2	45770	3.8	(-)9.7
Cashew Kernels	33932	2.7	37323	3.1	(-)9.1
Coffee	41248	3.2	47058	3.9	(-)12.3
Seafoods	52810	4.1	42516	3.5	(+)24.2
Coir Products	24116	1.9	25393	2.1	(-)5.0
Miscellaneous*	1066663	83.1	1003206	82.3	(+)6.3
Total	1282970	100.0	1216637	100.0	(+)5.5

Source: Cochin Port Trust

8.11 Total exports during 1988-89 showed an increase of 5.5 per cent to 12.8 lakh tonnes from 12.2 lakh tonnes in the preceding year. The composition of exports shows the importance of traditional foreign exchange earners like Tea, Cashew, Seafoods, Spices, Coffee etc. The value and quantity exported and the corresponding shares registered an increase in the case of Tea and Sea foods. The value of exports increased by 4.6 per cent from Rs. 1033 crores in 1987-88 to Rs. 1080 crores in 1988-89. The commodity wise exports and imports through Cochin port for the period 1979-80 to 1988-89 are given in Appendix 8.2 and 8.3.

TABLE 8.4
Commoditywise Value of Foreign Export Trade
(Rs. crores)

Commodities	1987-88		1988-89		% variation over 1987-88
	Value	Percentage	Value	Percentage	
(1)	(2)	(3)	(4)	(5)	(6)
Tea	33.35	3.23	43.46	4.02	30.31
Pepper	233.65	22.60	156.23	14.45	-33.14
Cardamom	0.56	0.05	1.41	0.13	151.79
Cashew Kernels	278.42	26.93	251.23	23.24	-9.77
Coffee	111.35	10.77	127.05	11.75	14.09
Ginger	3.84	0.37	7.83	0.72	103.91
Seafoods	187.47	18.14	224.15	20.74	19.57
Coir products	20.97	2.03	20.94	1.94	-0.14
Miscellaneous	164.10	15.87	248.53	22.99	51.45
Total	1033.71	100.00	1080.83	100.00	4.5

Source: Cochin Port Trust.

Export of Marine Products

8.12 Export of marine products touched a new peak of 99777 tonnes valued at Rs. 598 crores during 1988-89 representing a growth of 2.7 per cent in volume and 12.6 per cent in value over the previous year. In 1987-88, the quantity exported was 97179 tonnes valued Rs. 531.20 crores. The average unit value has also increased to Rs. 59.92 per Kg. in 1988-89 from Rs. 54.66 per Kg. in 1987-88. The export of marine products has shown a steady increase both in volume, and value for the fourth year in succession since 1985-86 as shown in table 8.5.

TABLE 8.5

Export of Marine Products: India—1984-85 to 1988-89

Year	Quantity (Tonnes)	Value (Rs. crores)	Unit value (Rs/Kg)
(1)	(2)	(3)	(4)
1984-85	86187 (-7.02)	384.29 (3.02)	44.59
1985-86	83651 (-2.94)	398.00 (3.57)	47.58
1986-87	85843 (2.62)	460.67 (15.75)	53.66
1987-88	97179 (13.21)	531.20 (15.31)	54.66
1988-89	99777 (2.67)	597.85 (12.55)	59.92

Note: Figures in brackets gives percentage changes over the previous year.

Source: Marine Products Export Development Authority, Cochin.

8.13 This impressive performance was achieved, despite the growing competition in the international market, especially in USA and Japan which constitute a major market segment for Indian Products. The competition in the Japanese and US markets for India is mainly due to the abundant supply of cultured shrimp from China, Indonesia, Ecuador, Vietnam, Taiwan and Philippines, for which there has been a steadily growing market preference. However, the efforts directed towards marketing and diversification of products have contributed much in achieving significant results.

8.14 The export of marine products from Kerala through Cochin port has recorded an impressive growth of almost 28 per cent in 1988-89 to touch an all time high of 45614 tonnes valued at Rs.221 crores which also represents a growth rate of 20 per cent. This is against the all India growth rate of 2.67 per cent in volume and 12.5 per cent increase in terms of value of exports of marine products as can be seen from the table 8.6.

8.15 During 1988-89 Kerala accounted for about 45.7 per cent of the total quantity exported and 37 per cent of the total export earnings. The corresponding figures for 1987-88 were only 36.6 per cent and 34.6 per cent respectively.

TABLE 8.6

Export of Marine Products: Kerala—1980-81 to 1988-89

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	38429
1984-85	31570	14813	86187	39800
1985-86	29580	13808	83651	39800
1986-87	33906	16457	85843	46067
1987-88	35576	18394	97179	53120
1988-89	45614*	22131*	99777	59785

Note: Quantity in Tonnes; Value in Rs. lakhs
*Also include some production from Karnataka.

Source: Marine Products Export Development Authority, Cochin.

Export of Selected Marine Products

8.16 Frozen shrimp accounts for the leading share in the total exports, 37 per cent in volume and 79 per cent in terms of value. Frozen squid is the second leading item with 16 per cent and 6 per cent share in terms of volume and value respectively. The export of all other major items except sharkfins and fish maws suffered during the year under review. The itemwise details of the export of marine products from India are given in table 8.7.

TABLE 8.7

Marine Products: Itemwise Export, India—1987-88 & 1988-89.

Major Items	1987-88		1988-89	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
Frozen Shrimp	55736	42578.02	56835 (1.97)	47033.1 (10.465)
Frozen lobster	1863	2473.52	1663 (-10.74)	2360.44 (-4.57)
Frozen Cuttlefish/ Fillets	9195	2234.33	8262 (-10.15)	2343.57 (-5.03)
Fresh Frozen Fish	14904	3022.61	11234 (-24.62)	2844.81 (-5.88)
Frozen Squids	7621	1372.95	16374 (114.85)	3808.97 (177.43)
Dried Fish	5220	663.88	3633 (-30.4)	443.45 (-33.20)
Shark/Fins/Fish maws	273	482.53	315 (15.38)	583.23 (20.87)
Others	2367	295.55	1461 (-38.28)	367.73 (24.42)
Total	97179	53120.39	99777 (2.67)	59785.38 (12.55)

Notes: Figures in brackets represent percentage change over previous year.

Unit: Quantity in Tonnes, Value in Rs. lakhs

Source: Marine Products Export Development Authority, Cochin.

8.17 The export of frozen shrimp registered only a marginal growth of 1099 tonnes (2%) in volume and Rs. 44.55 crores (10.5%) in value during 1988-89. The trend in the export of frozen shrimp from India is given in table 8.8.

TABLE 8.8

Export of Frozen Shrimp: India—1983-81 to 1988-89

Year	Quantity (Tonnes)	Value (Rs. crores)	Unit value (Rs./Kg.)
(1)	(2)	(3)	(4)
1983-84	54414	314.81	57.8
1984-85	55398	329.70	59.5
1985-86	50349	329.82	65.5
1986-87	49203	377.93	76.8
1987-88	55736	425.78	76.4
1988-89	56835	470.33	82.8

Source: The Marine Products Export Development Authority Cochin.

8.18 Though Japan accounts for the largest share of 55.8 per cent in volume and 70 per cent in value, there is a steady decline in the export to Japan due to the growing customer preference for cultured shrimps from China, Thailand, Taiwan etc.

8.19 Another leading item of export is Frozen Squid, which recorded the highest growth in 1988-89 with 115 per cent in volume and 177 per cent in value over the previous year. The significant growth achieved in the export of frozen squid was largely responsible for the overall growth in export of sea foods.

Export of Marine Product: Through Cochin Port

8.20 Export through Cochin, Madras, Calcutta and Kandla has registered an increase during the year under review. The export of marine products through Cochin port has increased from 35576 tonnes in 1987-88 to 45614 tonnes in 1988-89, registering an increase of 28.22 per cent over the previous year. The corresponding value realisation has increased from Rs.18394 lakhs to Rs. 22131 lakhs indicating a growth rate of 20.32 per cent. During 1987-88 the share of Cochin port in total export of marine products from India was 36.6 per cent in terms of quantity and 34.6 per cent in value. During 1988-89 the respective shares have further increased to 45.7 per cent and to 37 per cent.

Direction of Exports

8.21 The export of Indian marine products to major market is given in table 8.9. Japan continued to be the leading market for Indian marine products followed by USA. Japan accounts for 36 per cent in quantity and 59.7 per cent in value in 1988-89. The share of USA is 13.6 per cent and 11.7 per cent respectively. However the export to both these markets did not pick up well. There has been a steady increase in the exports of marine products to UK and Spain which are the third and the fourth largest markets for India.

TABLE 8.9
Export of Marine Products: Major Markets
India-1988-89

Country	Quantity (tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)
USA	13531	7011.54
UK	6883	4284.12
Spain	10808	2880.17
France	4768	1440.80
Greece	3302	614.72
Netherlands	1200	864.03
Italy	4116	1509.61
Belgium	1270	381.30
Japan	35811	35684.09
Singapore	6329	1703.08
UAE	997	480.39
Kuwait	1458	469.82
Sri Lanka	3603	419.49
Others	5701	2042.22
Total	99777	59785.38

Source: The Marine Products Export Development Authority, Cochin.
Annual Report 1988-89.

Export of Spices from India

8.22 Spices and spices products are important foreign exchange earners for India. The share of spices in total export earnings from agricultural products increased from 5 per cent in the early eighties to about 10 per cent in 1987-88. The export earnings from spices increased steadily and reached an all time high of Rs. 298 crores in 1987-88. However, in 1988-89 even though there has been a substantial increase in the volume of spices exported (34%), the total value realisation has declined by 5 per cent and the unit value realisation by 29 per cent. This is mainly due to the steep fall in pepper prices in the international market, which contributes to about 70 per cent of the total export earnings from spices.

TABLE 8.10

Exports of Spices: India, 1960-61 to 1988-89

(Qty. M.Tons; Value '000 Rs.)

Years	Quantity	Value
(1)	(2)	(3)
1960-61	45653	163960
1965-66	62463	230544
1970-71	47906	388200
1975-76	61952	727248
1980-81	92538	1170550
1981-82	68375	925101
1982-83	75117	928541
1983-84	85835	1116622
1984-85	89155	2090221
1985-86	74501	2825208
1986-87	82827	2819877
1987-88	70279	2980803
1988-89	94437	2827905

Source: Spices Export Review, 1988-89. Spices Board, Cochin

8.23 Spices particularly pepper and cardamom (small) occupy a significant position in Kerala's agricultural economy, Pepper, Cardamom, Ginger and Turmeric are the major spices grown in Kerala. Almost the entire quantity of pepper and about 80 per cent of the cardamom exported from India are from Kerala. The total export earnings from spices for 1988-89 was Rs. 283 crores of which Kerala's share is estimated to be around Rs. 218 crores which is about 77 per cent of the total.

8.24 Item-wise details of export of spices during the year 1987-88 and 1988-89 are given in table 8.11. Black pepper continued to top the list by accounting for about 43 per cent in terms of volume and 66 per cent in terms of value. Other important items in terms of value realisation are seed spices (6.5%) spice oils and oleoresins (6.51%), turmeric (6.1%) chillies

(4.3%), cardamom (small) (3.6%), and ginger (3.3%). The trend in the export of spices from India 1984-85 to 1988-89 is given in Appendix-8.4.

TABLE 8.11
Item-wise Export of Spices: India, 1987-88 & 1988-89

Item	1987-88			1988-89		
	Q	V	UV	Q	V	UV
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Pepper	41011	24058	58.66	41065	18778	45.73
Cardamom (S)	270	340	125.93	787	1028	130.62
Cardamom (L)	155	70	45.26	431	186	43.16
Chillies	6122	333	13.61	5424	1206	22.23
Ginger (D)	2628	409	18.61	5198	922	17.74
Turmeric	8747	923	10.55	16518	1737	10.52
Curry powder	2559	438	17.12	2735	504	18.43
Seed spices	7709	1056	13.70	17535	1837	10.48
Other spices*	650	104	16.00	4257	251	5.90
Oils & Oleoresins	428	1497	349.77	487	1830	375.77
Total	70279	29808	42.41	94437	28279	29.94

Q—Quantity, in MT. V—Value, Rs. lakhs.
UV—Unit Value Rs/Kg. S—Small. L—Large D—Dry
Source: Spices Board, Cochin.

Black Pepper

8.25 Export of black pepper marginally increased in quantity, but substantially decreased in value. As against an export of 39600 MT valued Rs. 236 crores in 1987-88, it stood at 39200 MT valued at Rs. 183 crores in 1988-89. The fall in the unit value from Rs. 59.59 per kg. to Rs. 46.70 caused this decline in value realisation. The recent trend in the unit value of pepper is given in table 8.12.

TABLE 8.12
Export of pepper: Kerala: 1982-83 to 1988-89

Year	Quantity (M.T)	Value (Rs. crores)	Unit value (Rs.)
(1)	(2)	(3)	(4)
1982-83	22500	29.00	12.89
1983-84	25700	40.80	15.88
1984-85	25300	60.00	23.75
1985-86	37500	171.90	45.84
1986-87	36900	198.60	53.82
1987-88	39600	236.00	59.59
1988-89	39200	183.08	46.70

Source: Spices Board, Cochin.

8.26 The comparatively lower production of black pepper during 1986 and 1987 in major producing countries except India, created a short supply in the international markets. This resulted in an increase in international prices both in 1986-87 and 1987-88. But, India with a bumper crop of 65,000 MT in 1986 followed by 45,000 MT in 1987 could gain the advantage of this price situation. Both in 1986-87 and 1987-88 India realised a better f.o.b. unit value of Rs. 54 and Rs. 59 per kg. respectively. In 1988 total world production attained a record level of 174,000 MT with India's share around 65,000 MT. This higher world supply brought down the prices in the international markets which also got reflected in domestic prices. In 1988-89 the average domestic price at Cochin market was Rs. 38.72 per kg. as against Rs. 52.82 in 1987-88.

8.27 U.S.S.R. and U.S.A. remained the major markets for pepper in 1988-89 also. However, both these countries reduced their intake in 1988-89, U.S.S.R. from 17570 MT to 12539 MT and U.S.A. from 7228 MT to 4777 MT. U.S.S.R. whose annual consumption is estimated to be around 13000 MT. reduced their purchase in 1988-89 because of carry over stock from previous years.

Cardamom (small)

8.28 India's export of cardamom (small) increased considerably in 1988-89, owing to higher intake by U.S.S.R. and Saudi Arabia. The export of cardamom stood at 787 MT valued at Rs. 1028 lakhs as against 270 MT valued at Rs. 340 lakhs in 1987-88. However, the overall level of export remained substantially lower than the normal exports in the past years, primarily on account of less demand from the Middle East. About 61 per cent of the area under cardamom is in Kerala followed by Karnataka (30%) and Tamil Nadu (9%). Kerala contributes on an average 70 per cent of the national production and about 80 per cent of India's total exports of small cardamom as given in Table 8.13

TABLE 8.13
Export of Cardamom—Kerala and India 1980-81 to 1988-89

Year	Estimated export from Kerala		Total exports from India		% share of Kerala	
	Quantity	Value	Quantity	Value	Quantity	Value
(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	2383	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	88.0	89.0
1987-88	212	2.67	270	3.10	79.0	79.0
1988-89	628	8.20	787	10.28	80.0	80.0

Note: Quantity in MT; Value Rs. in Crores.
Source: Spices Board Cochin.

8.29 U.S.S.R. which consumers on an average 260 MT of cardamom (small) imported only 30 MT in 1987-88 because of higher intake in the last quarter of 1986-87. U.S.S.R. purchased 391 MT in 1988-89, a major portion in the early part of the year itself. Intake from Saudi Arabia was also higher because of the uncertainties in the Guatemalan supply.

Cardamon (large)

8.30 Export of cardamon (large) has also increased from 155 MT valued Rs. 70 lakhs in 1987-88 to 431 MT valued Rs. 186 lakhs in 1988-89 mostly due to the increased off take by Pakistan and Singapore.

Chillies

8.31 Eventhough India's export of chillies has declined. In terms of value realisation it was higher by Rs. 4 crores. As against an export of 6122 MT valued Rs. 833 lakhs in 1987-88, the export in 1988-89 was 5424 MT valued Rs. 1206 lakhs. The main reason for the shortfall export of chillies were (1) 2000 MT of chillies contracted for shipment to Sri Lanka could not be supplied fully before 31st March 1989. This was supplied only in April 1989. (2) The anticipated export of 3000 MT of chillies to Pakistan did not materialise as South Korea gifted the quantity to Pakistan. During the year a record f.o.b. unit value of Rs. 22.69 per kg. for chillies was realised.

Coir and Coir Products

8.32 Coir and Coir products contribute substantially to the foreign exchange earnings of the country. The trend in the quantity and value of export of coir and coir products are shown in table 8.14. The total export in 1988-89 is estimated at 24979 tonnes valued at Rs. 33.32 crores, compared to 25148 tonnes for Rs. 32.20 in 1987-88.

TABLE 8.14

Export of Coir and Coir Products: India—1960-61 to 1988-89

Year	Quantity (Tonnes)	Value (Rs. Crores)
(1)	(2)	(3)
1960-61	64782	8.55
1965-66	74234	11.09
1970-71	52218	13.87
1975-76	37284	19.35
1980-81	28610	25.55
1981-82	30079	26.94
1982-83	30133	26.17
1983-84	27949	24.84
1984-85	25795	26.42
1985-86	24672	32.85
1986-87	23214	31.44
1987-88	25148	32.20
1988-89	24979	33.32

Source: Coir Board, Cochin

8.33 The total exports from India over the years have shown a declining trend, eventhough there has been an increasing trend in the realisation. About 50 countries import coir products from India. Europe is the single largest market for coir products from India accounting for almost two-third of the total exports. Item-wise details of export of coir and coir products from Kerala are given in table 8.15 coir yarn and mats are the major items of export which together account for 81 per cent of the quantity and 73.5 per cent of the value.

TABLE 8.15

Export of Coir and Coir Products: Kerala 1986-87 to 1988-89

Item	1986-87		1987-88		1988-89	
	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coir Fibre	1	0.09	2	0.17	7	0.74
Coir Yarn	12105	1207.73	14078	1286.56	12598	1123.50
Coir Mats	7924	1354.70	6542	1110.03	7612	1325.81
Coir Mattings	2892	534.16	3217	603.80	2974	579.89
Coir Rugs and Carpets	436	40.13	1236	210.73	1714	289.07
Coir other sorts	21	3.31	21	2.89	28	3.87
Coir Rope Curled Coir	30	3.13	50	5.18	39	4.52
Curled Coir	..	..	*	0.30	..	..
Rubberised Coir	5	1.21	2	0.41	7	4.13
Total	23214	3144.46	25148	3219.80	24979	3331.53

Note: Quantity in Tonnes; Value Rs. in lakhs
*Negligible quantity

Source: Coir Board, Cochin.

Cashew

8.34 India is the world's leading producer and exporter of cashew kernels. India's share in the global market stood at almost 98 per cent in the 1950's but thereafter declined steadily to 86 per cent in 1984 and marginally increased to 88 per cent in 1988. A disquieting feature of the international market is the declining demand for cashew kernels. Table 8.15 shows the quantity of cashew kernels exported and value realised during 1960-61 to 1988-89.

TABLE 8.16

Export of Cashew Kernels: 1960-61 to 1988-89

Year	Quantity (MT)	Value (Rs. Crores)	Unit value (Rs./Kg)
(1)	(2)	(3)	(4)
1960-61	39436	18.47	5
1965-66	53793	28.76	5
1970-71	54074	55.82	10
1975-76	53640	76.13	14
1980-81	32805	141.09	43
1981-82	31357	186.95	60
1982-83	30195	132.28	44
1983-84	36897	150.87	41
1984-85	32439	180.54	56
1985-86	35153	215.27	61
1986-87	41759	334.11	80
1987-88	36949	322.71	87
1988-89	34023	276.48	82
1989-90(*)	29212	233.88	80

Note: Up to 1975-76, the figures correspond to Calendar Year
*From April to October only.

Sources: Cashew Bulletin, January 1990.

8.35 During 1988-89 the cashew kernels exported from India stood at 34023 MT valued at Rs. 276.48 crores registering a fall of 8.6 per cent in terms of quantity and 14.3 per cent in terms of value compared to the previous year. However, the trend is expected to be reversed during 1989-90. The export of cashew both in quantity and value, for the period April to October 1989 is about 38 per cent higher than that for the corresponding period for 1988.

8.36 Kerala, a major producer of cashew, has a near monopoly in India in the production and export of cashew, and accounts for more than 60 per cent of production of raw nuts and about 85-90 per cent of the total exports from the country as can be seen from table 8.17

TABLE 8.17

Export of Cashew Kernels: Kerala and India 1982-83 to 1988-89

Year	Kerala		India	
	Quantity (MT)	Value (Rs. Cr.)	Quantity (MT)	Value (Rs. Cr.)
(1)	(2)	(3)	(4)	(5)
1982-83	28075	122.44	30195	132.38
1983-84	35245	144.08	36897	150.87
1984-85	31409	174.47	32439	180.57
1985-86	31904	196.16	35153	215.27
1986-87	37508	302.81	41759	334.11
1987-88	33163	290.36	36949	322.71
1988-89	30234	245.74	34023	276.48

Source: Cashew Export Promotion Council.

Cashew Shell Liquid

8.37 The total exports of cashew shell liquid during 1988-89 amounted to 3,043 MT valued at Rs. 2.49 crores. This was 53 per cent less in quantity and 49 per cent in value as compared with the figures for the previous period. The unit export price in the review period was higher by 10 per cent and averaged at Rs. 8,184 per MT.

TABLE 8.18

Export of Cashew Shell Liquid: Kerala and India 1982-83 to 1988-89

Year	Kerala		India	
	Quantity (MT)	Value (Rs. Cr.)	Quantity (MT)	Value (Rs. Cr.)
(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	3607	2.42	6534	4.86
1988-89	890	0.63	3043	2.49

Source: Cashew Export Promotion Council.

Import of Raw Cashew nuts

8.38 Imports of raw cashew nuts during 1988-89 totalled 37,078 MT valued at Rs. 51.89 crores. This was less by 12.2 per cent in quantity and 22.8 per cent in value from the previous year. The unit import price during the review period averaged at Rs. 14 per Kg. as compared to Rs. 15.92 per kg. in the previous year.

TABLE 8.19

Import of Raw Cashewnuts: Kerala and India 1982-83 to 1988-89

Year	Kerala**		India	
	Quantity (MT)	Value (Rs.Cr.)	Quantity (MT)	Value (Rs. Cr.)
(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	27230	42.11	42256	67.25
1988-89	13962	20.86	37078	51.89

Note: **Export through Cochin Port.

Source: Cashew Export Promotion Council.

Cochin Export Processing Zone

8.39 The Cochin Export Processing Zone was approved by the Government of India, Ministry of Commerce in July 1983 under the export promotion strategy of developing a chain of Export Processing Zones in the country. The major infrastructural development works in the Zone have been completed.

The construction activities in Stage I and II except the Administrative Building are complete. Construction of two more factory sheds are in progress. The first phase of the project was estimated to cost Rs. 14.95 crores.

8.40 The CEPZ Board for Approvals has accorded sanction for 69 units to be established in the Zone. Of this approvals given to 17 units have been cancelled subsequently and one unit has been shifted to KAFTZ. During 1989-90 the CEPZ is targeted to have 17 production units and export worth Rs. 1500 lakhs. As against this target sixteen units have commenced production and export during the financial year (1-4-1989 to 28-2-1990) was of the order of Rs. 1037.21 lakhs. However over 97 per cent of the export was accounted by just two units. The operational units are under various product groups including Aromatic Chemicals, Tissue Culture Plants, Readymade Garments, Examination Gloves, Disposable Containers etc. The product-wise distribution of the approved units is given in Appendix 8.7.

8.41 The Government of Kerala besides providing infrastructural and institutional support to the Zone have also extended sales tax exemption on the sale of industrial inputs to the units in the Zone. In order to avoid delay in implementation the construction work in the Zone was declared as a Public Utility Service. A Zone co-ordination Committee was also constituted to help maintaining cordial labour relations. It is expected that by 1990-91 the developed area in the zone could be fully utilised.

CHAPTER 9

SOCIAL AND COMMUNITY SERVICES

An attempt to understand the development in Kerala is a matter of great interest to social scientists, when high literacy and good health standards in Asian countries such as Singapore, Taiwan, Hongkong and South Korea are associated with high percapita income, rapid economic growth, high proportion of the labour force in non-agricultural operations, higher employment, high nutritional levels etc., how Kerala could achieve this commendable progress in areas like health, education etc, with a lower per capita income and other socioeconomic situations which are entirely different. Also within the country, states like Punjab, Haryana etc. though have higher percapita incomes and low percentage of people below poverty line, could not achieve the level of development attained in Kerala in spheres like education, health, housing etc. In fact Kerala has followed a path of development different from the rest of the country.

9.2 The successive governments in the state have made rapid strides in the distribution of public goods. As far as the two most important sectors of social services viz., education and health are concerned, there have been notable efforts to extend them. This has been well reflected in the commitment of the state and the actual expenditure on education and health which is 37 per cent of the total revenue expenditure of the State according to 1989-90 budget. The relevant data from 1957-58 to 1989-90 are given in Table presented below:

Expenditure on Education and Health-1957-58 to 1989-90

(Rs. crores)

Year	Total Revenue Expenditure	Expenditure on education and health	Percentage of Column 3 to 2
(1)	(2)	(3)	(4)
1957-68	33	13	39.4
1960-61	45	21	46.7
1970-71	164	74	45.7
1980-83	783	371	47.4
1983-84	992	454	45.8
1984-85	1138	460	40.4
1985-86	1145	537	37.1
1986-87	1654	615	37.2
1987-88	1780	680	38.2
1988-89 (BE)	2028	751	37.0
1989-90 (BE)	2265	832	37.0

Education

9.3. Kerala has a unique record of very nearly achieving the constitutional requirement of universalisation of elementary education for the age group 5-14. The State has a literacy rate of 70.2 per cent according to 1981 Census, whereas the All India general literacy is as low as 36 per cent. The States next to Kerala are also way down at 46 to 47 per cent. Female literacy is the highest in Kerala and the difference from other states is even sharper than the combined literacy. The percentage of enrolment of girls is almost equal to that of boys, except in a few backward pockets. Also, enrolment among Scheduled Castes and Scheduled Tribes is almost on par with the general category.

School Education

9.4 The school education infrastructure in the State consisted of 12,141 schools comprising 6819 LP schools, 2890 UP schools and 2432 High Schools during 1988-99. Of the total 12141 schools, 4480 (36.9%) were in Government sector, 7341 (60.5%) were private aided schools and 320 (2.6%) private unaided schools. The details are given in Appendix 9.1.

9.5 It is reported that there were 835 uneconomic schools in the State during 1988-89 comprising 335 government schools and 500 private schools. This has become a major problem in the school education sector. A further analysis of the situation shows that Cannanore district had the highest number followed by Pathanamthitta. During the previous year the total uneconomic schools were 650. Appendix 9.2 presents the relevant data on uneconomic schools.

9.6 The total student strength in schools increased by 1.08 per cent, and in absolute terms it increased from 57.88 lakhs during 1987-88 to 58.52 lakhs during 1988-89. At the lower primary level there was reduction in strength from 26.37 lakhs in 1987-88 to 25.96 lakhs in 1988-89, at the UP level it increased to 18.47 lakhs from 18.05 lakhs in 1987-88 and at high school level the increase was 62,123 students. The net increase in strength during the year under review over the previous year was 63265 students. This is highlighted in Table 9.1.

9.7 Out of the total students of 58.52 lakhs the strength in urban area constituted 8.29 lakhs while that of the rural area stood at 50.23 lakhs (86 per cent). The details are given in Appendix 9.3. The total number of girl students stood at 28.64 lakhs, which represented 49 per cent of the total during 1988-89. There was an increase in the number of girl students from that of the previous years figure of 28.40 lakhs. The enrolment ratio during the year under review was 93.5 in the 5-9 age group and 85.2 in the 10-14, age group. The relevant data are given in Table 9.2. The standard-wise enrolment is furnished in Appendix 9.4.

TABLE 9.1
Enrolment in Schools—Stage-wise

Stage	1987-88 (Nos.)	Enrolment 1988-89 (Nos.)	Variation (Nos.)	Variation Per cent
(1)	(2)	(3)	(4)	(5)
Lower Primary	2637094	2596018	(-) 41076	(-) 1.58
Upper Primary	1805625	1847843	(+) 42218	(+) 2.28
Secondary	1345967	1408090	(+) 62123	(+) 4.41
Total	5788686	5851951	(+) 63265	(+) 1.08

TABLE 9.2
Enrolment Ratio—1988-89
(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	34.53	16.58	15.70	32.28	..	..	93.5
10-14	30.79	13.30	12.94	26.24	..	..	85.2

* Projected population by Sri Rama kumar, University of Kerala
Source: Directorate of Public Instruction

Teachers

9.9 The total number of teachers in 1989, both trained and untrained, was 1.91 lakhs. This included 1,84,325 trained teachers and 6,642 untrained teachers. Of the total number of teachers 72,164 (38 percent) were in the government sector and 1,18,773 in private sector. Details of staff strength in schools are given in Appendix 9.5.

9.10 A revised list of 1343 priority works for construction of school buildings consisting of 509 for LP Schools 371 UP School and 463 High Schools was prepared. The details are furnished in Appendix 9.6.

9.11 At present the vocational Higher Secondary Education at +2 level is implemented in 80 Government High Schools and 20 Technical High Schools. The admission capacity of each institution is 50 students at the rate of 25 students per course per institute (two courses in every institute). The duration of the course is two years with public examination at the end of each year. During the year 1988-89 the total admission capacity under this course was 3619 consisting of 2175 boys and 1444 girls. The scheme was under implementation in 73 schools. Details of enrolment in Vocational Education during 1988-89 are furnished in Appendix 9.7.

Examinations

9.12 A total number of 4.4 lakh students appeared for the SSLC Examination during March 1988 of which 2.2 lakhs (49.3%) passed. Out of the 2.2 lakh

students passed, girls stood at 1.07 lakhs (45.8%) and the boys 1.09 (53.2%) lakhs. A further analysis would bring out the fact that the number of girl students appeared for SSLC during the year under review was 2,34,724 and the percentage passed was 46 as against 2,41,478 appeared and 46.55 percentage passed during the previous year. Data regarding the students appeared for S.S.L.C. Examination are furnished in Appendix 9.8.

University Education

9.13 The total number of Arts and Science Colleges in the state during 1988-89 stood at 172, consisting of 40 government colleges and 132 private colleges. There were 44 colleges under the University of Kerala, 57 under Mahatma Gandhi University and 71 under University of Calicut. As a matter of fact, no new Colleges were started from 1982-83 onwards. The district wise distribution of Arts and Science colleges in the state is given in Appendix 9.9.

9.14 The student strength at the University level aggregated to 3.29 lakhs during the year under review as against about 3.25 lakhs in the previous year. The relevant data are given in Table 9.3. Enrolment in the three universities together came to 1.48 lakhs, of which girls were 78,851 (53%). Enrolment at pre degree level was 1.02 lakhs, at degree level 41,578 and at Post Graduate level 4747. The enrolment of girl students accounted to 52,888 at Pre degree level, 23,159 at degree level and 2804 at Post graduate level and the percentages of enrolment of girl students were 52,56 and 59 respectively. The relevant data on

Arts and Science Colleges are given in Table 9.4. The Subjectwise intake in Universities is presented in Appendix 9.10.

every year through private registration. The details of private registrants in Kerala and Calicut Universities are presented in Appendix 9.11.

9.15 Over and above the enrolment in the regular system of education, the government allowed private registrations to cater to those students who could not get admission to the regular courses in Colleges. It is reported that more than one lakh candidates appear

The number of teachers in the Arts and Science Colleges in the State shows a slight fall from that of the previous year i.e. from 13570 to 13465. The details are furnished in Table 9.5.

TABLE 9.3

Strength of Students by stages in Arts & Science Colleges in Kerala during 1988-89

Name of University	No. of Colleges	Pre-Degree Boys	Degree Girls	Total	Degree			Post-Graduate			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 University	44	31628	34897	66525	17842	23327	41169	1108	1798	2906	50578	60022	110600
Mahatma Gandhi University	57	29766	36763	66529	15317	23261	38578	1435	2454	3889	46518	62478	108996
Calicut University	71	36365	32486	68851	19256	18752	38008	1339	1270	2609	56960	52508	109468
Total	172	97759	104146	201905	52415	65340	117755	3882	5522	9404	154056	175008	329064

Source: Directorate of collegiate education

TABLE 9.4

Enrolment by Stages in Arts & Science Colleges in Kerala 1988-89

Name of University	No. of Colleges	Pre-Degree			Enrolment 1988-89			1988-89		Total	Boys	Total	Total
		Boys	Girls	Total	Boys	Girls	Total	Post-Graduate Boys	Girls				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Kerala	44	16040	17855	33895	6377	8167	14544	549	933	1482	22966	26955	49921
Mahatma Gandhi	57	15301	18437	33738	5294	8228	13522	687	1210	1897	21282	27875	49157
Calicut	71	18377	16596	34973	6749	6764	13513	707	661	1368	25833	24021	49854
Total	172	49718	52888	102606	18420	23159	41579	1943	2804	4747	70081	78851	148932

Source: Directorate of Collegiate Education

TABLE 9.5

Number of teachers in Arts and Science Colleges—1987-88 and 1988-89

Name of University	Number of Teachers					
	1987-88			1988-89		
	Men	Women	Total	Men	Women	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Kerala	2569	1720	4289	2273	1504	3777
2. Calicut	2988	1585	4573	3353	1639	4992
3. Mahatma Gandhi	3054	1654	4708	3155	1541	4696
Total	8611	4959	13570	8781	4684	13465

Source: Directorate of Collegiate Education

Technical Education

9.16 The Technical Education infrastructure in the state consists of 8 Engineering Colleges, 47 Technical High Schools, 28 Polytechnics and 19 Prevocational Training Centres. During 1988-89 three polytechnics were started. The total strength in the engineering colleges was 10,434 of which the girls students accounted to only 2000. The annual intake in engineering colleges was 2656. Details regarding number of engineering colleges, students strength, enrolment etc. are presented in Appendix 9.12.

9.17 Out of the total number of 28 polytechnics, 22 came under government sector and the rest under private sector. The total students strength of polytechnics increased from 10,427 during 1987-88 to 14,225 during 88-89. The girl students constituted 3171 i.e. 22 per cent of the total. It may be noted that the annual intake in polytechnics was 4231 during 1988-89. The total number of teachers in the polytechnics during 1988-89 increased to 1307 registering a slight increase over that of the previous year.

9.18 The students strength in Technical High Schools during the year under review stood at 7833, of which 1020 were girl students. The intake capacity in Technical High Schools was 2570. The teachers in the technical high schools together constituted 795. The number of technical High Schools, Polytechnics, Engineering Colleges, the enrolment position and details of Teachers in these institutions are presented in Appendices 9.13 to 9.15. Also the intake and out turn of Engineering Colleges, Polytechnics and Technical High Schools are given in Appendix 9.16. The course wise intake and outturn at degree and postgraduate levels are given Appendix 9.17 and 9.18 respectively.

9.19 The Kerala State Science and Technology Museum, Institute of Human Resources Development

in Electronics and Lal Bahadur Sastry Centre for Science and Technology are the major autonomous bodies under Technical Education Sector. The IHRD has taken significant steps in Electronic Education by starting a Model Polytechnic, (during 1988) at Badagara and a Model Engineering College at Cochin during 1989. Besides, food craft institutes offered courses in Canning, food preservation, house-keeping etc.

Expenditure on Education

9.20 The total expenditure on education during 1988-89 amounted to Rs. 549.31 crores, (Revised Estimate-1988-89) as against Rs. 503.33 crores during the previous year. Out of the total expenditure on education in 1988-89, 51.64 per cent was on primary education, while the share of secondary education was 29.16 per cent. The expenditure on university education increased from Rs. 68 crores during 1987-88 to Rs. 73 crores during 1988-89. Expenditure on Technical Education increased to Rs. 21 crores during 1988-89 from Rs. 20 crores during the previous year.

9.21 The per capita Government expenditure on education in Kerala registered an increase from Rs. 181 during 1987-88 to Rs. 192 during 1988-89.

9.22 The details of expenditure on education are furnished in Table 9.6, and that of per capita expenditure over the years in Table 9.7. The cost of education per pupil at the primary stage increased from Rs. 54.17 in 1966-67 to Rs. 638.32 in 1988-89. At the secondary stage the cost per pupil went up to Rs. 1137 in 1988-89 from Rs. 103.81 in 1966-67. Relevant details are furnished in Table 9.8. The total and per capita expenditure (state wise) on education are given in Appendix 9.19.

TABLE 9.6
Expenditure on Education Stagewise 1987-88 & 1988-89

Stage	Plan	(Accounts) 1987-88		Total	1988-89 Revised Estimate)	
		Non-plan	Total		Plan	Non-plan
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I Primary Education	1502.22	24752.36	26254.58 (52.16)	2185.40	26180.98	28366.38 (51.64)
II Secondary Education	193.84	14486.48	14680.32 (29.16)	241.31	15774.34	16015.65 (29.16)
III University and other Higher Education	332.44	6485.32	6817.76 (13.55)	285.25	7060.92	7346.17 (13.37)
IV Adult Education	126.30	18.43	144.73 (0.29)	200.00	1.68	201.68 (0.37)
V Language Development	36.02	195.61	231.63 (0.46)	34.00	238.70	272.70 (0.50)
VI General (Research & Training)	11.86	129.71	141.57 (0.28)	455.01	103.73	558.74 (1.02)
VII Technical Education	632.21	1431.18	2063.39 (4.10)	638.73	1531.31	2170.04 (3.94)
Total	2834.89*	47499.09	50333.98 (100.00)	4039.70*	50891.66	54931.36 (100.00)

Figures in bracket indicate percentage to total
Source: Detailed Budget—1989-90.

* Includes Centre's share for Centrally Sponsored Schemes.

TABLE 9.7
Per capita Government Expenditure on Education in Kerala

Year	Population (lakhs)	Government expenditure on education (Rs. lakhs)	Index of Growth	Per capita expenditure (Rs.)	Index of Growth
(1)	(2)	(3)	(4)	(5)	(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	30.96	285
1976-77	239.50	14102.81	760	58.88	549
1980-81	253.84	21098.54	1137	83.12	775
1981-82	234.03	24251.00	1307	95.46	890
1982-83	239.49	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	274.06*	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
1988-89	286.07*	54931.36	2962	192.02	1791

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

TABLE 9.8
Cost of Education per Pupil from 1966-67 to 1988-89

Year	Primary Stage	Percentage increase from previous year	Secondary Stage	Percentage increase from previous year
(1)	(2)	(3)	(4)	(5)
1966-67	54.17	..	103.81	..
1980-81	285.24	..	454.25	..
1981-82	298.18	12.41	536.37	18.08
1982-83	320.19	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	5.97	1130.00	8.34
1988-89	638.32	6.98	1137.00	0.62

Health

9.23 The successive Governments in Kerala have been giving more attention for providing health care services to the people. As a result of these developmental efforts, the State has achieved a very unique position. The life expectancy at birth in Kerala is 67 years for males and 70 years for females in 1987 as against the All India rates of 55 years for males and 54 years for females. The maternal mortality rate in Kerala is below 2, whereas the All India figure is 5.8. The health standards achieved in the State are almost comparable to that of some of the developed countries. These can be seen from some of the basic health development indicators presented in Table 9.9. It can be seen that the birth rate, death rate and infant mortality rate have decreased from 22.4, 6.7 and 27 in 1986 to 21.0, 6.0 and 26 respectively in 1987.

TABLE 9.9
Birth, Death and Infant Mortality Rates in Kerala

Year	Birth rate per thousand population	Death rate per thousand 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
1987	21.0	6.0	26

Health care

Infrastructure

9.24 The health infrastructure under allopathy during 1989-90 consisted of 1126 institutions with 37,100 beds in 1988-89 as against 1066 institutions with 36,668 beds in 1987-88. There were 143 hospitals with 27,567 beds, 740 primary health centres including 5M.C.H. units with 3686 beds, 72 dispensaries with 239 beds, 20 T.B. centres/clinics with 313 beds, 11 leprosy control units, 29 community health centres with 2292 beds, 77 subsidiary health centres with 629 beds and 34 grant-in-aid institutions with 2374 beds. The number of primary health centres has increased from 577 in 1987-88 to 740 in 1988-89. The district-wise and category wise distribution of medical institutions and beds are given in Appendix 9.20. Though the total number of beds has increased from that of the previous year, the number of beds per lakh of population has decreased to 126 from 127 in 1987-88 which is due to the increase in the estimated population. The estimated population of 1988 was 288.39 lakhs which increased to 293.58 lakhs in 1989.

Patients Treated in health institutions

9.25 the total number of inpatients treated under allopathy during the year was 14.48 lakhs and the number of out-patients treated was 282.16 lakhs. Thus a total of more than 296 lakh patients had taken treatment during 1988-89. The statement showing the number of patients treated for principal diseases during 1987-88 and 1988-89 is given in Appendix 9.21

TABLE 9.10
Number of Medical Institutions and Beds Under Allopathy in Kerala—1980-81 to 1988-89

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)
1980-81	968	100	32,447	100	127
1981-82	991	102	32,532	100	126
1982-83	1005	104	32,880	101	125
1983-84	1009	104	33,380	103	124
1984-85	1014	105	33,529	103	124
1985-86	1015	105	35,744	110	128
1986-87	1038	107	36,404	112	128
1987-88	1066	110	36,668	113	127
1988-89	1126	116	37100	114	126*

Source: D.H.S.

*Based on projected population of Kerala in 1989—Department & of Economics and Statistics.

TABLE 9.11

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

District	No. of Medical Institutions		Number of Beds		No. of Beds per lakh of population.	
	1987-88	1988-89	1987-88	1988-89	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	102	107	6529	6550	222	219
Quilon	73	80	1973	1973	79	78
Alleppey	77	83	3943	4043	186	188
Pathanamthitta	52	57	1501	1262	119	99
Kottayam	72	75	3871	3506	201	179
Idukki	52	55	499	609	45	54
Ernakulam	106	110	3796	3846	132	132
Trichur	102	106	3790	3929	137	140
Palghat	88	92	1595	1705	68	72
Malappuram	99	104	1346	1816	49	65
Kozhikode	71	76	4224	4224	166	163
Wayanad	34	36	590	590	94	92
Cannanore	86	89	2403	2399	110	108
Kasaragode	52	56	608	648	61	64
Kerala	1066	1126	36,668	37,100	127	126

Source: D.H.S.

TABLE 9.12

Number of Patients Treated Under Allopathy—District-wise

District	No. of patients treated during 1988-89		
	Inpatients	Outpatients	Total
(1)	(2)	(3)	(4)
Trivandrum	1,82,030	36,50,799	38,32,829
Quilon	1,26,384	21,69,460	22,95,844
Alleppey	1,31,885	21,35,612	22,67,497
Pathanamthitta	36,507	10,43,262	10,79,769
Kottayam	99,956	22,00,920	23,00,876
Idukki	22,987	9,93,183	10,16,170
Ernakulam	1,61,705	31,12,591	32,74,296
Trichur	1,26,122	25,55,135	26,81,257
Palghat	1,23,686	23,61,715	24,85,401
Malappuram	1,16,397	28,12,748	29,29,145
Kozhikode	1,28,308	23,42,011	24,70,319
Wayanad	49,300	5,95,426	6,44,726
Cannanore	1,03,014	15,17,592	16,20,606
Kasaragode	39,770	7,25,996	7,65,766
Kerala	14,48,051	2,82,16,450	2,96,64,501

TABLE 9.13

Medical and Paramedical personnel in the Health Services Department

Sl. No.	Category	1987	1988	1989
	(1)	(2)	(3)	(4)
1.	Medical Officers	3514	2831*	2903
2.	Dentists	71	64	64
3.	Senior Nurses	1024	1733	1761
4.	Junior Nurses	4589	4416	4486
5.	Lady Health Inspectors	1009	690	690
6.	Pharmacists	1731	1620	1620
7.	Junior P.H. Nurses (ANMS)	4236	4484	4484
8.	Junior Health Inspectors	3381	3381	3381
9.	Health Inspectors	845	845	845
	Total:	20400	20064	20234

*The decrease is due to the separation of ESI from DHS

Source: DHS

TABLE 9.14

Details of Registered Medical Practitioners in the State

System	Class of Registration	Number in	
		1987-88	1988-89
(1)	(2)	(3)	(4)
1. Modern Medicine	A	15,847	16754
	B	635	635
	Listed	204	204
	Sub Total	16,686	17,593
2. Homoeopathy	A	3,246	3,403
	B	1,486	1,486
	Listed	279	279
	Sub Total	5,011	5,168
3. Ayurveda	A	5,348	5,551
	B	6,100	6,100
	Listed	599	599
	Sub Total	12,047	12,250
4. Sidha	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	35,121	36,388

Source:—Registrar of Medical Councils

TABLE 9.15

List of Registered Paramedical Practitioners

Sl.No.	Category	(Numbers)					
		1987-88			1988-89		
(1)	(2)	Male	Female	Total	Male	Female	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Nurse	251	12,022	12,273	257	12,356	12,613
2.	Midwife	..	10,962	10,962	..	11,301	11,301
3.	Nurses and Midwives (Integrated)	..	9,512	9,512	..	10,687	10,687
4.	Auxiliary Nurse—midwives	..	7,514	7,514	..	8,238	8,238
5.	Health Visitors	..	316	316	..	318	318
	Grand Total	251	40,326	40,577	257	42,900	43,157

Source: Registrar of Medical Councils.

Medical Education

9.26 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 and the other at Calicut, together having an intake of 70. The three nursing colleges at Trivandrum, Kottayam and Calicut have a combined intake capacity of 75 students. There are about 695 seats for different paramedical courses. The details of personnel (clinical/Non-clinical) under the Directorate of Medical Education are furnished in Appendix 9.22. The details of various courses conducted in the Medical Colleges together with the intake capacity are presented in Appendices 9.23 and 9.24.

Nursing Education

9.27 The Directorate of Health Services, Medical Colleges and approved private nursing schools are engaged in the training of nurses. The annual admission for nursing courses in different categories is given below:—

1. Integrated (General nurses cum Midwives—3½ years course)

Institution	No. of institutions	Total annual intake
(1)	(2)	(3)
Government Nursing Schools	9	270
Private Nursing Schools	50	1036
Medical College, Calicut		30
		1336

2. Junior Public Health Nurses (18 months course)

Institutions	No. of Institutions	Total annual intake
Government Nursing Schools	13	625
Private Nursing Schools	18	453
		1078

3. B.Sc. Nursing (4 years course)

	No. of seats
Medical College, Trivandrum	25
Medical College, Calicut	25
Medical College, Kottayam	25
	75

M.Sc. Nursing is conducted only in Trivandrum Medical College with an annual intake of 4.

9.28. Under the General Nurses Category, a total of 22,611 nurses are registered with the Nursing Council. Of this, 12,575 persons studied the nursing training outside Kerala State. This amounts to 55 percent of the total nurses registered.

Indian Systems of Medicine

Ayurveda

9.29 There were 101 Ayurveda hospitals with 1829 beds and 496 dispensaries at the end of the year 1987-88. During 1988-89 two more dispensaries were started. Thus the infrastructure under Ayurveda stood at 101 hospitals and 498 dispensaries. This included 7 Siddha dispensaries, one marma hospital, one panchakarma hospital and one nature cure hospital.

The total number of patients treated during the year, 1988-89 was nearly 41 lakhs. The district-wise details of institutions, beds, and the number of patients treated are given, in Appendix 9.25.

Ayurveda Education

9.30 There are two Ayurveda Colleges in the Government sector with an annual intake of 30 in Ayurveda College, Trivandrum and 30 in Ayurveda College, Tripunithura for BAMS and 24 for M.D. (A.Y.). M.D. education is imparted only in the Ayurveda College, Trivandrum. Besides, there are two private colleges at Kottakkal and Ollur having annual intake of 30 students in each college.

TABLE 9.16

Courses offered and admission to the courses in the Ayurveda Colleges during 1988-89

Course	Nature of Course (Degree/Diploma/Certificate)	Annual intake of students		
		Total Number	SC. students	S.T. students
(1)	(2)	(3)	(4)	(5)
<i>Ayurveda College Trivandrum</i>				
1. Ayurveda Nurses Training Course (1 year)	Certificate	63	7	..
2. Ayurveda Pharmacist Training Course (1 year)	Certificate	52	9	..
3. M.D. Course (3 years)	P.G. Degree			
	I year	25	3	..
	II year	22	3	..
	III year	20	..	..
B.A.M.S. (5 years)	Degree			
	I year	50	4	..
	II year	46	3	..
	III year	44	5	..
	IV year	47	6	..
	V year	50	5	..
<i>Ayurveda College Tripunithura</i>				
B.A.M.S. (5 years)	Degree	30	1	..

Homoeopathy

9.31 The number of homoeopathic hospitals remained at 24 with 715 beds as in the previous year. The number of dispensaries has increased from 253 in 1987-88 to 262 in 1988-89. During the period under review 3 homoeo rural dispensaries were started under general sector, 2 dispensaries under Special Component Plan and 2 under Tribal Sub Plan. The details of patients treated and institutions are furnished in Appendix 9.26.

9.32 There are six homoeopathic colleges in the State of which two are in the Government sector and the remaining are in the private sector. Of these three are offering degree courses and 3 diploma courses. Enrolment of students in medical and paramedical courses under homoeopathy is furnished in the following table:

TABLE 9.17

Enrolment of Students in medical and paramedical Courses during 1988-89

Course	Students in 1988-89	
	Total	Of which SC/ST.
(1)	(2)	(3)
1. B.H.M.S. (Degree)	150	22%
2. D.H.M.S. (Diploma)	245	20%
3. Nurse-cum-Pharmacist training Course	61	10%

Family Welfare Programme:

9.33 The ultimate aim of the policy of Government of India is to reduce net reproduction rate (NRR) to one by 2000 A.D. The present rate is 1.3 for Kerala as against 1.67 for All India. The percentage of couples effectively protected as on March 1988 is 46.3 for Kerala as against 39.8 for All India.

9.34 The family welfare services are rendered to the public through a net work of 83 urban main centres and 5094 rural sub centres including 77 post partum centres in different districts. There are 2 regional family welfare and health training centres, 2 lady health visitors training centres and 7 ANM training schools. A teaching/training centre (Laparoscopic) was sanctioned at district hospital, Ernakulam during 1988-89.

9.35 As regards the achievements, the number of sterilisation operations increased from 1,95,298 in 1987-88 to 2,07,457 in 1988-89 of which 1,35,906 (65.5%) were P.P.S., 43,789 (21.1%) were laproscopy, 21,665 (10.5%) minilap and the remaining 6097 (2.9%) vasectomies. The districtwise details on family welfare programme for 1988-89 are furnished in Appendix 9.17. The target and achievement of family welfare programmes for 1988-89 are given in Appendix 9.28 District-wise distribution of the F.W. Centres and the expenditure under family welfare programme since 1980-81 are given in the following tables:

TABLE 9.18

Number of Family Welfare Centres as on 1-1-1990 District-Wise

District	Urban	Rural	Total
	Main Centres	Sub Centres	
(1)	(2)	(3)	(4)
Trivandrum.	10	455	465
Quilon	5	449	454
Alleppey	9	368	377
Pathanamthitta	5	260	265
Kottayam	6	359	365
Idukki	3	231	234
Ernakulam	10	351	361
Trichur	8	492	500
Palghat	6	471	477
Malappuram	7	508	515
Kozhikode	4	389	393
Wayanad	3	204	207
Cannanore	5	352	357
Kasaragode	2	205	207
Kerala	83	5094	5177

Source: D.H.S.

TABLE 9.19

Expenditure on Family Welfare Programme

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	3370.22
1988-89 (R.E.)	5655.66

Source: Budget Document.

Trend in Government Expenditure on Health

9.36. The expenditure on Medical and Public Health has gone up by 12.3 percent from Rs. 11739.20 lakhs in 1987-88 to Rs. 13,186.87 lakhs in 1988-89. During 1988-89, allopathy system accounted for 89.57 percent while Ayurveda, Sidha and Homoeopathy systems shared 8.07 percent, 0.04 percent and 2.32 percent respectively. The percapita expenditure on health, including family welfare, increased from Rs. 52.39 in 1987-88 to Rs. 64.18 in 1988-89. (Tables 9.21 and 9.22). A comparative statement showing State-wise total and percapita expenditure on Health from 1970-71 to 1987-88 is given in Appendix 9.29. The total expenditure on health in Kerala increased from Rs. 13.6 crores in 1971-72 to Rs. 132 crores in 1988-89. The relevant data are given in Table 9.20.

TABLE 9.20

Plan and Non-Plan expenditure on Medical and Public Health in Kerala

Year	(Rs. in lakhs)		
	Plan	Non-Plan	Total
(1)	(2)	(3)	(4)
1971-72	162.79	1199.22	1362.01
1972-73	209.02	1351.17	1560.19
1973-74	243.59	1394.82	1638.41
1974-75	180.46	2022.17	2202.63
1975-76	230.71	2527.38	2758.09
1976-77	236.87	2678.67	2915.54
1977-78	306.96	2867.83	3174.79
1978-79	525.66	3051.48	3577.14
1979-80	472.51	3647.19	4119.70
1980-81	651.38	4229.27	4880.65
1981-82	905.97	4936.88	5842.85
1982-83	880.10	5058.12	5938.22
1983-84	1044.41	5935.02	6979.43
1984-85	1074.00	6354.81	7428.81
1985-86	1102.50	8754.37	9856.87
1986-87	1799.34	9576.09	11375.93
1987-88	1532.08	10207.12	11739.20
1988-89 R.E.	1486.12	11700.75	13186.87
1989-90 B.E.	1938.20	12661.05	14599.25

TABLE 9.21

Expenditure under Health other than Family Welfare

Sector	1987-88 (Accounts)			1988-89 (R. E.)		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Allopathy	1310.14	9243.48	10553.62 (89.90)	1277.50	10534.21	11811.71 (89.57)
2. Ayurveda	125.07	778.93	904.00 (7.70)	118.12	946.05	1064.17 (8.07)
3. Siddha	4.88	3.44	8.32 (0.07)	1.00	4.29	5.29 (0.04)
4. Homoeopathy	91.99	181.27	273.26 (2.33)	89.50	216.20	305.70 (2.32)
Total	1532.08	10207.12	11739.20 (100.00)	1486.12	11700.75	13186.87 (100.00)

(Figures in bracket indicate percentage to total)

TABLE—9.22

Per capita Expenditure on Medical and Public Health

Year	Population (lakhs)	Expenditure on Health including Family Welfare (Rs. in lakhs)	Index of Growth	Expenditure per head (Rs.)	Index of Growth
(1)	(2)	(3)	(4)	(5)	(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	15109.42	311	52.39	274
1988-89	293.58*	18842.53 (R. E.)	388	64.18	335

Source: Projected Population of Kerala—Department of Economics and Statistics.

Housing

9.37 There has been a shift in approach in the housing sector in recent years and the major effort of the Government is directed towards housing schemes for the economically weaker sections. A notable feature is that institutional finance has come to play an increasing role. In Kerala, over 20 agencies including some autonomous institutions and government departments are implementing housing programmes. Among the autonomous bodies the Kerala State Housing Board, Kerala State Housing Co-operative Federation and Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes are the major ones.

9.38 Although 9 housing schemes are currently implemented by the Housing Board, the public housing scheme and cash loan schemes are the important ones. Under the former, land is acquired and developed, provide necessary infrastructure facilities and then divide the acquired land into plots. Allotment is made in two categories either as plots or with constructed houses, as the case may be, depending on the type of registration on a priority basis to the applicants belonging to various income groups who were registered under the scheme. During the plan the Board has constructed 488 individual houses. The State Housing Board has also launched a housing scheme to help the people belonging to the Low Income Group whose monthly income is in the range of Rs. 701 to Rs. 1500. They are given loan to construct houses. The maximum amount of loan will be Rs. 20,400, and the rate of interest charged will be 9 per cent.

Under the cash loan scheme an amount of Rs. 141.11 lakhs was disbursed during 1988-89 and the scheme covered 592 persons. The Housing Board received Rs. 3606 lakhs from HUDCO for the loan component under various schemes.

9.39 The Kerala State Development Corporation for SC/ST is presently implementing three schemes which were started during 1980, 1984 and 1988. The scheme which was started during 1988, envisages the construction of 10000 houses each costing Rs.8500. According to the scheme each beneficiary will get Rs. 2500 as subsidy and Rs. 4500 as HUDCO loan. The balance amount of Rs. 1500 will be contributed by the beneficiary in the form of labour, material or cash. Up to 1988 the Corporation has extended financial assistance for the construction of 29,088 houses. During 1988-89 construction of 2500 houses was started and of which 675 were completed.

9.40 Kerala State Co-operative Housing Federation Ltd. the central financing agency in the field of co-operative housing, provide financial assistance to 207 primary housing societies affiliated to it. Issue of shares and debentures and borrowings from LIC and HUDCO are the main sources of finance of the federation. As on 31-3-1989 it has disbursed an amount of Rs. 10843.94 lakhs for the construction of 43,699 houses. During 1988-89 alone it has disbursed Rs. 1456 lakhs for the construction of 6716 houses. Out of the total houses assisted 33,436 houses were completed till 31-3-1989 and the construction work in respect of the remaining 10,263 has been progressing.

9.41 The Board of Revenue is the major government department engaged in housing activity. The major Schemes implemented by the Board of Revenue are distribution of house sites to landless rural workers and the Rehabilitation Housing Scheme. During 1988-89, 2903 house sites were distributed under this scheme for which the expenditure incurred was Rs. 150.92 lakhs. Of the total beneficiaries 1291 belonged SC/ST. During the year 852 rural workers including 222 from SC/ST were also given financial assistance for the construction of houses. The achievements under MNP Schemes are presented in Table 9.23.

TABLE 9.23

Housing Scheme (MNP) implemented by the Board of Revenue

Year	Allotment of sites		Expenditure		Construction of Houses		
	No. of allotted sites	S.C.	S.T.	(Rs. lakhs)	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
1988-89	2903	1291	NA	150.92	852	222	NA

9.42 The Rehabilitation housing scheme was started during 1985 and is being implemented in phases. The First Phase has almost been completed. The Second Phase will be completed soon and the third phase of the programme is being implemented presently. During the year under review 29981 houses were constructed under this scheme.

9.43 During the period under review 2350 government employees were given house building advance. The scheme is implemented by the Finance Department. The total amount disbursed for this purpose was Rs. 7.93 crores during 1988-89. It has to be noted that applications received upto 30-11-1987 under general category, applications received upto 31-1-1988 under the category of class IV/SC/ST/physically handicapped and applications received up to 31-3-1988 under the category of over 45 years of age were cleared. All applications received up to 31-3-1988 for additional advance were also sanctioned.

9.44 During 1988-89 the Scheduled Caste Development Department has given financial assistance for the construction of 957 houses incurring an expenditure of Rs. 55.88 lakhs. During the same period the Tribal Development Department has incurred an expenditure of Rs. 35.79 lakhs on Tribal housings. The number of houses constructed during the year was 377. Tribal housing scheme is fully funded by the Government. Besides, 8554 houses under RLEGP and 9451 houses under NREP were constructed during 1988-89.

TABLE 9.24

Achievement in Housing-Major Schemes

Sl. No.	Name of the Scheme	Expenditure		Physical Achievement	
		1987-88	1988-89	1987-88	1988-89
(1)	(1)	(2)	(3)	(4)	(5)
1.	Provision of house sites to rural landless workers	95.86	150.92	1869	2903
2.	Huts/Houses for rural workers	11.39	33.33	366	852

	(1)	(2)	(3)	(4)	(5)
3. Middle Income Group Housing		13.82	25.00	22	27
4. Rental Housing Scheme		8.64	13.96	..	11
5. Public Housing Scheme	383.93	438.05		544	488
6. Scheduled Caste Development Corporation	19.78	75.75		1916	675
7. Tribal Welfare Department	40.27	35.79		350	377
8. Scheduled Caste Development Department	56.50	55.88		1166	957
9. Kerala Fishermen Welfare Corporation	65.00	..		3870	6143
10. Kerala State Co-operative Housing Federation	1380	1456		8658	6716
11. Rehabilitation Housing Scheme	..	..		35000	29981

9.45 A review of the housing programmes will make it clear that the housing policy in the state was formulated with a view to extending all possible assistance to the poor and weaker sections of the community for constructing their own houses. During the period under report about 75,000 new houses were constructed in the State, with Government assistance including those constructed under NREP and RLEGP. The relevant data are given in Table 9.24.

Water Supply and Sanitation

9.46 Provision of drinking water has been a major concern over the years of development effort. Over 70 per cent of the urban population and 33 per cent of the rural population could be covered under protected water supply. During the last ten years the Government have taken up more than 1400 schemes both in the rural and in the urban sectors.

Rural Water Supply

9.47 According to 1985 figures, out of 1219 villages in the State 1196 were identified as problem villages. Of this 1147 were partially covered, six fully covered and 43 uncovered. As on 31-3-1989, 30 problem villages have been additionally covered, leaving 13 villages without any coverage. As on 31-3-1989, the percentage of rural population covered has increased to 33 from 30.5 in 1988. Kerala ranks 13th among major states in regard to coverage of problem villages. This is reflected in the data furnished in Appendix 9.30.

During 1988-89 there were 1364 schemes in operation in the State. Of these 50 were completed during that year. District wise details on the number of schemes in operation and schemes completed during 1988-89 are presented in Table 9.25.

TABLE 9.25

Number of Rural water supply schemes in operation and schemes completed during 1988-89

Sl. No.	District	No. of schemes in operation during 1988-89	No. of schemes completed during 1988-89
	(1)	(2)	(3)
1.	Trivandrum	83	2
2.	Quilon	63	3
3.	Pathanamthitta	39	6
4.	Alleppey	81	6
5.	Kottayam	100	6
6.	Idukki	107	1
7.	Ernakulam	119	2
8.	Trichur	175	1
9.	Palghat	159	7
10.	Malappuram	130	13
11.	Calicut	95	2
12.	Waynad	32	..
13.	Cannanore	105	1
14.	Kasaragod	76	..
	Total	1364	50

9.49 The village wise distribution and percentage of population provided with safe drinking water as on 1-4-1988 is given below.

Below 10%	424	villages
Between 10% and 25%	240	"
Between 25% and 50%	264	"
Between 50% and 75%	182	"
Between 75% and 100%	109	"
Total	1219	villages

9.50 The rural water supply schemes in the State are implemented with assistance from Government of India, World Bank and bilateral agencies and LIC. The flow of funds from external agencies and Government of India since 1980-81, for rural water supply schemes and accelerated rural water supply schemes are given in Table 2.

Table 9.26

Flow of funds from Government of India and External agencies since 1980-81

Years	Flow of funds from	
	External Agencies	Government of India
(1)	(2)	(3)
1980-81	..	328.40
1981-82	..	526.25
1982-83	..	641.00
1983-84	523.38	1571.30
1984-85	268.70	1471.00
1985-86	606.12	1085.00
1986-87	726.14	1213.00
1987-88	1533.24	1398.32
1988-89	931.29	920.75

37/1086/MC.

9.51 There are seven rural water supply schemes under implementation with World Bank Assistance. Of these two schemes are in Ernakulam district, two in Quilon and one each in Pathanamthitta, Kottayam and Trivandrum. Those schemes were started in 1985. The revised project cost for these schemes amounts to Rs. 71.76 crores. It is expected that all the schemes will be commissioned during the 8th Five Year Plan.

9.52 There are eleven bilaterally assisted rural water supply schemes. Of these eight are financed by the Royal Netherlands Government. Three schemes are in Trichur district, two in Alleppey and one each in pathanamthitta, Quilon and Trivandrum. The revised estimated cost for these schemes amounts to Rs. 54.8 crores. It is expected that except one scheme all the others will be completed by 1992. Of the bilaterally assisted schemes three are financed by DANIDA. The revised estimated cost for these schemes is Rs. 21.8 crores. The schemes are located in Cannanore, Malappuram and Calicut.

Urban Water Supply Schemes

9.53 As on 31st March 1989, 35 towns in the State were provided with protected water supply. It is roughly assessed that about 32 lakhs of people, constituting about 70% of the urban population have been provided with protected water supply. Among the 15 major states Kerala occupies 10th place regarding coverage under Urban Water Supply (Appendix 9.31). The service level as on March 31, 1989 is as follows.

	Population covered (in lakhs)	Percentage of population covered
(a) By house connection	8	18
(b) By Public Stand posts	24	52

9.54 There are 12 major water supply schemes being implemented with loan assistance from LIC. These schemes were started during the period 1980-87. The estimated cost of these schemes amounts to Rs. 32.7 crores.

Expenditure

9.55 The total expenditure on water supply and sanitation schemes during 1988-89 was Rs. 48.59 crores as against 41.32 crores during 1987-88. Of this Rs. 32.69 crores was for rural water supply schemes, Rs. 11.29 crores was for urban water supply schemes and 4.61 crores was for sanitation schemes. The year-wise expenditure from 1980-81 on rural water supply schemes, urban water supply schemes and sanitation schemes is provided in Table-9.27

Table 9.27
Expenditure on Water Supply and Sanitation Scheme in the State
(Rs. in lakhs)

Year	Expenditure on			Total Expenditure
	Rural Water Supply	Urban Water Supply	Sanitation	
(1)	(2)	(3)	(4)	(5)
1980-81	745.42	1369.47	140.10	2254.99
1981-82	1249.42	1389.22	192.94	2831.58
1982-83	1701.65	1171.02	216.37	3089.04
1983-84	4396.15	1518.71	317.87	6232.73
1984-85	3177.19	729.64	278.40	4185.23
1985-86	2821.48	1062.99	254.42	4138.89
1986-87	2023.17	636.04	391.33	3050.54
1987-88	1578.21	2398.57	155.24	4132.02
1988-89	3268.87	1129.69	460.66	4859.22

Urban Development

9.56 According to 1981 Census the urban population constituted 18.8 per cent of the total population and the urban area 4.6 per cent of the total area of the state. The slum population constitutes 8.41 per cent of the total population of statutory towns.

9.57 The urban development schemes in the state are implemented by the department of Town Planning, Municipal Administration, 3 City Corporations, 9 Development Authorities, 42 Municipalities and 2 Township Committees. There are 142 Panchayats which satisfy all urban characteristics in the State.

9.58 The Kerala Urban Development Finance Corporation established in 1970 is rendering financial assistance to urban local bodies for their remunerative and non-remunerative activities. The Corporation has so far disbursed Rs. 34.62 crores as loans and assisted 445 schemes. Of the projects assisted 348 were completed as on 31-3-1989.

9.59 The main functions of the Department of Town Planning are the preparation of development plans for urban and rural areas and fast developing regions and preparation of spatial development plans for the State. During the year under review the department has prepared 3 DTP schemes, 99 project reports for Environmental Improvement of Slums, 100 layout plans for urban local bodies, 128 factory sites approved under Kerala Factories Rules and cleared 4754 building plans. The department provides financial assistance by way of grant in aid and loans to Municipalities and Township Committees, Development Authorities in the State for the implementation of sanctioned town planning schemes. This department is also administering Town Planning Acts and Building Rules and also issuing location approval certificates for industrial establishments in

the State under Kerala Factories Rules. The expenditure of the department amounted to Rs. 114.28 lakhs during 1988-89. The Department of Municipal Administration is concerned with the implementation of four schemes viz (i) Non-remunerative Town Improvement Scheme, (ii) Environmental Improvement of Urban Slums, (iii) Integrated Development of Small and Medium Towns and (iv) Urban Basic Services. Under the Non-remunerative Town Improvement Scheme, 8 schemes were sanctioned. As against the physical target of 18,000 persons, under environmental improvement of slums, during 1988-89, 15,227 persons were covered.

9.60 The Integrated Development of Small and Medium Towns is under implementation in 13 towns, viz Guruvayur, Kottayam Tirur, Trichur, Kayamkulam, Badagara, Tellichery, Changanacherry, Malappuram, Manjeri, Thodupuzha, Palghat and Cannanore. Project reports in respect of Kothamangalam, Muvattupuzha, Ponnani, Punalur and Alwaye have been sent to Government of India for Consideration. The UNICEF aided Urban Basic Services scheme is implemented in the towns of Ernakulam and Alleppey districts.

Development Authorities and Kerala Urban Development Project

9.61 There are nine Development Authorities constituted in the state for promoting balanced urban development. The Development Authorities since inception mobilised resources to the tune of about 60 crores. Of this over 50 per cent is raised from HUDCO. The major Development Authorities viz, Trivandrum, Calicut and Greater Cochin implemented several schemes. The Trivandrum Development Authority has formulated over 20 DTP schemes. During 1987-89 it has completed the Medical College Phase II complex and has taken up the Palayam Development Scheme. The Greater Cochin Development Authority has 35 detailed town planning schemes, under implementation. The major scheme is housing under which over 20,000 houses were assisted/constructed. The major Programme of Calicut Development Authority is also housing. For the balanced development of the three cities of Trivandrum, Cochin and Calicut, a new Kerala Urban Development Project with World Bank assistance at a cost of Rs. 806 crores is proposed to be taken up for implementation.

Labour and Labour Welfare

Industrial Training Institutes

9.62 There are at present 22 government ITIs and 227 private ITCs in the state with an intake capacity of 34,940. Out of 22 Government ITIs, three are exclusively for women. The women strength in other ITIs excluding those for women, constitutes about 20 per cent of the total. The 22 Government ITIs impart training in 18 trades with one year duration and 17 trades with two years duration. District-wise number and seat strength of government ITIs and private ITCs in the state are given in Table 9.28.

9.63 Apprenticeship training was given to 3924 apprentices in 59 trades through 8 Related Instruction Centres and six ITIs in the districts where RI centres

have not been established. There is one Advanced Vocational Training system at Kalamassery to impart higher level vocational training in special areas of technology. The Regional Vocational Training Institute for Women at Kazhakuttom and model ITI at Calicut give modular pattern of training.

9.64 The government ITIs have imparted training to 356 trainees sponsored by the Kerala Labour Welfare Fund Board. Special training programmes like Training for Rural Youths in Self Employment (TRYSEM), Special training Scheme for Scheduled Caste/Scheduled Tribe trainees, Post ITI intensive training schemes, crash programme for training of service technicians in

common Electronic Products with the assistance of Department of Electronics, Government of India etc., were conducted in the ITIs.

Tradewise strength in ITIs

9.65 An analysis of the courses in ITIs would show that out of 10,348 trainees in the Government ITIs 29% are undergoing one year course and 71% two year course. In the case of private ITCs, out of 24,692 trainees 11% are undergoing one year course, and 89% are two year course. The trade-wise strength in government ITIs and private ITC's are given in Tables. 9.29 & 9.30

TABLE 9.28

District-wise number of Industrial Training Institute and Seat Strength in Kerala as on 31-12-1989

(Duration of Course One Year and Two year)

Sl.No.	District (1)	Number of Institutions			Seat Strength		
		Govt. I.T.Is (2)	Private I.T.Cs (3)	Total (4)	Govt. I.T.Is (5)	Private I.T.Cs (6)	Total (7)
1.	Trivandrum	4	32	36	2,800	2,800	5,600
2.	Quilon	2	26	28	968	3508	4,476
3.	Pathanamthitta	1	25	26	176	2,408	2,584
4.	Alleppey	1	34	35	760	4,228	4,988
5.	Kottayam	2	18	20	884	2,460	3,344
6.	Idukki	1	5	6	224	368	592
7.	Ernakulam	1	35	36	728	4,748	5,476
8.	Trichur	2	20	22	964	1,924	2,888
9.	Palghat	1	4	5	696	336	1,032
10.	Malappuram	1	6	7	232	428	660
11.	Wynad	1	2	3	48	128	176
12.	Kozhikode	3	10	13	880	764	1,644
13.	Cannanore	1	9	10	840	528	1,368
14.	Kasaragod	1	1	2	48	64	112
Total		22	227	249	10,248	24,692	34,940

Source: Directorate of Training

TABLE 9.29

Trade-wise Seat Strength under one year course in I.T.Is both Govt. and Private

Sl.No.	Name of Trade	Govt. I.T.Is.		Private I.T.C.s	
		No. of Institutions imparting trades	No. of Seats	No. of Institutions	No. of Seats
	(1)	(2)	(3)	(54)	(5)
1.	Welder	13	696	14	288
2.	Moulder	9	224	1	32
3.	Carpenter	11	384	1	16
4.	Sheetmetal Worker	11	272	3	48
5.	Former & Heat Treater	13	352	2	32
6.	Plumber	13	352	42	880
7.	Upholsterer	1	16	..	..
8.	Mech. (Diesel)	4	112	5	112
9.	Mechanic (Tractor)	2	64	..	..
10.	Data Preparation & Computer Software	1	40	2	200
11.	Steno (English)	18	368	35	784
12.	Steno (Hindi)	2	32	1	16
13.	Dress making	3	80	..	..
14.	Secretarial Practice	3	48	3	64
15.	Cutting and Tailoring	..	..	4	128
16.	Hand Composition & Proof Reading	..	..	4	64
17.	Printing Machine Operator	..	..	3	46
18.	Book Binding	..	..	1	16
	Total	104	3040	121	2728

Source: Directorate of Training.

TABLE 9.30

Trade-wise seat strength under two year course in I.T.Is both Govt. and Private

Sl.No.	Name of Trade	Govt. I.T.Is		Total	
		No. of Institutions	No. of seats	No. of Institutions	No. of Seats
	(1)	(2)	(3)	(4)	(5)
1.	Draughtsman Mechanic	6	192	10	464
2.	Draughtsman Civil	19	692	160	7296
3.	Surveyor	5	160	2	96
4.	Fitter	16	1152	97	4416
5.	Turner	12	612	4	108
6.	Machinist	10	564	1	48
7.	Mechanic Ref: Air Conditioning	10	400	21	736
8.	Instrument Mech.	5	160	..	..
9.	Watch & Clock Repaires	3	96	1	32
10.	Electrician	12	720	81	4400
11.	Wireman	13	720	12	432
12.	Electroplater	1	16	..	..
13.	Mechanic (Motor Vehicle)	15	432	23	880
14.	Mechanic (Radio & Tele.)	16	640	29	1392
15.	Electronic Mechanic	19	704	36	1632
16.	Painter General	3	48	..	..
17.	Tool & Die Maker	..	..	..	32
	Total	165	7308	478	21964

Source: Directorate of Training.

CHAPTER 10

Special Programmes for the Weaker Sections

Poverty alleviation programmes have been one of the main planks of our development strategy in recent times. In an effort to bring as large a section of the population as possible above the poverty line it was proposed to accelerate the pace of implementation of asset endowment, and wage employment programmes, making them more effective, better co-ordination and involvement of people in all the programmes. The major programmes continued in 1988-89 were Integrated Rural Development Programme (IRDP), National Rural Employment Programme (NREP), Land Reform measures etc. Under IRDP, the family level investment has steadily increased to nearly Rs. 6254 per family during the year 1988-89. Other remarkable achievements were creation of 149.57 lakh mandays of employment under NREP, 74.11 lakh mandays of employment under RLEGP and the distribution of 510 acres of surplus land to the landless upto 31-12-1989.

Integrated Rural Development Programme (IRDP)

10.2 The Integrated Rural Development Programme (IRDP) is a major poverty alleviation programme financed by Central and State Governments on a 50:50 sharing basis. The objective of the programme is to assist selected families below the poverty

line in rural areas to take up self employment ventures for overcoming poverty, by providing income generation assets through a package of assistance comprising of subsidy and institutional credit. Allocation for 1988-89 under the scheme was Rs. 1797.565 lakhs. A sum of Rs. 1878.84 lakhs was spent during the year. The percentage of expenditure was 104.5.

10.3 The performance of IRDP during 1987-88 and 1988-89 is given in Table 10.1. The physical target of beneficiaries assisted numbered 87006, during 1988-89, which included 28673 old families and 58333 new families and the percentage of achievement was 103.51. Out of the total, SC/ST beneficiaries and women beneficiaries assisted during 1988-89 numbered 32143 and 35602 respectively. The percentage coverage of SC/ST families and women rose to 36.94% and 40.92% respectively.

10.4 The subsidy disbursed during the year was Rs.1539.53 lakhs, out of which Rs. 548.91 lakhs was utilised exclusively for SC/ST families and Rs. 580.65 lakhs for the benefit of women. Total loan disbursed through the banks during the year was Rs. 3234.51 lakhs. The per family investment including subsidy and loan in respect of old and new families was Rs.3927 and Rs.6254 respectively. Kerala is one among the few states that have exceeded the target in respect of the achievement of per family investment of new and old families.

TABLE 10.1

Physical and Financial Achievements under Rural Development Programmes (1987-88 and 1988-89)

Programme	Unit	Achievement	
		1987-88	1988-89
(1)	(2)	(3)	(4)
I (a) IRDP			
(i) Families assisted	No	110684	87006
(ii) SC/ST Families assisted	No	34059	32143
(iii) Subsidy adjusted	Rs. lakhs	1575.02	1539.53
(iv) Loan Disbursed	"	3370.15	3234.51
(b) TRYSEM			
(i) Persons trained	No	5849	5925
(ii) SC/ST Persons trained	No	1990	2203
(iii) Women trained	"	3687	3569
(iv) Persons settled out of trained	"	3853	5357
(v) SC/ST persons settled out of trained	"	1178	1803
(vi) Women settled out of trained	"	2546	2949
(c) DWCRA			
(i) Women groups organised	No	310*	193
(ii) Women Groups functioning	"	169*	182
II. NREP			
(i) Total expenditure	Rs. lakhs	2640.73	4046.98
(ii) Expenditure for SC/ST	"	640.94	1379.25
(iii) Mandays generated	Lakh mandays	98.75	149.57
(iv) Mandays generated for SC/ST	"	36.76	57.97

* Revised

(1)	(2)	(3)	(4)
(v) Food grains utilised	M.T.	42388.82	13679.88
(vi) New roads constructed	Km.	790.80	759.00
(vii) Drinking water wells constructed	No	91	159
(viii) Irrigation canals		68 Nos	17.50 Km. field canals
(ix) Social forestry (distribution of seedlings)	in lakhs	341.69	247.35
(x) Construction of latrines	No	1663	486
(xi) Building construction (Schools & other buildings)	No	14	7
III. RLEGP			
(i) Total Expenditure	Rs. in lakhs	2386.59	2180.90
(ii) Expenditure for SC/ST	"	738.97	1045.41
(iii) Mandays generated	Lakh mandays	85.32	74.11
(iv) Mandays generated for SC/ST	"	33.61	30.15
(v) Foodgrains utilised	MT	32331.17	8942.97
(vi) Social forestry (distribution of seedlings)	in lakhs	66.78	28.29
IV. SCHEME FOR SMALL AND MARGINAL FARMERS			
(i) Amount of subsidy disbursed	Rs. lakhs	310.59	143.96
(ii) Small and Marginal Farmers assisted	No.	215963	124231
(iii) SC/ST Farmers assisted	No.	15702	11684

Source: Rural Development Department

Training of Rural Youth for Self Employment (TRYSEM)

10.5 The main objective of the programme is to provide technical training to rural youth between the ages 18-35 belonging to the families below poverty line and to enable them to take up self employment ventures.

10.6 Against a target of 6040 youth from the 151 blocks at the rate of 40 youth per block during 1988-89, the number of youth trained was 5925. Out of this, SC/ST families numbered 2203. Out of 5925 persons trained during the year, 5357 persons were settled in self/wage employment, among whom 1803 persons belonged to SC/ST families. The expenditure incurred on TRYSEM Programme during the year was Rs. 155.47 lakhs.

10.7 The major problem under TRYSEM is that there is always a lag between the number trained and the number settled. There are a large number of educated youth who are given training in almost all trades during the last two Five Year Plans under TRYSEM. During the first four years of the seventh Five Year Plan 20326 persons were given training under TRYSEM. Out of this, only 6976 persons were able to settle in various trades. Thus there are a large number of trained unemployed persons in each Block area. Many of these trainees could not get finance for economic development activities since those families have already availed of the IRDP assistance and still most of these families continue to be below the poverty line. These trained hands require additional financial support for rehabilitating the youth trained under TRYSEM, as otherwise these families or at least a section of them would continue to be below poverty line. A programme for rehabilitating the youth, to be implemented from 1990-91 is under consideration.

National Rural Employment Programme (NREP)

10.8 The objective of NREP is to provide employment opportunities in rural areas by the creation of durable assets benefiting the community. It is a centrally sponsored scheme on 50:50 sharing basis between Centre and the State Governments.

10.9 The allotment including the cost of food grains under NREP for the year 1988-89 was Rs. 3370.87 lakhs. However, the total resources for 1988-89 was Rs. 4512.88 lakhs including an opening balance of Rs. 1142.01 lakhs as on 1-4-1988. Out of a total expenditure of Rs. 4046.98 lakhs reported, during the year, Rs. 1379.25 lakhs (34%) was utilised for the benefit of SC/ST. The number of mandays generated during the year was 149.57 lakhs out of which 57.96 lakh mandays (39%) were for Scheduled Castes/Scheduled Tribes. The physical and financial achievements under NREP are furnished in Table 10.1.

Rural Landless Employment Guarantee programme (RLEGP)

10.10 RLEGP is a centrally sponsored scheme fully financed by the Government of India. The basic objectives of the programme are for providing employment to at least one member of every rural landless labour household upto 100 days a year and the creation of durable assets for strengthening the rural infrastructure. The various projects under implementation included construction of rural link roads, construction of houses for the benefit of SCs/STs, social forestry works and improvement of irrigation channels. The allotment during the year, including value of foodgrains, was Rs. 2252.09 lakhs. As against the total resources available of Rs. 2655.71 lakhs including an opening balance of Rs. 403.62 lakhs, during 1988-89, the total expenditure reported

under RLEGP amounted to Rs. 2180.90 lakhs. Of the total expenditure Rs. 1045.41 lakhs (48%) was utilised exclusively for SCs and STs. 74.11 lakh mandays were generated, out of which 30.15 lakh mandays (41%) were for SCs/STs. Major physical achievements were construction of new roads to the extent of 520.82 km. and that of sanitary latrines numbering 1139 during 1988-89. A comparative performance of RLEGP during 1987-88 and 1988-89 is given in Table 10.1.

Development of Women and Children in Rural Areas (DWCRA)

10.11 DWCRA was launched by the Government of India as a sub scheme of IRDP. The objective of the scheme is to provide opportunities to women belonging to the target groups living below poverty line to increase their income and also to provide supportive services needed to enable them to take up income generating activities. The beneficiaries are organised into groups of 15 to 20 under a group leader to liaison with the banks and government offices. Child care facilities are provided to the children of working women.

10.12 In addition to loan from banks and corresponding subsidy from blocks, Rs. 15,000 per group is available as one time grant which is borne by State and Central Governments and UNICEF equally. This can be used as revolving fund for purchase of raw materials and marketing, honorarium to group organiser which may not exceed Rs. 50 per month for a period of one year, infrastructure support for income generating activities and one time expenditure on child care facilities. Apart from Palghat (12 blocks), Wayanad (3 blocks) and Idukki (8 blocks) districts where the DWCRA programme has already been under implementation from 1988-89 onwards this programme has been extended to Malappuram district (14 blocks) also. The total expenditure under DWCRA during 1988-89 amounted to Rs. 36.43 lakhs. Cannanore district has now been selected by Government of India for implementing the scheme during 1989-90.

People's Action For Development (KERALA)

10.13 People's Action for Development (Kerala) is an organisation under the Rural Development Department started functioning on April 1986. The Society aims at ensuring the involvement of various voluntary organisations in the State in rural development activities. The society helps the voluntary organisations to formulate projects according to the guidelines issued by Council for Advancement of people's Action and Rural Technology (CAPART), New Delhi. The projects are sent to CAPART for financial assistance. The Society also helps the voluntary organisations in the implementation of projects sanctioned by CAPART. CAPART has emerged as an active instrument for promoting voluntary efforts in implementing the government programmes in the following areas.

1. Rural Technology Oriented programmes
2. Promotion of Voluntary action in Rural Development

3. Rural Landless Employment Guarantee Programme (RLEGP)
4. Accelerated Rural Water Supply Scheme (ARWS)
5. Low Cost Sanitation Programme (LCSP)
6. Development of Women and Children in Rural Areas (DWCRA)
7. Organisation of Beneficiaries of Anti-poverty Programme (OBAPP)
8. Integrated Rural Development Programme (IRDP)

During 1988-89 PAD (K) processed and forwarded 28 projects to CAPART for approval and financial assistance. Sanction has been obtained for 48 projects (includes projects for which sanction awaited during 1987-88) during 1988-89 costing Rs. 150.07 lakhs.

Small and Marginal Farmers' Development Programme

10.14 The main objective of this centrally sponsored scheme, financed by Central and State Governments on 50:50 sharing basis is to increase agricultural production. During 1988-89, against the anticipated budgeted provision of Rs. 755.00 lakhs, the Government of India have approved an allocation of Rs. 350.18 lakhs and the expenditure was only Rs. 143.90 lakhs. The total number of families assisted under the scheme was 1,24,231 of which 11,684 were SC/ST beneficiaries. During the period 3624 pumpsets were distributed, 1186 wells and 628 pump houses constructed. Out of these, 268 pumpsets, 127 wells and 29 pump houses were exclusively for the benefit of scheduled caste/scheduled tribe beneficiaries.

Kerala Rural Development and Marketing Society (KERAMS)

10.15 In order to explore markets for the products manufactured by the IRD beneficiaries, and provide reasonable price for their products, a Marketing Agency has been started at State level called KERAMS. (Kerala Rural Development and Marketing Society). Under the auspices of KERAMS Trade Fairs in different parts of Kerala have been organised since 1984. From 1985 onwards trade fair was conducted during Onam festival at Trivandrum, Ernakulam and Calicut simultaneously for 5 days. Different kinds of quality goods were on display for sale at these trade fairs.

10.16 A separate independent marketing outlet at Vazhuthacaud, Trivandrum is functioning since October 1987. The turn over of KERAMS during 1988-89 was Rs. 6.55 lakhs. A proposal for starting permanent sales outlets at the District Headquarters for marketing the products of IRDP beneficiaries is under consideration.

Land to the Landless

10.17 The extent of land declared surplus as on 30-11-1989 stood at 163837 acres, out of this 92338 acres have been taken possession of by Government and 40003 acres remain to be taken over. The extent of land available for taking over, excluding the land covered by stay orders, disputes, etc. is 1040 acres. Out of 92338 acres of land taken over, 62231 acres have been distributed, 20139 acres are reserved for public purposes and 1040 acres are left to be distributed. The extent of land available for distribution excluding the area covered by stay, disputes etc. is 813 acres. Out of 62231 acres distributed, 24333 acres of land (39.1%) was given to the scheduled castes (56346 beneficiaries), 5052 acres of land (8.12%) was given to the scheduled tribes (6960 beneficiaries) and 32846 acres of land (52.78%) was given to others (68620 beneficiaries). See appendix 10.3.

10.18 Annual target for distribution of surplus and the achievement made since 1987-88 are given below:—

Year	Target fixed	Achievement
1987-88	1670 acres	1228 acres
1988-89	1000 acres	1151 acres
1989-90	1000 acres	510 acres up to 31-12-1989

10.19 For the effective implementation of land reforms, a resurvey of the entire land in the state was initiated and the resurvey work is in progress in all the districts in the State except Kasaragod. Out of 32,510 sq.kms. to be surveyed, an area of 22068.71 sq.kms. under field work and 15,643.87 sq.kms. under office work have been completed till 30-11-1989. Of the 1036 villages (45 taluks) taken up, resurvey field work has been completed in 703 villages and office work in 508 villages. The scrutiny and mapping process of remaining villages are in progress. Out of the final notification for 263 villages, only the records of 94 villages has been utilised for revenue administ ration. It has been decided to issue Pattayam Pass Book to all land holders and to implement the scheme as a pilot project in four villages in four districts. The pattayam pass Book Bill is under consideration and the entire resurvey is expected to be completed by 1995.

10.20 Under the scheme. Financial Assistance to the Assignees of surplus land for the development and cultivation of land declared as surplus, the present pattern of assistance is Rs. 1000 per acre (Rs.2500 per ha.). The entire amount is given as grant and the expenditure is shared equally by the Centre and State Governments.

10.21 The total amount sanctioned and spent, number of beneficiaries, area benefited during the period from 1975-76 to 30-11-1987 are as follows:—

Total amount sanctioned	—	Rs.244.20 lakhs
Total amount spent	—	Rs.186.75 lakhs
Total number of beneficiaries	—	81118
Area benefited	—	35270 acres

Development Programmes of Panchayats

10.22 The Department of Panchayat controls, guides and supervises the activities of 999 panchayats in the State. There are about fifteen thousand employees in these Panchayats and nearly eleven thousand

elected members every five year including president and vice president of the Panchayats. Some of the obligatory functions undertaken by the Panchayats include the construction, repair and maintenance of public roads in the Panchayat area, the lighting of public roads and places, construction of petty irrigation works and drains and disposal of drainage water, cleaning of streets and public places, construction and maintenance of public comfort stations and burning and burial grounds.

10.23 Apart from the above obligatory functions, the panchayats make reasonable provision for carrying out improvements in the scheme of Agriculture, Animal Husbandry, Education and Culture, Social Welfare, Public health and Sanitation, Public Works etc. for the welfare of the inhabitants of the Panchayat area. Funds have been provided separately for scheduled castes and scheduled tribes exclusively for the development of the weaker sections of the panchayat area. An amount of Rs.25.00 lakhs had been sanctioned under SCP and Rs.5.00 lakhs under TSP as grants during 1988-89. The major achievements under SCP and TSP during 1988-89 are the following.

Sl. No	Item	Physical achievement		No. of benefited families	
		S.C.	S.T.	S.C.	S.T.
(1)	(2)	(3)	(4)	(5)	(6)
1	Houses wired for electrification	1465	61	1465	61
2	Wells constructed	8	6	450	90
3	T.V. Sets installed	6	3	300	180
4	Construction of burial & burning ground	13	1	700	30
5	Pipe line extended	..	1 km.	..	60
6	ESP type latrine. constructed	465	100	465	100
7	Length of roads constructed/Improved	45.3 km.	15 km.	840	60

10.24 A comprehensive new scheme viz. Eleven Point Programme was introduced during 1987-88. The programme mainly envisages setting up of nursery schools, establishment of libraries, construction of mini stadia and common playgrounds. A modern training college with all facilities has been established at Trichur which would impart training on modern techniques in the field of rural development.

Rural Development Board

10.25 The Kerala State Rural Development Board was constituted in accordance with the provision of Kerala State Rural Development Board Act 1971 with a view to take up developmental activities in rural areas by availing institutional finance. The Board undertakes the scheme in rural areas, subject to the availability of funds on the specific request of the panchayats. The funds required by the Board for the implementation of Remunerative Development Schemes are raised by the Board by Open Market borrowing through nationalised banks by floating debentures with the permission of Reserve Bank of India and on the guarantee of State Government. About 458 schemes have already been completed and handed over to the Panchayats and another 53 schemes costing Rs 612 lakhs are under various stages of execution.

Western Ghats Development Programme

10.26 The programmes implemented under western ghats development programme include mainly 19 ongoing Watershed schemes, Forest schemes, Foot bridges and Soil survey in the main catchment areas. Programmes implemented in the watersheds are of an integrated nature involving soil conservation, minor irrigation, agriculture development, pasture development, afforestation and drinking water supply programme.

10.27 Under soil and water conservation, the achievement upto the end of 1988-89 comes to 5459 ha. This constituted only about 80% of the target. Regarding pasture development only 70% of the physical target could be achieved. Peruvannamuzhy reservoir having high potential for fish culture and rearing operation provides employment to S.C. population of the locality. During 1989-90 Matsyafed is organising another fisheries programme in Thenmala reservoir with W.G.D.P. assistance. Sericulture programme introduced in Pambar and Vattavada in Idukki, envisages the development of bivoltine sericulture for mulberry cultivation. The scheme also provides additional income to the poor farmers of the area; viz Scheduled castes/Scheduled tribes Small and Marginal farmers. Under forest consolidation programme, in the sphere of demarcation and erection of permanent cairns, only 50% of the target could be achieved by the end of 1988-89. Performance of the important schemes coming under eco-preservation of forests have been satisfactory during the first four years of the 7th plan. Under the scheme for development of heterogeneous forest vegetation by profuse mixed seeding technique, 125 ha. have been covered during 1988-89. Under the scheme for conservation and protection of forests, fire line tracing in 3774 kms of area has been completed during 1988-89. It is reported that the scheme "Establishment of an Arbo return in Western Ghats" is in good progress. The scheme for water harvesting, soil conservation and afforestation in the cardamom growing areas (Udumbanchola) taluk of the Idukki district implemented by the spices Board will be completed by 1989-90. Minor irrigation works, drinking water supply programmes and construction of foot bridges undertaken in the selected watershed areas have also shown considerable progress.

Social Security and Welfare

10.28 The successive governments in Kerala have introduced a large number of social security and welfare measures in a view of attaining the goal of reducing income in security among the weaker segments in the society. As a result there are as many as 30 social security and welfare schemes for which there is direct budgetary support. During the period 1985-86 to 1989-90, the budget flow under social security and welfare schemes amounts to Rs. 298.76 crores. This would be increasing further as the State Government have now introduced more pension schemes. Over and above these, there are several schemes operated by the autonomous bodies and corporations in the state.

10.29 The Board of Revenue and Labour are the major departments implementing the pension schemes in the state. The Board of Revenue implements pension to destitutes, widowed/divorced, special pension for the physically handicapped etc. The

agricultural workers pension scheme, coir workers welfare scheme, handloom workers welfare scheme, tree climbers welfare scheme and cashew workers welfare scheme are implemented by the Labour Department. Of the pension schemes, the major ones are the agricultural workers pension scheme, pension scheme for destitutes and handicapped. Out of the total of 2,99,758 beneficiaries under the agricultural workers pension scheme, women segment amounts to 56 per cent. The major schemes implemented in the state are given in Table 10.2

10.30 The Government have introduced four major pension schemes for the traditional workers in the state during 1989. The cashew, coir, handloom, and Khadi workers constitute over 70 percent of the workers in the traditional industries sectors. Apart from these, the Students Accident Insurance scheme was introduced in 1989. This covers about 57 lakh students.

10.31 In addition, there are a large number of schemes implemented exclusively for the handicapped. The relevant data regarding the various scholarship and other facilities for the handicapped are given in Table 10.4

Nutrition

10.32. The various nutrition programmes under implementation in our 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 school. The Integrated Child Development Service is implemented as a package of service mainly intended for the development of children below 6 years of age and pregnant and lactating mothers. Supplementary nutrition, Immunisation, periodical health check-up, referral services, nutrition education, pre-school education etc. are the package of services. During 1988-89 there were 54 central sector ICDS projects and 24 state sector projects in the state. The beneficiaries covered under the ICDS and the anganwadies stood at 7.69 lakhs and 10,064 respectively.

10.33 The other pre-school nutrition programmes covered a total of 10.33 lakhs beneficiaries. Of these ANP had covered 1.04 lakhs, CPWP 1.22 lakhs and IHPP 7.67 lakhs. The number of centres and beneficiaries under the nutrition programmes is given in Table 10.5

Mid-day Meal in Schools.

10.34 The mid-day meal programme was implemented to cover all the needy children in the State. The per day per beneficiary cost worked out to 60 paise and for the 180 working days in a year, Rs. 108. During the year under review, the programme covered 32 lakh LP and UP children who were considered to be the needy children out of the total of 43 lakh children in LP/UP schools. The scheme benefited 4.6 lakh Scheduled Caste/Scheduled Tribe students during 1987-88. The expenditure under the scheme amounted to Rs. 29 crores.

10.35 The expenditure incurred under all nutrition programmes amounted to over Rs. 36 crores. In addition, about Rs. 18 crores worth food materials was received for the pre-school feeding under the world Food Programme during 1988-89.

TABLE 10.2

Social Security and Pension Scheme

Sl. No.	Name of the Scheme	Qualifying/Eligibility Conditions	Year of starting	Rate of Assistance (in Rs.)	Amount spent (Rs. in lakhs)		No. of persons received assistance	
					1987-88	1988-89	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1.	Oldage Destitutes, widowed, divorced Destituts	The qualifying age is above 65. For widowed destitute no age limit. Monthly income not to exceed Rs. 100.	1960	55 p.m.	319.37	1183.71	173885	177565
2.	Special pension scheme for the physically handicapped	Disabled persons who have minimum 40% disability are eligible. Certificate from the Medical Board necessary. Beneficiaries monthly income Rs. 75 or Family income not to exceed Rs. 300.	1982	75p.m.	49439	553.23	58455	66744
3.	Financial assistance to widows for the marriage of their daughters	Yearly income of the family should not exceed Rs. 5000	1978	1000	116.47	115.97	11647	11597
4.	Pension to Sportsmen	The scheme envisages financial assistance to sportsmen in distress. The annual income should not exceed Rs. 3600	1978	100 p.m. 150 " 200 "	3.04	3.12	41 75 50	39 74 47
5.	Agricultural workers pension scheme	Eligible age is above 60 Annual family income should not exceed Rs. 1500.	1980	60 p.m.	1582.14	2144.16	286733	299758
6.	Tree Climbers Welfare Scheme	Financial assistance is given to workers in the event of fatal accidents and permanent total disability following the accident during the course of their occupation	1980	5000/person	6.05	8.15	121	163
7.	Unemployment Assistance Scheme	Financial assistance is given to those who wait for employment in the live register of employment exchange for more than three years	1981	60 p.m.	1095.65	2353.77	205556	215456
8.	Self Employment Scheme	Unemployed persons	1980	Rs. 600/ person (once only)	6.25	6.91	1042	13248
9.	Welfare Fund for Journalists	Financial assistance is given to the working journalists/ their dependents in distress. The family income should not exceed Rs. 3600 per annum.	1976	300- 500	5.81	6.75	154	182
10.	Welfare Fund for Cine Artists	Financial assistance is given to cine Artists in distress. The Annual income of the family should not exceed Rs. 3600	1975	300/ person	3.10	4.24	98	120
11.	No. of TV sets distributed	Distributed to the Panchayats. $\frac{1}{4}$ of the total cost of the TV subject to a maximum of Rs. 5000			0.45	2.18	9 TV sets	44 TV sets
12.	Financial assistance to leprosy and cancer patients	Leprosy and cancer patients are covered. Certificate from hospitals are to be produced. Income of the patients not to exceed to Rs. 50per months	1976	100p.m.	19.50	35.60	2612	2828
13.	The Kerala Cashew Workers Welfare Scheme	Cashew workers above 60 years	1988	75 p.m.				
14.	The Kerala Khadi Workers Welfare Scheme	Khadi Workers above the age of 60	1988	70 p.m.				
15.	The Kerala Handlooms workers welfare scheme	Handloom workers above the age of 60	1989	75 p.m.				
16.	Coir Workers Welfare Scheme	Coir workers above the age of 60	1989	75 p.m.				
17.	Students Accident Insurance Scheme	All Students	1989					

Rs. 10,000 in the case of fatal accident or accidents which causes total disability. In the case of minor injuries an assistance subject to a maximum of Rs. 500 in a year.

TABLE 10.3

District-wise male-female classification of Agricultural workers pension scheme according to 1987-88 situation.

Name of District	Total beneficiaries	Of which women beneficiaries	% of women to total beneficiaries
(1)	(2)	(3)	(4)
1. Trivandrum	18626	10431	56
2. Quilon	19794	9303	47
3. Pathanamthitta	44348	20281	46
4. Alleppey	31186	16202	52
5. Kottayam	14371	5461	38
6. Idukki	5531	3196	58
7. Ernakulam	17153	10705	62
8. Trichur	26467	14328	54
9. Palghat	34747	23925	69
10. Malappuram	37124	21356	59
11. Kozhikode	37077	20864	56
12. Wayanad	7157	3990	56
13. Cannanore	22570	16499	73
14. Kasaragode	6489	3764	58
Total	322640	180305	56

TABLE 10.4

Welfare Programmes for eth Handicapped

Name of scheme	Year of starting	No of beneficiaries		Expenditure (in Rs.)	
		1987-88	1988-89	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)
1. Home for Mentally Deficient Children					
Trivandrum	1963	50	50		
Calicut	1976	50	50		
2. Custodial Care Home	1974	12	15		
3. Care Home for Disabled Children					
Quilon	1960	25	25		
Alleppey	1982	25	25		
Trichur	1960	25	25	12,68,258	14,57,895
Tellicherry	1961	25	25		
4. Home for Physically Handicapped					
Trivandrum	1976	25	25		
Alleppey	1962	25	25		
Ernakulam	1980	75	75		
Palghat	1962	25	25		
Calicut	1980	75	75		
5. Vocational Training Centres					
Trivandrum	1971	61	65		
Calicut		22	25	2,29,000	2,41,260
Pathanamthitta		30	30		
Trichur		—	15		

(1)	(2)	(3)	(4)	
6. Pre-matric scholarship for the Physically handicapped 1980	8679	6785	34,71,935	27,13,900
7. Government of India Scholarship for the disabled 1973	1716	1970	17,00,000	19,07,805
8. State Awards to Physically Handicapped 1982	13	16	13,000	17,787
9. Financial Assistance to blind advocates 1984	4	5	18,100	25,400
10. Grant to Persons contracting Intercaste Marriage 1977	250	250	4,96,000	5,00,000
11. Scholarship for Mentally Retarded 1979	228	228	1,49,520	1,50,000
12. Home for Cured Mental Patients 1988		15		62,000

TABLE 10.5

Feeding Centres—Beneficiaries under different feeding programmes

Name of Programme (1)	No. of Centres		No. of beneficiaries (in lakhs)	
	1987-88 (2)	1988-89 (3)	1987-88 (4)	1988-89 (5)
1. Special Nutrition Programme	470	463	0.39	0.40
2. Integrated Child Development Service	9227	10064	7.75	7.69
3. Applied Nutrition Programme	1705	1611	0.98	1.04
4. Composite Programme for Women and Pre-School Children	1652	1652	1.28	1.22
5. School Meals Programme	13816	13816	32.00	32.00

Welfare of Scheduled Castes and Scheduled Tribes and other Backward Classes

10.36 over the years Government have been implementing several schemes for the overall development of people belonging to scheduled castes and Scheduled Tribes. Special scholarships, coaching classes, special schemes in the area of sports for the development of talents among these sections, housing schemes, boarding and lodging facilities for students, special concessions to develop them on par with general sections are the major schemes implemented. The Scheduled Caste Development Department, the Scheduled Tribe Development Department and the Kerala State Development Corporation for scheduled Castes and Scheduled Tribes are the major departments implementing schemes for the welfare of these sections of the population.

Education.

10.37 The enrolment of Scheduled Castes and Scheduled Tribes students in Government Colleges stood at 7547 in 1988-89. 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 6,53,769 which accounted for 11.57 percent of the total school enrolment. In the case of scheduled Tribes, the enrolment remained at 59,599 constituting 1.02 percent of the total. The standardwise strength of SC/ST students are given in Table 10.6

TABLE 10.6
Standardwise strength of SC/ST students

Standard	Total number of students	Of which number of SC students	Percentage of SC students	Number of ST students	Percentage of ST students
(1)	(2)	(3)	(4)	(5)	(6)
I	6,08,642	71,591	11.76	9,037	1.48
II	6,55,416	77,168	11.78	8,842	1.35
III	6,71,373	78,807	11.74	8,279	1.23
IV	6,60,587	74,761	11.32	7,304	1.11
V	6,32,190	70,533	11.16	6,283	0.99
VI	6,07,547	68,546	11.28	5,282	0.87
VII	6,08,106	67,304	11.07	5,050	0.83
VIII	5,31,397	57,077	10.74	4,070	0.77
IX	4,91,918	51,210	10.41	3,234	0.66
X	3,84,775	36,772	9.56	2,218	0.58
Total	58,51,951	6,53,769	11.17	59,599	1.02

10.38 As in the previous years, pre-matric and post-matric scholarships were awarded to Scheduled Caste students. During 1988-89, 5,98,386 students were awarded pre-matric scholarships and 74,176 students were awarded post-matric scholarships. The expenditure incurred on these schemes amounted to Rs. 413.93 lakhs and Rs. 768.27 lakhs respectively.

10.39 The scheme of clothes distribution benefited 3439 students and the expenditure amounted to Rs. 2.52 lakhs. Production-cum-training centres, Industrial training centres, pre-examination training centres, book banks etc. were some other schemes implemented for the benefit of SC/ST students.

10.40 The Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes during 1988-89 implemented five schemes viz. Agricultural land purchase scheme, Foreign Employment Scheme, Margin money scheme for self-employment subsidised seed money scheme and Assistance to co-operative societies for the socio-economic uplift of the people belonging to scheduled castes and scheduled tribes. During the same year the corporation assisted 1925 persons by disbursing Rs. 72.69 lakhs as subsidy and grant utilising the grant received from state Government and loan from HUDCO. As on 31-3-1989 the corporation assisted 80740 persons under various schemes and incurred an expenditure of Rs. 3042.49 lakhs. Of the beneficiaries 30147 availed self employment assistance and 29763 availed house construction assistance. The schemewise achievement till 31-3-1989 are provided in Table-10.7

10.41 The Scheduled castes and scheduled Tribes have been assisted under the two housing schemes implemented by the Board of Revenue viz. House sites to landless workers in rural areas and construction of huts/houses to rural workers. The financial and physical achievements under these schemes during a decade is provided in Table-10.8

TABLE 10.7

Achievements of Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes

Name of Scheme (1)	Amount Spent (Rs. lakhs)			
	No. of beneficiaries		Amount Spent	
	Upto 31-3-1988 (2)	During 1989 (3)	Upto 31-3-1988 (4)	During 1988-89 (5)
1. Agricultural Land Purchase	6257	1369	451.93	193.68
2. Foreign Employment	2099	185	177.51	18.45
3. Margin money for self employment	28943	1804	487.38	38.83
4. Seed Money	391	550	11.20	13.92
5. Housing	29088	675	1251.51	75.75
6. Assistance to co-operative societies	16	1	47.94	5.00
7. Loan for the purchase of machinery	5	..	0.42	..
8. Loan for starting industry in Mini Industrial estates	20	..	2.53	..
9. Sewing Machine	4908	..	73.51	..
10. Margin money (old)	622	..	2.77	..
11. Autorickshaw hire purchase	232	..	28.43	..
12. SBT & I	4028	..	160.96	..
13. Training in Autorickshaw driving	149	..	0.77	..
Total	76158	4584	2696.86	345.63

37/1086/MC.

TABLE 10.8

Achievements under the housing schemes for rural workers

(Rs. lakhs)

Year	Allotment of house sites to rural workers			Construction assistance to rural workers		
	No. of sites allotted	Of which sites allotted to SC/ST.	Expenditure	No. of beneficiaries	Of Which SC/ST	Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980-81	6248	N.A.	102.72	2330	658	18.40
1981-82	6605	N.A.	90.22	4053	1408	14.42
1982-83	8024	1916	72.15	1254	503	29.75
1983-84	3144	1786	76.13	711	312	28.80
1984-85	4891	2193	200.61	1235	513	30.85
1985-86	5151	2341	111.36	888	335	27.43
1986-87	5517	2321	154.00	1043	407	11.27
1987-88	1869	883	95.86	366	139	7.55
1988-89	2903	1291	150.92	852	222	33.33
1989-90 (upto 12/89)	1397	..	45.94	173	..	5.11

SC/ST representation in Government Service

10.42 The reservation and special recruitment policy helped these sections and 2044 persons belonging to scheduled castes and scheduled tribes were appointed in the Gazetted posts out of a total number of 20281 posts which constituted 10.07 percent. In the non-gazetted posts, other than last grade, 24968 persons belonged to SC/ST out of a total of 244573 posts which constituted 10.2 percent of the total. Under the last grade service 11.76 percent was from SC/ST. The relevant data are furnished in Table 10.9

TABLE 10.9

SC/ST representation in Gazetted and Nongazetted Posts

Category	Total No. of posts	SC/ST representation	Percentage of SC/ST
(1)	(2)	(3)	(4)
Gazetted	20281	2044	10.07
Non gazetted (other than last grade)	244573	24968	10.20
Last grade	40615	4778	11.76

SC/ST beneficiaries under land reforms.

10.43 The assignment of Government land to the occupiers is a welfare scheme implemented by the State Government. A significant part of the beneficiaries under this scheme belonged to SC/ST. A total of 183596.85 hectares of land was assigned as on 31-12-1989. Of this 27076.27 hectares was assigned to SC/ST beneficiaries. Out of 521103 beneficiaries 98807 were Scheduled Castes and Scheduled Tribes constituting 18.9 percent. The district wise details of land assigned and number of beneficiaries is presented in Appendix 10.3 Under the surplus land distribution schemes a total of 25210 hectares of land was distributed to 132117 beneficiaries as on 31-12-89. Of this 9861 hectares was distributed to 56441 scheduled caste beneficiaries and 2045 hectares was distributed to 6971 beneficiaries belonging to Scheduled tribes. The district-wise details of distribution of surplus land is provided in Appendix 10.4

CHAPTER 11

INSTITUTIONAL FINANCE

In a developing country like India, where budgetary resources are rather scarce, institutional finance will have to play a major role in regard to the availability of investment funds. Keeping this in view, the financial institutions are being entrusted with new responsibilities from time to time. The national level financial institutions, besides the banking sector, such as Industrial Development Bank of India (IDBI), Industrial Finance Corporation of India (IFCI), Industrial Credit and Investment Corporation of India Limited (ICICI), Life Insurance Corporation of India (LIC), Unit Trust of India (UTI), General Insurance Corporation of India (GIC), Industrial Reconstruction Bank of India (IRBI), State Industrial Development Corporations (SIDCs), Export—Import Bank of India (Exim Bank), National Bank for Agriculture and Rural Development (NABARD), National Co-operative Development Corporation (NCDC), have a vital role in channelling funds for the development of the country.

11.2 At the national level, the aggregate disbursement by all India financial Institutions during the year was very impressive; recording an increase of 22.7% over the previous year. The largest disbursement was made by IDBI, 46.9% followed by UTI 11.68% NABARD 13.61% and IFCI 10.59%. While the disbursement by GIC was 1.24%, the lowest, the disbursements by LIC and ICICI were 4.73% and 90.02% respectively. Out of the total disbursements made to the major states, Maharashtra received the largest share (16.73%) followed by Gujarat (12.18%) and Uttar Pradesh (11.48%). Kerala could receive only 2.53%, the lowest, but for Bihar (2.41%) and Assam (0.82%), while Kerala's share in IDBI disbursement was 2.83%. the disbursements by other institution were very low, between 0.39% and 1.71%, barring NABARD and NCDC. The total credit extended by NABARD during the 9 months in 1988-89 (July to March) worked out to be Rs. 1270.15 crores, out of which the share of Kerala was Rs. 71.26 crores (5.6%), Uttar Pradesh Rs. 200.78 crores (15.8%), the highest, and Assam Rs. 20.83 crores, (1.64%), the lowest. N. C. D. C. disbursed Rs. 205.65 crores during the year, against Rs. 169.61 crores during the previous year, showing a substantial increase of 21.25%. As for Kerala, the aggregate credit extended by NCDC during the year increased to Rs. 13.73 crores from Rs. 4.81 crores in the previous year, registering an increase of 185.4%. On comparing the Statewise distribution, Madhya Pradesh was the largest beneficiary (14.5%) followed by Punjab (10.84%), Karnataka (7.83%) and Rajasthan (7.35%). The State-wise disbursement by all India financial institutions in absolute and percentage term during 1988-89 is shown in appendix 11.1.

11.3 Kerala's share in the cumulative disbursements by the all India Financial Institutions to various states upto the end of 1989 was only 2.67% whereas the share of Maharashtra was 16.22%, Gujarat 11%, Andhra Pradesh 8.65% Tamil Nadu 8.93% and Karnataka 6.98%. The summary position of disbursement is shown in appendix 11.5.

11.4 After the nationalisation of Banks in 1969, the progress of the banking sector was tremendous. The number of bank offices increased from 8,262 in June 1969 to about 57,197 in June 1984 (Appendix 11.2). The average size of population served per bank office came down from 65,000 in 1969 to 12,000 in 1989. The aggregate deposit rose from Rs. 3897 crores in 1969 to Rs. 1,47,143 crores by June 1989, showing an average growth rate of 19.9. However, the credit disbursement were not keeping pace with the growth in deposits. The annual average growth rate of credit disbursement comes to 18.4 only. Even in disbursement there were wide variations between the states. Details are given in Table 11.1. States like Andhra Pradesh, Karnataka Maharashtra and Tamil Nadu had a more favourable credit deposit ratio as at June 1988, according to available information. The credit deposit ratio of Kerala has been declining over the years and as at September 1989 it reached a level of 63.53%.

11.5 As regards priority sector advance by public sector banks, the percentage share of advance to Kerala increased from 36.4% in 1969 to 54.8% in June 1987. However, when we consider the increase in absolute terms, increase in respect of Kerala was not appreciable as will be seen from the appendix 11.3. Among the 15 major states Kerala ranked tenth in regard to priority sector advance.

11.6 The year-wise deposits (including NRE deposits) and advances since 1985 and credit deposit ratio of banks located in Kerala are shown in appendix 11.4. During the period from 1985 to September 1989 the total deposits (including the NRE deposits) rose by Rs. 20173 crores, where as NRE deposits alone increased to Rs. 5826 crores. Out of the total deposits 36.3% was mobilised by State bank group 41.6% by other nationalised banks and the remaining 22.1% by private banks.

11.7 The credit deposit ratio as well as priority sector advance continue to remain low compared to other major states. The situation needs to be improved considerably, considering the economic backwardness and the explosive unemployment situation prevailing in the state.

TABLE 11.1

*Deposits and credits of the public Sector Banks (as at the end of June 1988)**Rs. Crores*

State	Deposits			Credit			Credit deposit Ratio %		
	1969	1987	1988	1969	1987	1988	1969	1987	1988
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7)	(9)	(10)
1. Andhra Pradesh	121	5596	6402	122	4296	5040	100.80	76.80	78.7
2. Assam	33	1156	1356	13	596	708	39.40	51.60	52.2
3. Bihar	169	4895	5765	52	1709	2056	30.80	34.90	35.76
4. Gujarat	401	6581	7620	195	3612	4101	48.60	54.90	53.80
5. Hariyana	49	2027	2386	23	1221	1463	46.90	60.20	61.30
6. Karnataka	188	4626	5373	143	4195	4876	76.10	90.60	90.70
7. Kerala	117	3369	3844	77	2152	2338	65.80	63.90	62.10
8. Madhya Pradesh	107	3859	4535	63	2324	2830	58.90	60.20	62.40
9. Maharashtra	903	16956	19356	911	13183	13920	100.09	77.70	71.90
10. Orissa	29	1257	1479	15	1008	1206	51.70	82.20	81.50
11. Punjab	185	5758	6751	50	2437	2672	27.00	42.30	39.60
12. Rajasthan	74	2447	2892	38	1523	1766	51.40	62.20	61.10
13. Tamil Nadu	233	5821	6709	311	5615	6511	133.50	96.50	97.00
14. Uttar Pradesh	337	10289	12254	154	4512	5331	45.70	43.90	43.50
15. West Bengal	456	9549	11203	526	4557	5207	115.40	47.70	46.50
Total Major States	3402	84158	97925	2893	52940	660075	79.20	62.90	561.30
All India	3897	97663	114070	3835	59410	66856	77.90	60.80	58.60

APPENDIX

STATISTICAL TABLES

APPENDIX TABLES

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APPENDIX 2.1

Per capita Net State Domestic Product
(1980-81, 1985-86, 1987-88—New Series)

(Rs.)

State	At Current Prices				At Constant Prices			
	1980-81	1985-86	1986-87	1987-88*	1980-81	1985-86	1986-87	1987-88*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Andhra Pradesh	1384	2313	2372	2653	1384	1553	1452	1495
Arunachal Pradesh	1525	3850	4087	..	1525	2467	2518	..
Assam	1200	2313	2420	2583	1200	1483	1474	1516
Goa	3169	5360	5901	6284	3169	3338	3473	3545
Gujarat	1950	3037	3545	3592	1950	1976	2124	1948
Haryana	2953	3818	3947	4214	2353	2753	2690	2572
Himachal Pradesh	1662	2630	2955	3217	1662	1749	1869	1822
Kerala	1644	2152	2424	2598	1444	1391	1384	1386
Manipur	1564	2419	2575	2806	1564	1686	1655	1705
Meghalaya	1230	2037	2263	2371	1230	1310	1326	1338
Mizoram	1284	2788	..	..	..	..	..	..
Sikkim	..	3110	3471	..	..	..	..	..
Tamil Nadu	1498	2674	2921	3163	1498	1855	1875	1943
Uttar Pradesh	1332	2072	2269	2488	1332	1438	1483	1486
Pondicherry	3159	4541	4620	5142	3159	3343	3308	3337
All India	1627	2734	2974	3284	1627	1863	1892	1918

Note: * Quick Estimates.

Source: State Domestic Product—Central Statistical Organisation.

APPENDIX 2.2

Net State Domestic Product of India at Factor Cost by Industry of Origin

(Rs. Crores)

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	45881	43312
2. Forestry	3059	4727	5072	2362	2304
3. Fishing	806	2058	2536	1193	1154
4. Mining and Quarrying	1474	6114	6169	2380	2409
Sub—Total—Primary	45395	82958	89787	51706	51179
5.0 Manufacturing					
5.1 Registered	10050	26596	30417	18694	20297
5.2 Unregistered	8648	15786	18279	11978	12686
6.0 Electricity, Gas and Water Supply	831	2584	2549	1525	1618
6.1 Electricity	..	..	..	..	..
6.2 Gas	..	..	..	..	..
6.3 Water Supply	—	—	—	—	—
7.0 Construction	5771	13899	16146	6762	6954
Sub—Total—Secondary	25300	58829	67391	38959	41555
8.0 Transport, Storage and 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
9.0 Trade, Hotel and Restaurants	14322	31964	35553	19625	20360
10.0 Banking and Insurance	3394	8902	10237	6151	6523
11.0 Real Estate and ownership of Dwellings	5920	8849	9742	7465	7755
12.0 Public Administration	5307	13603	16225	8092	8842
13.0 Other Services	6777	14793	16869	9083	9451
Sub—Total—Tertiary	39444	89628	102440	56454	59283
Net State Domestic Product	110139	230815	259618	147119	152017

Note: * Provisional Estimate

+ Quick Estimate

Source: Central Statistics Organization, 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 1988-89 At Current Prices (New Series)

(Rs. in lakhs)

Industry of Origin	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87*	1987-88*	1988-89†
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Agriculture	129384	131163	153826	199323	214908	205016	236967	267408	306450
2. Forestry and Logging	12382	8048	14365	10178	10609	11201	11020	9856	9324
3. Fishing	7743	6292	7923	8938	8942	11777	12104	12577	12997
4. Mining and Quarrying	461	640	754	690	1014	922	829	906	876
Sub—Total—Primary	149970	146143	176868	219129	235473	228916	260920	290747	329647
5.0 Manufacturing	53152	61585	71171	75016	79448	86308	93390	100507	108737
5.1 Registered	29080	33461	36610	41758	45368	47583	52104	56100	60218
5.2 Unregistered	24122	28124	34561	33258	34080	38725	41286	44407	48519
6.0 Electricity, Gas and Water Supply	5509	3647	2797	1785	4345	2411	6233	7494	8641
6.1 Electricity	5077	3111	2293	1102	3772	1363	4624	5849	6896
6.2 Gas	85	95	101	109	125	510	970	970	970
6.3 Water Supply	347	441	403	574	448	538	639	675	775
7.0 Construction	25702	28960	31618	39519	41976	51683	53107	58784	65944
Sub—Total—Secondary	84363	94192	105586	116320	125769	140402	152730	166785	183322
8.0 Transport, Storage and Communication	17003	19365	23484	28306	34342	39558	47221	55969	66176
8.1 Railways	419	835	1010	1181	1039	1529	1898	2790	3906
8.2 Transport by other means and Storage	14148	16122	19472	23606	29171	33556	39559	45888	53230
8.3 Communication	2436	2408	3002	3519	4132	4473	5764	7291	9040
9.0 Trade, Hotel and Restaurants	53220	55566	64206	74268	80987	82459	94456	102012	113233
10.0 Banking and Insurance	11428	16206	19808	22754	27069	30422	36540	41993	48292
11.0 Real Estate and ownership of Dwellings	9615	9630	10543	10530	11741	9390	9170	8987	9257
12.0 Public Administration	15133	16873	17489	19259	25191	31469	39062	44541	53895
13.0 Other Services	29491	34982	38743	45392	50808	59704	69828	76289	83155
Sub—Total—Tertiary	195890	152622	174268	200509	230138	253002	296277	329791	374008
Net State Domestic Product	370223	392957	456722	535958	591380	622320	709927	787323	886977
Population (000)	25312	25709	26170	26658	27157	27648	28180	28589	29041
Per—Capita Income (Rs.)	1463	1528	1745	2010	2178	2251	2519	2754	3054

* Provisional Estimate

† Quick Estimate

Source: Department of Economics and Statistics.

APPENDIX 2.4

*Net State Domestic Product of Kerala at Factor Cost by Industry of Origin for the period from 1980-81 to 1988-89
At Constant (1980-81) Prices (New Series)*

(Rs. in lakhs)

Industry of Origin	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88*	1988-89†
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Agriculture	129984	190483	128638	118576	191975	138394	131794	139649	140738
2. Forestry and logging	12382	7289	8833	6461	6036	6186	5265	4810	4269
3. Fishing	7743	5797	6958	7691	6764	7042	5917	5434	4778
4. Mining and Quarrying	461	590	481	345	540	556	583	643	722
Sub-Total—Primary	149970	144153	144910	133073	145315	152178	143559	150536	150507
5.0 Manufacturing	53152	57178	62187	58568	56916	58461	54016	53960	58405
5.1 Registered	29030	31028	32324	32391	30865	31095	27113	28743	30853
5.2 Unregistered	24122	26150	29863	26177	26051	27366	26903	25217	27552
6.0 Electricity, Gas and Water Supply	5509	3394	2438	1354	2928	1558	3335	3954	4535
6.1 Electricity	5077	2885	2025	855	2566	891	2406	2997	3533
6.2 Gas	85	84	87	95	97	394	653	655	655
6.3 Water Supply	347	425	326	404	265	273	276	302	347
7.0 Construction	25702	23736	21453	23466	21906	23738	22844	23688	26565
Sub Total—Secondary	84363	84308	86078	83388	81750	83757	80195	81594	89505
8.0 Transport, Storage and Communication	17003	19051	20150	21398	22983	25075	25810	27515	29325
8.1 Railways	419	646	629	686	705	836	807	848	899
8.2 Transport by Other means and Storage	14148	15621	16670	17526	19056	21008	21557	23065	24680
8.3 Communication	2436	2784	2851	3126	3222	3231	3446	3602	3746
9.0 Trade, Hotels and Restaurants	53220	52651	54593	51506	55461	56791	55572	56683	57080
10.0 Banking and Insurance	11428	12098	13654	14759	16486	18202	20839	22881	25169
11.0 Real Estate and Ownership of dwellings	9615	9480	10074	9965	10564	8087	7736	7427	7353
12.0 Public Administration	15133	14999	14430	14120	17360	20358	23236	24572	27462
13.0 Other Services	29491	30284	30893	31502	31947	32476	32964	33571	33907
Sub Total—Tertiary	135890	138563	143794	143190	154801	160989	166157	172649	180296
Net State Domestic Product	370223	367024	374782	359651	381866	396924	389911	404779	420308
Population in ('000)	25312	25709	26170	26658	27157	27648	28180	28539	29041
Per capita Income (Rs.)	146	142	1432	1349	1406	1436	1384	1416	1447

*Provisional Estimate

† Quick Estimate

Source: Department of Economics and Statistics.

APPENDIX 2.5

Sector-wise Distribution of Net Domestic Product of Districts at Factor cost (New Services)

(Rs. in lakhs)

District	Year	At Current Prices				At Constant (1980-81) Prices			
		Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	1980-81	12166 (32.8)	8795 (23.7)	16140 (43.5)	37101 (100.0)	12166 (32.8)	8795 (23.7)	16140 (43.5)	37101 (100.0)
	1981-82	11817 (29.9)	9696 (24.5)	17997 (45.6)	39510 (100.0)	11598 (31.7)	8671 (23.7)	16261 (44.5)	36530 (100.0)
	1982-83	13290 (29.9)	10891 (24.5)	20260 (45.6)	44441 (100.0)	10415 (29.5)	8226 (23.3)	16695 (47.2)	35936 (100.0)
	1983-84	18922 (34.8)	11799 (21.7)	23638 (43.5)	54359 (100.0)	11166 (30.5)	8416 (23.0)	16972 (46.4)	36554 (100.0)
	1984-85	19864 (32.9)	12789 (21.2)	27721 (45.9)	60374 (100.0)	13118 (32.7)	8344 (20.8)	18677 (46.5)	40139 (100.0)
	1985-86	17054 (27.3)	14283 (22.8)	31228 (49.9)	62565 (100.0)	11813 (29.5)	8500 (21.2)	19794 (49.4)	40107 (100.0)
	1986-87	19802 (27.4)	15667 (21.6)	36921 (51.0)	72390 (100.0)	10686 (26.8)	8337 (20.9)	20796 (52.2)	39819 (100.0)
	1987-88	22156 (27.5)	17158 (21.3)	41381 (51.3)	80695 (100.0)	11533 (27.7)	8420 (20.2)	21720 (52.1)	41673 (100.0)
Quilon	1980-81	19708 (46.7)	9419 (22.3)	13094 (31.0)	42221 (100.0)	19708 (46.7)	9419 (22.3)	13094 (31.0)	42221 (100.0)
	1981-82	17621 (41.4)	10470 (24.6)	14487 (34.0)	42578 (100.0)	16647 (42.4)	9486 (24.2)	13116 (33.4)	39249 (100.0)
	1982-83	23089 (45.0)	11680 (22.8)	16545 (32.2)	51314 (100.0)	18134 (43.7)	9769 (23.5)	13629 (32.8)	41532 (100.0)
	1983-84	20050 (45.1)	8901 (20.0)	15546 (34.9)	44497 (100.0)	12434 (41.5)	6463 (21.5)	11098 (37.0)	30025 (100.0)
	1984-85	20501 (42.8)	9694 (20.3)	17649 (36.9)	47844 (100.0)	13207 (42.0)	6386 (20.3)	11822 (37.6)	31415 (100.0)
	1985-86	22771 (42.9)	10687 (20.1)	19652 (37.0)	53110 (100.0)	15002 (44.3)	6492 (19.2)	12389 (35.6)	33883 (100.0)
	1986-87	25144 (42.0)	11731 (19.6)	23507 (38.5)	59932 (100.0)	13475 (41.4)	6233 (19.1)	12844 (39.5)	32532 (100.0)
	1987-88	26953 (41.2)	12813 (19.6)	25713 (39.3)	65479 (100.0)	13683 (41.0)	6349 (19.0)	13374 (40.0)	33406 (100.0)
Pathanamthitta	1983-84	8771 (41.1)	4748 (22.2)	7839 (36.7)	21358 (100.0)	6152 (40.5)	3462 (22.8)	5577 (36.7)	15191 (100.0)
	1984-85	10312 (41.6)	5153 (20.8)	9327 (37.6)	24792 (100.0)	6631 (40.6)	3421 (21.0)	6271 (38.4)	16323 (100.0)
	1985-86	11728 (42.4)	5692 (20.6)	10250 (37.0)	27670 (100.0)	7948 (44.1)	3486 (19.3)	6605 (36.6)	18039 (100.0)
	1986-87	14371 (44.0)	6239 (19.1)	12068 (36.9)	32678 (100.0)	7692 (42.9)	3353 (18.7)	6882 (38.4)	17927 (100.0)
	1987-88	15076 (42.7)	6809 (19.3)	13444 (38.1)	35329 (100.0)	7904 (42.8)	3399 (18.4)	7180 (38.8)	18483 (100.0)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(10)
Alleppey	1980-81	10149 (34.1)	6964 (23.4)	12662 (42.5)	29775 (100.0)	10149 (34.1)	6964 (23.4)	12662 (42.5)	29775 (100.0)
	1981-82	11069 (33.6)	7745 (23.5)	14111 (42.9)	32925 (100.0)	12141 (38.1)	6939 (21.8)	12778 (40.1)	31858 (100.0)
	1982-83	12563 (33.4)	8818 (23.5)	16185 (43.1)	37566 (100.0)	11725 (36.4)	7179 (22.3)	13341 (41.4)	32245 (100.0)
	1983-84	13535 (36.9)	8538 (23.3)	14609 (39.8)	36682 (100.0)	8864 (34.7)	6256 (24.5)	10403 (40.8)	25523 (100.0)
	1984-85	15619 (37.7)	9229 (22.3)	16599 (40.0)	41447 (100.0)	10494 (37.7)	6183 (22.2)	11144 (40.1)	27821 (100.0)
	1985-86	13907 (32.9)	10210 (24.1)	18204 (43.0)	42321 (100.0)	10193 (36.4)	6310 (22.5)	11493 (41.1)	27996 (100.0)
	1986-87	16826 (34.2)	11176 (22.7)	21258 (43.2)	49260 (100.0)	9036 (33.6)	6080 (22.6)	11802 (43.8)	26918 (100.0)
	1987-88	18243 (33.8)	12185 (22.6)	23607 (43.7)	54035 (100.0)	9742 (34.6)	6131 (21.8)	12247 (43.6)	28120 (100.0)
	Kottayam	1980-81	10777 (44.5)	3438 (14.2)	9991 (41.3)	24206 (100.0)	10777 (44.5)	3438 (14.2)	9991 (41.3)	24206 (100.0)
1981-82		12270 (45.1)	3715 (13.7)	11214 (41.2)	27199 (100.0)	11344 (44.7)	3887 (15.3)	10152 (40.0)	24883 (100.0)
1982-83		15250 (47.1)	4136 (12.8)	12971 (40.1)	32357 (100.0)	12078 (46.0)	3488 (13.3)	10702 (40.7)	26268 (100.0)
1983-84		18813 (49.7)	4362 (11.5)	14668 (38.8)	37843 (100.0)	10775 (44.0)	3253 (13.3)	10449 (42.7)	24477 (100.0)
1984-85		18088 (45.7)	4848 (12.2)	16667 (42.1)	39603 (100.0)	10970 (43.2)	3298 (13.0)	11152 (43.9)	25420 (100.0)
1985-86		18347 (43.8)	5175 (12.3)	18381 (43.9)	41903 (100.0)	12256 (45.2)	3274 (12.1)	11573 (42.7)	27103 (100.0)
1986-87		21520 (44.0)	5862 (12.0)	21517 (44.0)	48899 (100.0)	12183 (44.6)	3216 (11.8)	11937 (43.7)	27336 (100.0)
1987-88		24013 (44.2)	6414 (11.8)	23958 (44.1)	54385 (100.0)	12594 (44.5)	3281 (11.6)	12407 (43.9)	28282 (100.0)
Idukki		1980-81	10506 (56.5)	4909 (26.4)	3177 (17.1)	18592 (100.0)	10506 (56.5)	4909 (26.4)	3177 (17.1)	18592 (100.0)
	1981-82	12376 (58.1)	5379 (25.3)	3537 (16.6)	21292 (100.0)	11605 (59.1)	4791 (24.4)	3224 (16.4)	19620 (100.0)
	1982-83	13419 (57.6)	5822 (25.0)	4041 (17.4)	23282 (100.0)	9940 (55.2)	4721 (26.2)	3352 (18.6)	18013 (100.0)
	1983-84	17405 (61.5)	6667 (22.6)	4714 (15.8)	28786 (100.0)	9274 (57.3)	4718 (24.9)	3369 (17.7)	17361 (100.0)
	1984-85	16903 (57.2)	7386 (25.0)	5286 (17.9)	29575 (100.0)	10928 (57.2)	4631 (24.2)	3559 (18.6)	19118 (100.0)
	1985-86	18594 (57.2)	8049 (24.7)	5886 (18.1)	32529 (100.0)	12199 (59.2)	4645 (22.6)	3747 (18.2)	20591 (100.0)
	1986-87	16925 (51.9)	8873 (27.2)	6835 (20.9)	32633 (100.0)	9769 (54.4)	4372 (24.3)	3817 (21.3)	117958 (100.0)
	1987-88	21282 (55.2)	9728 (25.2)	7576 (19.6)	38586 (100.0)	11216 (56.7)	4605 (23.3)	3954 (20.0)	19775 (100.0)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Ernakulam	1980-81	12830 (26.1)	16664 (33.9)	19720 (40.1)	49214 (100.0)	12830 (26.1)	16664 (33.9)	19720 (40.1)	49214 (100.0)
	1981-82	13608 (24.7)	18804 (34.1)	22714 (41.2)	55126 (100.0)	14223 (27.5)	16836 (32.6)	20594 (39.9)	51653 (100.0)
	1982-83	16171 (25.7)	20890 (33.2)	25873 (41.1)	62934 (100.0)	14144 (26.9)	17095 (32.5)	21309 (40.6)	52548 (100.0)
	1983-84	19207 (26.9)	23577 (33.0)	28584 (40.1)	71368 (100.0)	12102 (24.4)	16923 (34.1)	20650 (41.6)	49675 (100.0)
	1984-85	23407 (28.9)	25448 (31.4)	32187 (39.7)	81042 (100.0)	14734 (27.9)	16364 (31.0)	21772 (41.2)	52870 (100.0)
	1985-86	21519 (25.6)	28303 (33.7)	34149 (40.7)	84771 (100.0)	14929 (27.6)	16782 (31.1)	22296 (41.3)	54007 (100.0)
	1986-87	25614 (26.5)	30587 (31.6)	40552 (41.9)	96753 (100.0)	13920 (26.5)	15658 (29.8)	22901 (43.6)	52479 (100.0)
	1987-88	28104 (26.3)	33333 (31.2)	45310 (42.4)	106747 (100.0)	14685 (26.8)	16133 (29.5)	23903 (43.7)	54721 (100.0)
	Trichur	1980-81	12263 (35.9)	8109 (23.7)	13800 (40.4)	34172 (100.0)	12263 (35.9)	8109 (23.7)	13800 (40.4)	34172 (100.0)
1981-82		12381 (33.5)	9048 (24.5)	15561 (42.1)	36990 (100.0)	13099 (37.1)	8052 (22.8)	14112 (40.0)	35263 (100.0)
1982-83		15149 (11.3)	101109 (75.4)	17922 (13.4)	43180 (100.0)	13241 (36.6)	8150 (22.5)	14780 (40.9)	36171 (100.0)
1983-84		18545 (36.8)	11552 (22.3)	20650 (40.9)	50447 (100.0)	12225 (34.9)	7962 (22.8)	14802 (42.3)	34989 (100.0)
1984-85		17490 (33.0)	12171 (23.0)	23292 (44.0)	52953 (100.0)	10773 (31.5)	7786 (22.7)	15681 (45.8)	34240 (100.0)
1985-86		17387 (30.7)	13669 (24.2)	25523 (45.1)	56579 (100.0)	13026 (34.9)	7997 (21.5)	16258 (43.6)	37281 (100.0)
1986-87		20228 (31.2)	14819 (22.9)	29769 (45.9)	64816 (100.0)	11561 (32.2)	7654 (21.3)	16678 (46.5)	35893 (100.0)
1987-88		22777 (31.6)	16201 (22.5)	33084 (49.5)	72062 (100.0)	12832 (33.8)	7811 (20.6)	17314 (45.6)	37957 (100.0)
Paighat		1980-81	10758 (41.9)	5608 (21.8)	9311 (36.3)	25677 (100.0)	10758 (41.9)	5608 (21.8)	9311 (36.3)	25677 (100.0)
	1981-82	12238 (42.2)	6270 (21.6)	10514 (36.2)	29022 (100.0)	11535 (43.2)	5618 (21.0)	9538 (35.7)	26691 (100.0)
	1982-83	13768 (41.8)	7159 (21.8)	11985 (36.4)	32912 (100.0)	10818 (39.7)	5835 (22.4)	9855 (37.9)	26008 (100.0)
	1983-84	15683 (41.9)	7674 (20.6)	13968 (37.5)	37275 (100.0)	9307 (37.6)	5523 (22.3)	9898 (40.0)	24728 (100.0)
	1984-85	16195 (40.3)	8237 (20.5)	15717 (39.1)	40149 (100.0)	9679 (37.7)	5460 (21.3)	10554 (41.1)	25693 (100.0)
	1985-86	16337 (38.2)	9294 (21.7)	17102 (40.0)	42733 (100.0)	9811 (37.2)	5631 (21.4)	10903 (41.4)	26345 (100.0)
	1986-87	20519 (48.5)	1082 (2.6)	20744 (49.0)	51345 (100.0)	11959 (40.9)	5490 (18.8)	11771 (40.3)	29220 (100.0)
	1987-88	21933 (39.2)	11008 (19.7)	23005 (41.1)	55946 (100.0)	11186 (38.8)	5481 (19.0)	12167 (42.2)	28334 (100.0)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Malappuram	1980-81	11986 (49.9)	2759 (11.5)	9287 (38.6)	24032 (100.0)	11986 (49.9)	2759 (11.5)	9287 (38.6)	24032 (100.0)
	1981-82	10938 (45.0)	3057 (12.6)	10324 (42.5)	24319 (100.0)	10141 (45.7)	2645 (11.9)	9399 (42.4)	22185 (100.0)
	1982-83	12720 (45.5)	3406 (12.2)	11827 (42.3)	27953 (100.0)	10157 (45.1)	2588 (11.5)	9767 (43.4)	22512 (100.0)
	1983-84	14149 (44.4)	3880 (12.2)	13826 (43.4)	31885 (100.0)	8968 (42.0)	2576 (12.1)	9784 (45.9)	21328 (100.0)
	1984-85	17027 (46.1)	4178 (11.3)	15729 (42.6)	36934 (100.0)	9673 (42.6)	2512 (11.1)	10535 (46.4)	22720 (100.0)
	1985-86	16109 (42.1)	4888 (12.8)	17300 (45.2)	38297 (100.0)	9945 (42.2)	2636 (11.2)	10974 (46.6)	23555 (100.0)
	1986-87	19503 (43.4)	5252 (11.7)	20158 (44.9)	44913 (100.0)	10826 (44.0)	2600 (10.6)	11179 (45.4)	24605 (100.0)
	1987-88	20992 (42.7)	5774 (11.8)	22368 (45.5)	49134 (100.0)	10611 (42.7)	2643 (10.6)	11571 (46.6)	24825 (100.0)
Kozhikode	1980-81	16048 (40.1)	9871 (24.6)	14130 (35.3)	40049 (100.0)	16048 (40.1)	9871 (24.6)	14130 (35.3)	40049 (100.0)
	1981-82	9342 (27.8)	9785 (29.1)	14534 (43.2)	33661 (100.0)	9410 (29.8)	8764 (27.8)	13356 (42.4)	33530 (100.0)
	1982-83	14886 (35.0)	11042 (26.0)	16550 (39.0)	42478 (100.0)	13014 (36.3)	9014 (25.2)	13800 (38.5)	35828 (100.0)
	1983-84	21981 (41.3)	12153 (22.8)	19110 (35.9)	53244 (100.0)	12011 (35.0)	8733 (25.4)	13578 (39.6)	34412 (100.0)
	1984-85	21719 (38.6)	13039 (23.2)	21565 (38.3)	56321 (100.0)	12009 (34.3)	8516 (24.3)	14525 (41.4)	35050 (100.0)
	1985-86	15882 (29.4)	14652 (27.1)	23490 (43.5)	54024 (100.0)	12205 (33.9)	8782 (24.4)	15048 (41.8)	36035 (100.0)
	1986-87	16946 (28.2)	15822 (26.3)	27323 (45.5)	60091 (100.0)	9279 (28.2)	8364 (25.4)	15309 (46.5)	32952 (100.0)
	1987-88	19574 (29.2)	17248 (25.7)	30320 (45.2)	67142 (100.0)	10925 (31.0)	8470 (24.0)	15847 (45.3)	35242 (100.0)
Wayanad	1981-82	7850 (67.3)	1784 (15.3)	2034 (17.4)	11668 (100.0)	8431 (71.2)	1631 (13.8)	1781 (15.0)	11843 (100.0)
	1982-83	6557 (60.3)	2054 (18.9)	2254 (20.7)	10865 (100.0)	4728 (57.3)	1743 (21.1)	1778 (21.6)	8249 (100.0)
	1983-84	6489 (56.9)	2180 (19.1)	2729 (23.9)	11398 (100.0)	3569 (49.9)	1645 (23.0)	1940 (27.1)	7134 (100.0)
	1984-85	9851 (64.0)	2317 (15.0)	3233 (21.0)	15401 (100.0)	6909 (64.7)	1606 (15.0)	2164 (20.3)	10679 (100.0)
	1985-86	10797 (63.3)	2570 (15.1)	3691 (21.6)	17058 (100.0)	6314 (61.1)	1661 (16.1)	2352 (22.8)	10327 (100.0)
	1986-87	17166 (68.2)	2784 (14.5)	4292 (22.3)	19242 (100.0)	6640 (62.6)	1572 (14.8)	2401 (22.6)	10613 (100.0)
	1987-88	13680 (63.7)	3013 (14.0)	4769 (22.2)	21462 (100.0)	6648 (62.1)	1569 (14.6)	2496 (23.3)	10713 (100.0)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Cannanore	1980-81	22779 (50.4)	7827 (17.3)	14578 (32.3)	45184 (100.0)	22779 (50.4)	7827 (17.3)	14578 (32.3)	45184 (100.0)
	1981-82	14633 (37.8)	8439 (21.8)	15595 (40.3)	38667 (100.0)	13979 (39.1)	7478 (20.9)	14252 (39.9)	35719 (100.0)
	1982-83	20006 (42.2)	9579 (20.2)	17855 (37.6)	47440 (100.0)	17016 (43.1)	7670 (19.4)	14786 (37.5)	39472 (100.0)
	1983-84	25629 (45.1)	10589 (18.6)	20628 (36.3)	56846 (100.0)	16106 (42.1)	7458 (19.5)	14670 (38.4)	38234 (100.0)
	1984-85	28497 (43.9)	11280 (17.4)	25166 (38.8)	64943 (100.0)	16190 (40.1)	7243 (17.9)	16945 (42.0)	40378 (100.0)
	1985-86	17919 (38.6)	8929 (19.2)	19590 (42.2)	46438 (100.0)	11749 (40.2)	5218 (17.9)	12255 (41.9)	29222 (100.0)
	1986-87	20458 (38.8)	9553 (18.1)	22724 (43.1)	52735 (100.0)	10652 (37.9)	5014 (17.9)	12407 (44.2)	28073 (100.0)
	1987-88	23022 (39.2)	10427 (17.8)	25280 (43.0)	58729 (100.0)	11502 (39.1)	5041 (17.2)	12849 (43.7)	29392 (100.0)
Kasaragod	1985-86	10565 (47.3)	4001 (17.9)	7756 (34.7)	22322 (100.0)	4788 (38.5)	2343 (18.8)	5302 (42.6)	12433 (100.0)
	1986-87	10898 (45.0)	4283 (17.7)	9059 (37.4)	24240 (100.0)	5881 (43.4)	2252 (16.6)	5433 (40.0)	13566 (100.0)
	1987-88	12942 (46.9)	4674 (16.9)	9976 (36.2)	27592 (100.0)	5475 (41.0)	2261 (16.9)	5620 (42.1)	13356 (100.0)
Kerala State	1980-81	149970 (40.5)	84363 (22.8)	135890 (36.7)	370223 (100.0)	149970 (40.5)	84363 (22.8)	135890 (36.7)	370223 (100.0)
	1981-82	146143 (37.2)	94192 (24.0)	152622 (38.8)	392957 (100.0)	144153 (39.3)	84308 (23.0)	138563 (37.8)	367024 (100.0)
	1982-83	176868 (38.7)	105586 (23.1)	174268 (38.2)	456722 (100.0)	144910 (38.7)	86078 (23.0)	143794 (38.4)	374782 (100.0)
	1983-84	219129 (40.9)	116320 (21.7)	200509 (37.4)	535958 (100.0)	133073 (37.0)	83388 (23.2)	143190 (39.8)	359651 (100.0)
	1984-85	235473 (39.8)	125769 (21.3)	230138 (38.9)	591380 (100.0)	145315 (38.1)	81750 (21.4)	154801 (40.5)	381866 (100.0)
	1985-86	228916 (36.8)	140402 (22.6)	253002 (40.7)	622320 (100.0)	152178 (38.3)	83757 (21.1)	160989 (40.6)	396924 (100.0)
	1986-87	260920 (36.8)	152730 (21.5)	296277 (41.7)	709927 (100.0)	143559 (36.8)	80195 (20.6)	166157 (42.6)	389911 (100.0)
	1987-88	290747 (36.9)	166785 (21.2)	329791 (41.9)	787323 (100.0)	150536 (37.2)	81594 (20.2)	172649 (42.7)	404779 (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.

APPENDIX 2.6

Per capita Income at Current and Constant Prices 1980-81 & 1987-88

(In Rs.)

District	Constant Prices		Current Prices	
	1980-81	1987-88	1980-81(P)	1987-88(P)
(1)	(2)	(3)	(4)	(5)
Trivandrum	1441 (6)	1429 (4)	1441 (6)	2767 (4)
Quilon	1503 (5)	1356 (7)	1503 (5)	2657 (7)
Pathanamthitta	..	1486	-	2840
Alleppey	1269 (9)	1342 (8)	1269 (9)	2579 (9)
Kottayam	1430 (7)	1483 (3)	1430 (7)	2852 (3)
Idukki	1929 (2)	1816 (2)	1929 (2)	3543 (2)
Ernakulam	1950 (1)	1922 (1)	1950 (1)	3749 (1)
Trichur	1408 (8)	1386 (6)	1408 (8)	2631 (8)
Palghat	1265 (10)	1256 (9)	1265 (10)	2437 (10)
Malappuram	1011 (11)	920 (10)	1011 (11)	1820 (11)
Kozhikode	1534 (3)	1397 (5)	1534 (3)	2662 (6)
Wynad	..	1720	..	3445
Cannanore	1528 (4)	1356 (7)	1528 (4)	2710 (5)
Kasargod	..	1361	..	2813
State	1463	1416	1463	2754

Note: P—Provisional.

Figures in brackets show the respective ranks. Since the district of Pathanamthitta, Wayanad and Kasargod are formulated after 1980 and the ranks are uncomparable these districts have not been given ranks.

APPENDIX 2.7

Revised Estimates of National Products Savings and Capital Formation at Current Prices

Year	Gross National Product at Factor cost (Rs. crores)	Net National Product at Factor cost (Rs. crores)	Per capita Net National Product (Rs. crores)	Gross Domestic Saving (Rs. crores)	Gross Domestic Capital formation (Rs. crores)
(1)	(2)	(3)	(4)	(5)	(6)
1980-81	122571	110484	1627	28773	30867
1987-88@	291789	257913	3286	65309	72134
1988-89*	346277	306822	3835	82044	93544

Source: Central Statistical Organisation (National Accounts Division)

Note. @—Provisional estimates

*—Quick estimates

APPENDIX 2.8

Distribution of Work Seekers in Kerala by Educational Levels

Period	Total work seekers	Below S.S.L.C.	% to total work seekers	S.S.L.C.	Pre-degree	Graduates	Post-Graduates	S.S.L.C. & above	% to total work seekers
(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	77694	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	12808724	46.95	1116495	148464	90329	10062	1365950	53.05
31-12-1986	2704874	1209462	44.70	1251793	136193	97217	10209	1495412	55.30
31-12-1987	2991022	1270764	42.50	1494413	161155	111008	13682	1720258	57.50
31-12-1988	2901051	1185145	40.80	1438051	160233	100330	17292	1715906	59.10
31-7-1989	3066899	1205484	39.30	1551843	183045	106095	20432	1861415	60.70

Source: Directorate of Employment, Trivandrum.

APPENDIX 2.9

Number of Professional and Technical Work Seekers: Kerala 1980 to 1989

Period ending	(Number)					
	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	63056	177	72
31-12-1988	1934	4380	16766	64629	324	49
31-7-1989	1438	5871	17652	66173	413	9

Source: Directorate of Employment, Trivandrum.

APPENDIX 2.10

Employment in the Organised Sectors: Kerala 1970—1988

(Index Base 1979—100)

Period ending	Public Sector		Private Sector		Total	
	No.	Index	No.	Index	No.	Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)
31-01-1970	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
31-1-2-1984	565587	118.8	513503	100.9	1079090	109.6
31-12-1985	568718	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
31-12-1988	602248	126.5	501480	98.5	1103728	112.2

Source: Directorate of Employment, Trivandrum.

APPENDIX 2.11

Unemployment Assistance Scheme: Kerala 1982-88 to 1988-89

Unemployment Assistance Scheme

Year	Unemployment Assistance Scheme		
	Application received	No. of Beneficiaries*	Amount disbursed (Rs. in lakhs)
(1)	(2)	(3)	(4)
1982-83	161211	44011	80.22
1983-84	44744	98261	649.79
1984-85	102939	136471	768.52
1985-86	48715	179146	1012.08
1986-87	113809	218446	835.00
1987-88	92555	..	1095.65
1988-89	64887	215456	2353.77
1989-90@	81065	226519	1338.24
Total	709925		8133.27

* Note: The Beneficiaries of the previous years is brought forward and unemployment allowance is paid in eligible cases.

@ April 1989 to November 1989.

Source: Directorate of Employment, Trivandrum.

APPENDIX 3.1

Wholesale Price Index of Agricultural Commodities Kerala 1989

(Base 1952-53—100)

Crops	January	February	March	April	May	June	July	August	September	October	November	December
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Rice	535.2	545.2	545.2	545.2	545.2	545.2	545.2	545.2	545.2	545.2	545.2	545.2
2. Molasses	760.3	775.7	784.5	798.1	823.9	850.5	866.8	988.9	1049.5	1003.4	1124.5	1093.0
3. Condiments and Spices	585.4	674.3	727.1	810.7	878.2	942.7	778.6	731.9	776.6	719.0	691.0	734.3
4. Fruits & Vegetables	1166.6	1225.1	1290.4	1339.3	1350.6	1313.2	1323.5	1363.8	1425.9	1432.9	1442.2	1433.1
5. Food Crops	657.3	688.5	708.4	730.8	744.8	749.6	725.1	728.2	747.9	798.2	799.1	793.3
6. Oil Seeds	1848.3	1724.8	1593.5	1497.9	1409.5	1348.2	1261.2	1246.4	1271.4	1237.7	1244.8	1308.6
7. Plantation Crops	614.3	634.2	673.3	712.7	711.2	735.6	742.2	822.9	856.1	887.1	869.8	867.1
8. Non-Food Crops	1475.6	1395.4	1273.7	1260.8	1198.6	1163.2	1104.5	1118.5	1146.0	1131.8	1131.6	1175.3
All Crops	956.0	946.5	914.7	924.3	910.2	900.6	863.6	870.7	893.2	881.9	882.4	901.0

Source: Directorate of Economics and Statistics.

APPENDIX 3.2

Month end Average Retail Prices of Essential Commodities for the year 1969-Kerala

(Rs.)

Name of Commodities	Unit	Prices at the end of the month											
		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 (O.M)	Kg.	5.46	5.44	5.41	5.40	5.48	5.86	5.87	5.82	5.26	5.25	5.26	5.20
2. Greengram	"	9.99	10.74	11.26	11.88	12.13	12.15	11.54	10.69	10.12	10.17	10.36	10.34
3. Blackgram (Split without husk)	"	11.69	11.36	11.20	11.93	11.90	12.20	11.90	12.31	12.47	12.34	12.13	11.63
4. Redgram	"	6.99	7.06	7.46	7.55	7.41	7.38	7.28	7.34	7.87	7.79	7.77	7.42
5. Dhall	"	12.01	11.19	11.13	11.21	11.43	11.76	11.70	12.08	12.48	12.71	12.61	12.20
6. Sugar	"	6.54	6.69	7.24	7.65	8.29	7.78	8.54	9.48	9.02	8.97	9.17	8.08
7. Milk (Cow's)	Litre	4.93	4.93	4.95	4.95	4.95	4.98	4.98	4.98	5.18	5.22	5.22	5.2
8. Tea (Kannan Devan).	Kg.	36.86	37.07	38.79	39.07	38.92	38.92	44.76	47.38	55.54	62.38	63.86	62.42
9. Coffee Powder (F.B.)	"	35.08	35.55	35.72	35.92	35.92	34.70	34.10	34.12	34.14	33.94	33.94	34.06
10. Babyfood (Amul)	"	56.41	56.41	56.65	58.24	58.47	59.26	59.26	59.78	60.04	60.04	60.04	60.04
11. Egg (Hen's)	Doz.	8.34	8.47	6.67	7.84	7.47	8.88	7.41	8.27	7.44	7.37	7.96	7.92
12. Mutton (with bones)	Kg.	36.71	36.71	36.71	37.14	37.14	37.29	37.57	37.71	37.86	37.86	37.86	37.86
13. Coconut Oil	"	34.63	29.20	27.19	27.19	27.04	26.06	25.65	25.45	25.99	25.34	25.81	25.95
14. Groundnut Oil	"	24.68	24.28	23.51	24.93	25.13	25.25	25.70	26.45	29.07	30.20	29.67	26.98
15. Refined Oil (Postman)	"	38.87	38.00	37.22	37.04	37.35	38.73	40.57	40.73	42.12	44.06	44.52	44.05
16. Gingelly Oil	"	25.79	25.39	25.21	26.35	26.54	26.57	26.39	26.46	29.08	29.33	29.21	29.12
17. Coconut (without husk)	100 Nos.	318.93	284.64	266.79	265.00	253.00	237.50	230.71	228.93	228.57	226.43	234.64	245.36
18. Corriander	Kg.	9.69	9.96	11.38	12.27	12.27	12.15	11.35	11.17	11.21	11.24	11.06	11.86
19. Chillies	"	32.36	23.29	23.15	24.54	27.14	26.36	24.64	24.00	23.50	20.71	19.82	17.82
20. Onion	"	3.04	3.02	3.00	3.46	3.61	3.30	2.99	2.79	3.26	3.57	3.93	3.61
21. Tamarind	"	11.32	10.36	10.00	10.11	10.14	10.46	10.57	10.64	10.57	10.79	10.79	10.71
22. Chenai	"	2.16	2.21	2.29	2.36	2.54	2.69	2.33	2.32	2.18	2.31	2.19	2.09
23. Tapioca (Raw)	"	1.48	1.64	1.78	1.73	1.74	1.71	1.73	1.81	1.94	1.95	2.02	2.05
24. Potato	"	2.92	2.61	2.61	2.73	3.44	3.48	4.02	3.34	2.95	2.93	3.04	3.26
25. Colocasia	"	2.79	3.04	3.50	3.71	4.21	4.68	4.38	4.04	4.08	3.73	3.46	3.04
26. Banana	"	4.46	3.91	3.59	4.38	5.57	5.77	5.30	5.83	5.80	5.79	5.06	4.81
27. Onion (Big)	"	2.91	2.53	2.25	2.10	2.05	2.18	2.25	2.13	2.40	3.26	3.49	2.49
28. Brinjal	"	3.04	3.14	3.00	3.04	3.25	3.18	3.30	3.14	3.18	3.07	3.46	3.14
29. Pumpkin	Kg.	2.21	2.19	2.18	2.58	2.79	2.76	2.26	2.07	2.02	2.18	2.14	2.21
30. Cucumber	"	1.91	2.27	2.25	2.26	2.52	3.13	2.89	2.79	2.27	2.81	2.86	2.57
31. Ladies finger	"	3.75	4.00	4.21	3.71	3.79	3.51	3.91	3.57	3.25	3.39	3.46	3.39

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
32.	Bittergourd	Kg.	4.21	4.24	4.54	4.54	5.50	6.32	5.32	5.07	4.79	5.93	5.84	4.96
33.	Ashgourd	"	1.76	1.88	2.12	2.24	2.25	2.25	2.18	2.27	1.99	2.00	2.10	2.09
34.	Chilies (green)	"	6.57	6.46	6.50	6.96	7.50	7.82	6.20	6.43	4.64	4.54	5.64	4.96
35.	Plantain (green)	"	3.18	3.13	3.00	3.07	3.21	3.21	3.39	3.46	3.46	3.64	3.57	3.39
36.	Cabbage	"	2.26	2.04	1.96	2.25	3.11	2.86	2.86	3.43	3.43	3.61	3.43	3.00
37.	Snake gourd	"	2.57	2.70	2.96	2.79	3.36	3.61	3.46	3.54	3.11	3.32	3.57	3.36
38.	Tobacco	"	17.95	17.45	18.25	18.06	19.56	20.75	20.89	20.88	20.89	21.33	21.33	23.69
39.	Mundu (Mull)	each	21.24	21.24	21.27	21.27	22.06	22.43	22.39	22.41	22.89	22.32	22.89	22.95
40.	Washing Soda	Kg.	6.30	6.30	6.39	6.50	6.57	6.67	6.69	6.75	6.88	6.96	6.96	6.93
41.	Washing Soap	each	3.88	3.88	3.81	3.77	3.76	3.86	3.86	3.76	3.78	3.78	3.73	3.73
42.	Toilet Soap (Lux)	"	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.11	4.13	4.12
43.	Tooth Paste	50 gm.	8.86	9.02	9.21	9.24	9.28	9.35	9.36	9.36	9.36	9.41	9.55	9.64
44.	Razor blade	5 Nos.	2.44	2.41	2.41	2.43	2.43	2.44	2.48	2.51	2.51	2.54	2.57	2.67
45.	Crossin	2 tab.	0.41	0.41	0.41	0.41	0.42	0.42	0.42	0.43	0.46	0.47	0.47	0.48
46.	Electric bulb	each	5.60	5.60	5.68	5.81	5.81	5.98	6.03	6.04	6.19	6.24	6.29	6.34
47.	Torch battery (ordinary)	"	4.20	4.23	4.25	4.25	4.25	4.24	4.24	4.27	4.31	4.31	4.33	4.30
48.	Paper	24 sheets	2.94	3.22	3.39	3.42	3.48	3.77	3.77	3.83	3.85	3.87	3.92	3.88
49.	Firewood (Local Split)	Qtl.	67.55	67.55	66.25	63.21	63.21	67.73	67.73	67.73	67.73	65.38	62.86	63.14
50.	Cement (Ordinary)	bag	76.40	75.69	74.52	77.44	79.94	82.52	82.77	82.50	82.29	83.96	85.29	84.71

Source: Directorate of Economics & Statistics.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
II. Fuel, Power, Light and Lubricants	84.6	672.0	672.0	677.4	690.2	697.6	700.00	701.6	704.6
III. Manufactured Products	498.7	421.0	413.2	407.4	411.0	414.4	425.4	437.1	448.0
1. Manufactured Products (Item-wise)									
(i) Food Products	133.2	452.9	413.5	399.0	394.1	390.6	407.5	436.9	467.2
(ii) Dairy Products	9.9	451.2	451.2	451.2	451.2	451.2	480.2	471.8	471.6
(iii) Sugar, Khandasari & Gur	72.4	491.9	418.8	393.8	393.5	395.7	426.4	472.1	517.3
(iv) Edible Oils	37.2	426.5	423.6	419.6	408.1	395.0	387.1	400.7	417.5
2. Beverages, Tobacco and Tobacco Products	27.1	377.5	377.8	377.6	377.8	378.1	402.8	403.9	404.0
3. Textiles	110.2	327.5	333.2	326.5	333.0	339.6	344.6	350.8	355.5
4. Paper and Paper Products	8.5	427.1	427.1	426.5	427.6	427.6	428.7	435.2	493.9
5. Leather and Leather Products	3.9	599.5	599.5	616.1	637.5	637.5	637.5	638.2	639.3
6. Rubber and Rubber Products	12.1	415.4	418.6	418.6	418.6	418.6	418.6	425.2	1383.2
7. Chemical and Chemical Products	55.5	375.0	376.6	374.6	378.6	379.6	379.3	380.4	382.8
(i) Fertilizers	12.5	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4
(ii) Pesticides	1.2	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4
(iii) Drugs and Medicines	9.8	275.4	276.2	276.2	276.2	276.2	276.2	276.0	285.9
8. Non-Metallic Mineral Products	14.2	473.6	462.1	464.6	460.8	467.1	485.4	501.2	510.2
9. Basic Metals, Alloys and Metal Products	59.7	590.9	597.5	599.4	608.5	622.9	644.7	650.4	651.7
10. Machinery and Transport Equipment	67.1	406.1	411.3	407.0	420.3	427.1	433.3	439.9	440.8
(i) Motor Vehicles and Parts	13.7	493.9	465.2	465.3	466.0	484.8	494.2	532.9	533.3
(ii) Miscellaneous Products	7.2	313.6	313.6	313.6	313.6	313.6	314.4	315.1	315.3

Source: Centre for Monitoring Indian Economy

APPENDIX 3.5

Upto September
1988 Base 1960=100
1989 Base 1982=100

Consumer price Index Number for Industrial Workers—All India and selected centres

Centre	1988										1989			
	July	August	September	October	November	December	January	February	March	April	May	June	July	August
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
All India	795	800	806	167	168	166	165	165	166	167	169	170	172	174
Ahemadabad	773	775	776	166	167	163	162	161	161	162	165	167	169	172
Alwaye	814	805	831	161	163	162	162	162	163	163	165	167	167	166
Bangalore	879	875	889	158	160	159	159	159	160	161	162	164	165	166
Bombay	863	863	867	173	174	169	170	170	171	172	174	176	176	181
Calcutta	794	794	795	174	174	171	171	171	172	173	175	175	177	178
Coimbatore	851	855	852	161	162	163	162	162	162	164	167	167	168	168
Delhi	863	876	870	178	179	175	175	177	177	178	179	179	180	182
Gwalior	776	804	831	846	856	862	862	840	838	836	855	863	881	886
Hyderabad	827	843	847	163	165	162	161	159	160	161	164	166	166	167
Jamshedpur	753	758	755	163	164	162	160	160	161	161	162	163	166	166
Madras	812	811	819	165	168	167	167	167	166	165	167	168	170	173
Madurai	827	830	835	164	165	171	170	171	171	172	172	172	173	173
Mundakayam	781	743	755	164	169	169	169	169	170	170	171	174	172	172
Nagpur	802	802	818	171	172	168	171	169	169	170	174	175	176	180

* Base for this centre continues to be 1960=100

Source: RII Bulletin

APPENDIX 3.6

Consumer Price Index Number for Agricultural Labourers—State wise

(1960-61=100)

State	1988				1989							
	Sept- ember	Octo- ber	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	710	724	737	741	739	726	729	721	727	736	746	756
Andhra Pradesh	607	640	656	668	663	618	610	609	609	615	611	627
Assam	7198	723	733	732	716	721	736	746	751	760	778	781
Bihar	753	753	757	743	742	748	759	745	748	758	770	779
Gujarat	615	613	610	614	612	599	605	615	619	628	635	656
Jammu & Kashmir	737	739	744	739	731	725	726	707	717	725	725	740
Karnataka	712	724	739	783	784	757	735	736	751	751	756	764
Kerala	766	758	763	782	811	793	808	817	828	841	851	836
Madhya Pradesh	721	734	749	757	776	775	787	768	779	797	812	814
Maharashtra	646	686	703	750	747	715	713	709	741	750	763	766
Orissa	793	796	767	739	730	719	720	725	748	763	779	794
Punjab	756	783	845	833	823	815	811	792	771	783	796	815
Rajasthan	727	744	748	744	746	738	742	718	715	739	742	760
Tamil Nadu	667	676	695	709	712	691	685	695	705	705	708	709
Uttar Pradesh	791	818	839	832	829	829	834	786	767	779	794	818
West Bengal	703	700	702	683	666	664	679	691	707	717	727	742

Source: RBI Bulletin.

APPENDIX 3.7

Consumer Price Index Number for Urban Non Manual Employees— All India and Selected Centres

(Base 1984-85=100)

Centre	1988				1989							
	Septem- ber	Octo- ber	Novem- ber	Decem- ber	Janua- ry	Febru- ary	March	April	May	June	July	August
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
All India	136	138	138	137	138	138	138	139	140	142	144	146
Bombay	129	130	131	130	131	131	132	133	135	136	138	140
Delhi-New Delhi	136	138	138	135	136	137	138	139	139	140	140	146
Calcutta	136	136	136	135	135	138	139	140	142	144	146	146
Madras	140	142	145	145	146	145	145	146	147	148	151	152
Hyderabad- Secunderabad	137	139	140	139	141	140	140	141	143	145	149	152
Bangalore	137	138	139	139	140	141	141	143	144	145	146	146
Lucknow	135	137	137	134	133	133	134	134	135	136	138	139
Ahamadabad	130	133	131	130	129	129	128	129	130	130	134	138
Jaipur	139	141	141	140	142	143	144	143	142	143	147	149
Patna	134	137	137	135	136	136	136	133	133	134	141	144
Srinagar	137	140	141	140	140	140	141	142	142	142	144	144
Trivandrum	128	129	131	132	135	135	134	135	136	137	139	140
Cuttack-Bhubaneswar	132	136	136	133	133	132	132	132	134	138	140	141
Bhopal	142	146	146	144	144	143	143	144	145	148	150	152
Chandigarh	143	146	146	144	146	146	147	148	148	150	155	157
Shillong	149	149	150	150	150	150	151	151	153	153	153	154

Source: RBI Bulletin

37/1086/MC.

APPENDIX 3.8.

Whole Sale Price Index of Agricultural Commodities—Kerala 1979-89

(Base 1952-53=100)

Group (1)	Weight (2)	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
A. Food Crops	63.5	364	388	417	413	499	597	582	679	709	696	725
1. Food grains (Rice)	40.4	319	319	319	319	406	442	448	501	529	533	544
2. Molasses	2.0	384	629	606	412	626	629	709	689	626	881	909
3. Condiments & Spices	10.4	378	403	442	439	548	854	637	1324	1435	775	754
4. Fruits & Vegetables	10.7	518	589	728	740	779	913	1008	758	858	1199	1342
B. Non Food Crops	36.5	545	673	680	672	930	1477	966	1089	1324	1428	1215
1. Oil Seeds	25.5	648	822	819	796	1112	1863	1142	1272	1650	1795	1411
2. Plantation Crops	11.0	306	331	358	386	508	585	560	509	568	578	761
C. All Crops	100.00	430	492	513	507	656	918	722	800	933	963	904

Source: Directorate of Economics & Statistics.

APPENDIX 3.9

Farm Commodity Prices—Kerala

(1)	Paddy/Quintal		Tapioca/Quintal		Coconut/1000		Pepper/Quintal		Ginger/Quintal	
	1988	1989	1988	1989	1988	1989	1988	1989	1988	1989
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
January	264.97	305.01	106.44	94.39	2754.80	2904.80	4244.93	3590.58	1891.25	1350.78
February	267.39	304.57	104.00	99.60	2831.60	2582.80	4078.03	4434.43	1806.81	1875.07
March	267.51	302.91	101.74	104.79	2860.40	2378.40	3644.87	4685.18	1796.51	1902.02
April	268.28	303.94	99.41	111.20	2910.60	2303.20	3452.95	4830.03	1827.08	1935.61
May	270.12	302.77	102.01	115.05	2839.40	2137.50	3385.24	4430.54	1685.25	1861.96
June	280.41	311.11	94.31	112.92	2750.50	2032.20	3420.13	4513.43	1596.56	1925.75
July	289.06	317.57	92.60	116.87	2734.50	1844.40	3318.08	4446.87	1476.88	2093.19
August	292.81	318.01	92.71	122.88	2726.70	1839.50	3027.24	4301.01	1357.81	2070.83
September	274.71	299.26	93.04	128.94	2802.70	1864.40	3234.62	4295.61	1192.19	2076.94
October	272.00	286.30	92.85	132.97	2895.30	1851.50	3721.03	4168.45	1270.00	2117.81
November	283.28	291.61	92.60	136.15	3006.40	1882.00	3583.14	3905.70	1244.12	1961.94
December	298.62	290.45	90.60	141.03	3006.60	1978.00	3451.67	3121.96	1311.04	1977.08
Average	277.43	302.79	96.86	118.1	2843.30	2133.23	3513.49	4227.00	1537.96	1929.1

APPENDIX 3.9 Contd-

Farm Commodity Prices—Kerala

(1)	Cashew/Quintal		Sugarcane/tonne		Arecanut/100 Nos		Banana/100 Nos.	
	1988	1989	1988	1989	1988	1989	1988	1989
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
January	N.T.	N.T.	311.13	283.89	7.77	9.13	60.74	56.80
February	1060.12	1141.50	296.88	273.33	8.26	10.20	62.43	56.98
March	1106.35	1176.60	275.00	300.00	10.13	11.27	59.94	52.56
April	1146.43	1176.2	272.50	300.00	12.21	12.73	61.41	55.72
May	1097.62	1150.21	277.50	300.00	15.18	14.23	68.40	65.77
June	1082.50	1137.50	340.00	320.00	19.90	15.58	69.77	72.61
July	1070.00	N.T.	330.00	320.00	20.43	13.05	66.17	69.70
August	N.T.	N.T.	330.00	355.00	14.46	12.27	63.48	72.32
September	N.T.	N.T.	310.00	330.00	11.57	11.64	59.78	74.52
October	N.T.	N.T.	290.00	298.33	9.91	10.75	57.54	73.25
November	N.T.	N.T.	293.30	295.00	8.92	10.65	54.16	69.50
December	N.T.	N.T.	293.33	303.33	8.72	11.22	52.87	64.86
Average	1093.84	1156.4	301.6	306.57	12.29	11.89	61.36	65.38

APPENDIX 4.1

District-wise Monthly Rainfall (in mm.)

Year 1989

District	January	February	March	April	May	June	July	August	September	October	November	December	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Trivandrum	48	0	53	154	131	381	229	130	265	284	87	14	1776
2. Quilon	8	0	36	202	219	618	413	276	427	432	128	8	2767
3. Alleppey	16	2	42	156	153	590	403	356	351	330	85	28	2512
4. Kottayam	7	0	0	143	271	707	454	341	299	410	78	1	2711
5. Idukki	0	0	48	97	168	733	1233	519	468	330	113	22	3731
6. Pathanamthitta	0	0	0	103	231	615	386	334	334	304	141	8	2436
7. Ernakulam	3	0	41	92	271	696	539	328	356	398	115	5	2844
8. Trichur	0	0	0	36	109	796	540	312	227	409	60	3	2492
9. Palghat	0	0	19	39	88	568	484	227	187	220	36	0	1868
10. Malappuram	0	0	0	14	29	723	502	250	292	268	73	0	2151
11. Kozhikode	0	0	12	69	183	981	566	361	229	337	83	10	2831
12. Wayanad	0	0	7	58	113	525	836	333	194	125	36	1	2228
13. Cannanore	0	0	10	226	119	990	710	472	203	238	107	0	3075
14. Kasaragod	0	0	0	114	63	1232	779	711	279	294	76	0	3548

APPENDIX 4.2

District-wise Area Production and Productivity of Principal Crops in Kerala 1988-89—Area (in Ha.) Production (in Tonnes) Productivity (Kg./Ha.)

Crops	Trivandrum			Quilon			Pathanamthitta			
	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)	
1. Pulses		2394	461	192	1345	1238	920	303	235	775
2. Sugarcane		19	100	52630	202	1066	52770	1789	12999	72330
3. Pepper		3916	804	205	8221	1935	235	6318	2160	342
4. Ginger		176	715	4062	871	2443	2804	478	1247	2609
5. Cardamom		164	5	30.48	637	1	1.57	279	1	3.58
6. Coconut (in Mill Nuts)		87287	421	4823(nuts/ha.)	80510	900	3726	31845	141	4427
7. Cashewnut		4033	2969	736	7926	8339	1052	2568	2850	1109
8. Banana		668	5577	8348	1182	16234	13734	1318	19411	14727
9. Tapioca		95495	608739	17.14(T/Ha)	39983	638728	15.97(T/ha.)	10359	244213	23.57
10. Groundnut		8	2	250						
11. Sesamum		18	5	278	1862	469	252	187	52	278
12. Turmeric		28	18	643	66	113	1712	19	69	3632
13. Betel Nuts (Mill Nuts)		2005	268	137	2123	379	179	1590	346	218
14. Other plantation		4586	26489	5776	3036	16382	5396	1953	10988	5626

Crops	Alleppey			Kottayam			Idukki		
	Area (Ha.)	Production (Tonnes)	Productivity (Kg./ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./ha.)
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1. Pulses	600	519	865	2036	1728	849	1037	858	827
2. Sugarcane	1000	5275	52750	272	1389	51070	1306	8150	62400
3. Pepper	1576	409	260	10135	752	74	32794	13689	417
4. Ginger	171	549	3211	2570	6367	2477	2786	8340	2994
5. Cardamom	..	..	..	26	..	..	49894	1595	31.96
6. Coconut (Mill nuts)	58200	248	4261	44881	150	3342	18726	71	3792
7. Cashewnut	6257	2373	379	678	211	311	964	457	474
8. Banana	495	6664	13462	1584	25806	16670	321	6597	20551
9. Tapioca (T/ha.)	10370	164623	15.87	12935	2161934	20.25	5221	133527	25.57
10. Groundnut	10	2	200	..	..	..	..	..	..
11. Sesamum	3424	753	220	57	14	246	170	22	129
12. Turmeric	21	39	1857	603	1739	2884	253	640	2530
13. Betel nuts (Million Nuts)	1762	216	123	1528	249	163	2189	349	159
14. Other Plantation	1956	8521	4356	3279	17005	5186	2317	14808	6391

Crops	Ernakulam			Trichur			Palghat		
	Area (ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)
	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
1. Pulses	1726	1236	716	2420	1728	714	8186	6488	787
2. Sugarcane	39	201	51540	5	26	52000	3786	26696	70510
3. Pepper	8778	893	102	5447	585	107	4558	714	160
4. Ginger	2767	9317	3367	185	301	1627	436	995	2282
5. Cardamom	..	..	..	..	..	..	3307	217	65.62
6. Coconut (Mill nuts)	75709	432	5706	75005	402	5359	35452	110	3102
7. Cashewnut	2019	1319	653	6040	3396	562	9327	3947	423
8. Banana	2990	33742	14118	1702	20160	11845	1843	27033	14668
9. Tapioca (T/ha.)	6419	125331	19.52	3652	50580	13.84	10092	187711	18.59
10. Groundnut	..	..	..	..	..	..	10615	4740	447
11. Sesamum	2121	367	173	1150	268	233	923	402	436
12. Turmeric	713	824	1155	157	264	1682	243	455	1872
13. Betel nut (Mill nuts)	3975	879	221	6255	1254	200	2713	261	95
14. Other Plantation	3485	17132	4916	3629	9670	2665	2954	8904	3041

Crops	Malappuram			Kozhikode			Wayanad		
	Area (Ha)	Production (Tonnes)	Productivity (Kg/Ha)	Area (Ha)	Production (Tonnes)	Productivity (Kg/Ha)	Area (Ha)	Production (Tonnes)	Productivity (Kg/Ha)
(1)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)
1. Pulses	1276	957	742	1107	542	766	392	299	762
2. Sugar cane	7	37	5280	3	16	3333	13	70	53850
3. Pepper	9632	1558	142	14550	900	61	19052	9028	473
4. Ginger	313	597	1907	1406	2603	1425	2805	9598	3422
5. Cardamom	188	1	5.32	194	2	10.03	3928	251	64
6. Coconut (in Mill nuts)	95723	379	3959	121780	611	5017	5285	6	1135
7. Cashew nut	14180	6059	427	4887	3255	666	776	289	372
8. Banana	3285	30424	11697	944	11335	12028	993	9689	9737
9. Tapiocca (T/Ha.)	11255	153912	13.67	3012	39834	13.22	1530	40507	26.47
10. Ground nut	8	1	125	..	..	..	..	..	..
11. Sesamum	2875	503	175	55	13	236	162	46	284
12. Turmeric	76	126	1658	271	319	1177	271	810	2989
13. Betel Nuts (in mill nuts)	11193	1540	13.7	5336	887	166	1775	360	203
14. Other plantation	2821	12247	4341	2492	7176	2880	1281	5087	3971

Crops	Cannanore			Kasaragod			Kerala State		
	Area (Ha.)	Production (Tonne)	Productivity (Kg/Ha)	Area (Ha.)	Production (Tonne)	Productivity (Kg/Ha.)	Area (Ha.)	Production (Tonne)	Productivity (Kg/Ha)
(1)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
1. Pulses	3005	2344	780	1054	322	779	26881	19705	733
2. Sugar cane	23	121	52610	12	63	52500	8476	56149	66240
3. Pepper	33163	7805	235	6518	1281	196	164558	42513	238
4. Ginger	766	2053	2907	445	1320	2966	16115	45845	2845
5. Cardamom	760	35	46	..	..	..	59377	2108	35.50
6. Coconut (in mill nuts)	88224	376	4261	478840	194	4055	866467	3841	4432
7. Cashew nut	33172	39810	1200	26777	23604	882	119604	98878	826
8. Banana	1423	19133	13445	700	8510	12157	18848	24833	13176
9. Tapiocca	5959	109050	18.30	2469	43269	17.52	158751	28019583	17.65
10. Ground nut	3	1	333	18	3	167	10662	4749	445
11. Sesamum	127	49	386	64	15	234	13195	2978	226
12. Turmeric	271	573	2114	169	185	1095	3161	6174	1933
13. Betel nut (Mill nuts)	9881	1775	180	10512	2126	201	62940	10891	173
14. Other plantation	2750	9147	3326	1745	6312	3640	35284	169088	4440

Crops	Alleppey			Kottayam			Idukki		
	Area (Ha.)	Production (Tonnes)	Productivity (Kg./ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./ha.)
(1)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1. Pulses	600	519	865	2036	1728	849	1037	858	827
2. Sugarcane	1000	5275	52750	272	1389	51070	1306	8150	62400
3. Pepper	1576	409	260	10135	752	74	32794	13689	417
4. Ginger	171	549	3211	2570	6367	2477	2786	8340	2994
5. Cardamom	..	..	..	26	..	..	49894	1595	31.96
6. Coconut (Mill nuts)	58200	248	4261	44881	150	3342	18726	71	3792
7. Cashewnut	6257	2373	379	678	211	311	964	457	474
8. Banana	495	6664	13462	1584	25806	16670	321	6597	20551
9. Tapioca (T/ha.)	10370	164623	15.87	12935	2161934	20.25	5221	133527	25.57
10. Groundnut	10	2	200	..	..	..	..	..	..
11. Sesamum	3424	753	220	57	14	246	170	22	129
12. Turmeric	21	39	1857	603	1739	2884	253	640	2530
13. Betel nuts (Million Nuts)	1762	216	123	1528	249	163	2189	349	159
14. Other Plantation	1956	8521	4356	3279	17005	5186	2317	14808	6391

Crops	Ernakulam			Trichur			Palghat		
	Area (ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)	Area (Ha.)	Production (Tonnes)	Productivity (Kg./Ha.)
(1)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
1. Pulses	1726	1236	716	2420	1728	714	8186	6488	787
2. Sugarcane	39	201	51540	5	26	52000	3786	26696	70510
3. Pepper	8778	893	102	5447	585	107	4558	714	160
4. Ginger	2767	9317	3367	185	301	1627	436	995	2282
5. Cardamom	..	..	..	..	..	..	3307	217	65.62
6. Coconut (Mill. nuts)	75709	432	5706	75005	402	5359	35452	110	3102
7. Cashewnut	2019	1319	653	6040	3396	562	9327	3947	423
8. Banana	2390	33742	14118	1702	20160	11845	1843	27033	14668
9. Tapioca. (T/Ha.)	6419	125331	19.52	3652	50580	13.84	10092	187711	18.59
10. Groundnut	..	..	..	..	..	..	10615	4740	447
11. Sesamum	2121	367	173	1150	268	233	923	402	436
12. Turmeric	713	824	1155	157	264	1682	243	455	1872
13. Betel nut (Mill nuts)	3975	879	221	6255	1254	200	2713	261	95
14. Other Plantation	3485	17132	4916	3629	9670	2665	2954	8904	3041

Crops	Malappuram			Kozhikode			Wayanad		
	Area (Ha)	Production (Tonnes)	Productivity (Kg/Ha)	Area (Ha)	Production (Tonnes)	Productivity (Kg/Ha)	Area (Ha)	Production (Tonnes)	Productivity (Kg/Ha)
	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)
1. Pulses	1276	957	742	107	62	576	392	299	762
2. Sugar cane	7	37	5280	5	16	3250	19	70	53850
3. Pepper	9632	1558	142	14550	960	61	19052	9028	473
4. Ginger	313	597	1907	1406	2603	1425	2807	9598	3422
5. Cardamom	188	1	5.32	194	2	10.03	3928	251	64
6. Coconut (in Mill nuts)	95723	379	3959	121780	611	5017	5285	6	1135
7. Cashew nut	14180	6059	427	4887	3255	666	776	289	372
8. Banana	3285	38424	11697	944	11335	12028	993	9689	9757
9. Tapioca (T/Ha.)	11255	153912	13.67	3012	39834	13.22	1530	40507	26.47
10. Ground nut	8	1	125	..	..	..	..	..	..
11. Sesamum	2875	509	175	55	13	236	162	46	284
12. Turmeric	76	126	1658	271	319	1177	271	810	2989
13. Betel Nuts (in mill nuts)	11193	1540	13.7	5336	887	166	1775	360	203
14. Other plantation	2821	12247	4341	2492	7176	2880	1281	5087	3971

Crops	Cannanore			Kasaragod			Kerala State		
	Area (Ha.)	Production (Tonne)	Productivity (Kg/Ha)	Area (Ha.)	Production (Tonne)	Productivity (Kg/Ha.)	Area (Ha.)	Production (Tonne)	Productivity (Kg/Ha)
	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
1. Pulses	3005	2344	780	1054	822	779	26881	19705	733
2. Sugar cane	23	121	52610	12	63	52500	8476	56149	66240
3. Pepper	33163	7805	235	6518	1281	196	164558	42513	258
4. Ginger	706	2053	2907	445	1320	2966	16115	45845	2845
5. Cardamom	760	35	46	..	..	..	59377	2108	35.50
6. Coconut (in mill nuts)	88224	376	4261	478840	194	4055	866467	3941	4332
7. Cashew nut	33172	39810	1200	26777	23604	882	119604	98878	826
8. Banana	1423	19133	13445	700	8510	12157	18848	24835	513176
9. Tapioca	5959	109050	18.30	2469	43269	17.52	158751	28019588	17.65
10. Ground nut	3	1	333	18	3	167	10662	4749	445
11. Sesamum	127	49	386	64	15	234	13195	2978	226
12. Turmeric	271	573	2114	169	185	1095	3161	6174	1953
13. Betel nut (Mill nuts)	9884	1775	180	10612	2128	201	62940	10891	173
14. Other plantation	2750	9147	3326	1745	6312	3640	35284	169988	4440

APPENDIX 4.3
Consumption of Fertilizers in Kerala

(in Tonnes)

Year	Nutrients			Total	Percentage change
	Nitrogen	Phosphorus	Potash		
(1)	(2)	(3)	(4)	(5)	(6)
1981-82	40612	23215	30934	94761	
1982-83	45233	26555	38365	109853	+15.9
1983-84	62460	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
1988-89	30233	50884	82805	213927	+17.0

APPENDIX 4.4

Average price of Important agricultural inputs

Input	Unit	1987-88	1988-89
(1)	(2)	(3)	(4)
I. Fertilizers			
(a) Nitrogen			
(i) Urea	Rs./Kg.	2.35	2.35
(ii) Ammonium sulphate	"	1.65	1.65
(b) Phosphorus			
(i) Super phosphate	"	0.95	0.95
(c) Potash			
(i) Muriate of Potash	"	1.30	1.30
II. Seeds and other planting Materials			
(a) Paddy seeds	Rs./Qtl.	150.00	300.00
(b) Green manure seeds			
(i) Sunhemp	"	435.00	500.00
(c) Coconut seedlings			
(i) WCT	Rs./seedlings	6.75	8.50
(ii) T x D	"	10.50	13.00
(iii) D x T	"	10.50	13.00
(d) Rooted pepper cuttings			
(i) Panniyoor I	"	0.50	0.50
(ii) Other varieties	"	0.50	0.50
(e) Cashew			
(i) Layer	Rs./layer	2.00	2.00
(ii) Seedlings	Rs./Seedlings	1.50	1.50
(f) Nutmeg seedlings			
(i) One year old	Rs./seedlings	3.00	3.00
(ii) Two year old	"	5.00	5.00

Appendix 4.5

Selected Indicators of the Credit Operations of the Primary Agricultural Credit Societies

Indicators (1)	As on 30-6-1987 (2)	As on 30-6-1988 (3)	As on 30-6-1989 (4)
1. No. of Societies	1570	1574	1580
2. No. of Members (Lakhs)	68.18	72.91	78.08
(a) of which SC	6.3	6.9	7.4
(b) of which ST	0.4	0.5	7.5
3. Paid upshare Capital (Rs. lakhs)	1658	6333	6898
4. Reserves (Rs. lakhs)	3574	4962	5478
5. Deposits (Rs. lakhs)	45474	55930	64703
6. Working Capital (Rs. lakhs)	79692	96366	107810
7. Loans issued (Rs. lakhs)			
Short term	49626	57668	61492
Medium term	9120	11025	11716
Long term	1060	1680	1909
8. Loan outstanding	61190	72089	81432
9. Short term loans issued for agricultural purposes alone	23891	25378	26629
10. S. T. loans for non agricultural purposes	25735	32290	34863
11. M. T. loans for agricultural purpose	4240	5625	4414
12. M. T. loans for non-agricultural purpose	4880	5400	7302
13. Value of agricultural produce marketed through societies	2539	3346	4373
14. Value of Fertilizers sold	3752	4430	4124
15. No. of dormant societies	31	32	25
16. No. of societies on Profit	807	782	777
17. No. of Societies without profit or loss.	95	41	30
18. No. of Societies on Loss.	728	751	773
19. No. of Societies having paid secretaries	1534	1540	1540
20. No. of societies having godowns			
(a) Owned	1407	1419	1426
(b) Hired	497	590	551

Appendix 4.6

Selected Indicators of the Performance of Agricultural Credit Societies

Sl. No.	Indicators (1)	As on 30-6-1987 (2)	As on 30-6-1988 (3)	As on 30-6-1989 (4)
1.	Average Membership per Society (No.)	4343	4632	4942
2.	Average Share Capital per Society (Rs. lakhs)	3.58	4.02	4.37
3.	Average Deposit per Society (Rs. lakhs)	28.96	35.53	40.95
4.	Average Deposit per Member (Rs.)	667	767	829
5.	Average Working Capital per Society (Rs. lakhs)	50.76	61.22	68.23
6.	Average Loan per Member (Rs.)	877	965	962
7.	Percentage of Borrowing Members to total Members (borrowed during the year)	37.64	42.46	38.15
8.	Average Loan Advanced per Advancing Society (Rs. lakhs)	40.46	47.78	51.03
9.	Average Loan Advanced per Borrowing Member (Rs)	2331	2273	2521
10.	Percentage of Overdue to Outstanding	17.82	18.54	20.13
11.	Percentage of Overdue to Demand	17.90	18.35	19.95

APPENDIX 4.7

Ordinary Loaning Programme of the Kerala State Co-operative Agricultural Development Bank During the Last 3 Financial Years

(Rs. in lakhs)

Sl.No.	Purpose	1986-87	1987-88	1988-89
	(1)	(2)	(3)	(4)
1.	New Wells	18.02	19.32	2.66
2.	New Tanks	1.45	..	..
3.	Pumpssets and Persion wheels	10.46	7.08	2.31
4.	Agricultural Machinery	27.95	4.50	9.56
5.	Repairs to Wells & Tanks	3.68	1.98	1.29
6.	Field channels and Pump houses	0.27	..	..
7.	Cattle sheds and Farm houses	364.44	465.36	343.35
8.	Fencing	327.31	275.84	232.92
9.	Levelling and Bunding	365.51	408.03	280.40
10.	Terracing	76.68	53.26	75.21
11.	Drainage channels	3.05	2.00	5.98
12.	Plantations	104.43	99.72	94.40
13.	Other major programmes	48.28	41.77	31.38
	Total	1351.53	1378.86	1079.46

APPENDIX 4.8

Scheme-Loans Advanced by Kerala State Co-operative Agricultural Development Bank at Fin. by L.C.C. during the last Three Financial Years

(Rs. in lakhs)

Sl.No.	Schemes	1986-87	1987-88	1988-89
	(1)	(2)	(3)	(4)
1.	Minor Irrigation	436.58	559.80	509.93
2.	Agricultural Machinery	173.30	204.87	155.93
3.	Plantation	807.07	1064.54	1137.92
4.	Dairy	36.31	69.41	119.84
5.	Poultry	41.49	52.78	79.80
6.	Fisheries	21.15	19.13	40.65
7.	Goat Development	3.94	4.35	11.65
8.	Coconut & Fish Culture	26.10	15.11	2.46
9.	Gobar gas/Biogas	2.39	1.27	2.58
10.	Bullock and Bullock cart	5.06	9.48	1.13
11.	Marshy land reclamation/interspace filling	32.45	78.05	79.02
12.	SADU	307.63	60.51	13.29
13.	Others	22.28	60.94	55.76
	Total	1917.84	2240.29	2209.96

APPENDIX 4.9

Statement of Releases made by NCDC in Kerala during 1988-89

Sl. No.	Particulars	Amount
(1)	(2)	(3)
		(Rs. in lakhs)
1.	Margin Money assistance to Apex Federations:	
	(a) Campco	30.00
	(b) Marketing Federation	60.00
	(c) Rubber Mark	30.00
	(d) Raidco	10.00
	(e) Coirfed	50.00
	Total	180.00
2.	Share capital assistance to Primary Marketing Societies including Rubber Marketing Societies	64.00
3.	Integrated Co-operative Development projects	83.438
4.	Processing units set up by Plantation Crops co-operatives	42.748
5.	Margin money to Cannanore Cooperative Spinning Mills	34.000
6.	Co-operative Storage:—	
	(a) Normal ongoing scheme	33.477
	(b) NCDC-III Project	14.790
7.	Handloom co-operatives	26.255
8.	Fishery Co-operatives	16.456
9.	Scheduled Caste Co-operatives	13.525
10.	Coir Co-operatives	6.746
11.	Rural Consumer Scheme	4.840
12.	Fruits & Vegetables	1.290
13.	Coconut Development Project (Kerafed)	949.650
	Grand Total	1371.214

APPENDIX 4.10

Performance of procurement and input wing of KCMMF for 1989 (Union wise)

Sl. No.	District	Regional Union	No. of APCOS regd.	No. of APCOS functioned
	(1)	(2)	(3)	(4)
1.	Trivandrum	Trivandrum Regional Milk Producers Union	512	510
2.	Quilon			
3.	Pathanamthitta			
4.	Alleppey			
5.	Kottayam			
6.	Ernakulam	Ernakulam Regional Co-operative Milk Producers Union	374	351
7.	Idukki			
8.	Trichur			
9.	Palghat			
10.	Malappuram	Proposed Malabar Regional Milk Producers Union	181	102
11.	Kozhikode			
12.	Wayanad			
13.	Cannanoor			
14.	Kasaragod			

APPENDIX 4.11

Performance of the Dairies for 1988 and 1989

Sl. No.	Dairy	Processing capacity (lpd)	Procurement				Sales					
			Total	Total	Daily Average (lpd)		Daily Average (lpd)		Total	Total	1988	1989
			1988	1989	1988	1989	1988	1989				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			
1.	Trivandrum	40,000	14658393	15351177	40050	42058	22507648	24891213	61496	68195		
2.	Quilon	60,000	14350571	17035346	39209	46672	6741895	8293233	18420	22721		
3.	Alleppy	60,000	5091675	6829217	13912	18710	5160722	6316678	14100	17306		
4.	Kottayam	6,000	2993884	2880758	8180	7892	4302933	5325931	11757	14592		
5.	Ernakulam	1,00,000	21988569	21424000	60078	58696	19214543	22390444	52499	61179		
6.	Trichur	60,000	9688610	10749567	26471	29451	4580973	5513241	12516	15105		
7.	Palghat	6,000	5217025	6839676	14254	18739	4988918	5799588	13631	15889		
8.	Cannanore	10,000	3406597	5219026	9308	14299	7847439	8712313	21441	23869		
	Total	3,42,000	77395324	86328767	211463	236517	75345071	87182641	205861	238857		

Collection thro' APCOS & Traditional Societies.

APPENDIX 4.12

Achievement of Kerala Co-operative Milk Marketing Federation Ltd., for the Years 1985 to 1989.

Sl.No.	Particulars	1985	1986	1987	1988	1989
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	No. of APCOS regd. (Cum)	471	569	692	988	1067
2.	„ functional (cum)	448	549	676	813	963
3.	No. of members in APCOS (Cum)	84858	103891	131515	162229	206893
4.	No. of women members in APCOS (cum)	9737	11065	12937	15439	20864
5.	No. of SC/ST. members in APCOS (cum)	6163	8181	8912	10450	13743
6.	No. of OBC members in APCOS (cum)	14460	15632	18401	24538	25039
7.	Average milk procured per day (lts)	121788	123788	174992	211463	236517
8.	Average milk marketed per day (lts)	118035	135928	174905	205861	238857
9.	Average quality of milk procured					
	Fat	4.6	4.6	4.5	4.3	4.4
	SNF	8.4	8.2	8.3	8.4	8.3
10.	Average price paid to SOC/lt.	3.12	3.34	3.81	3.77	4.12
11.	Average price paid to prod/lt.	3.10	3.24	3.69	3.65	4.00
12.	Mobile regular vety routes	11	11	12	15	19
13.	No. of cases treated by regular routes (Yrly)	72373	124794	126511	184167	156206
14.	No. of emergency vety. routes	7	5	7	8	11
15.	No. of cases treated (Yrly)	3539	6344	10683	18349	18871
16.	Direct employment generated (cum)	1118	1368	1720	1845	2243
17.	Cattle Feed Prdn (MT)	15919	22677	23904	32621	33840
18.	„ Sales (MT)	11673	22829	23951	32194	34173
19.	Qty. of ghee sold (kg.)	397725	434684	446820	635659	829017
20.	Qty. of 50 gm., cups, Icecream, sold (nos)	748488	931267	1207069	1298689	1504465
21.	Qty. of 180cc. Bottle, SFM sold (nos.)	940002	900064	992572	645161	854017
22.	Qty. of Butter sold (kg.)	50275	68263	82923	59297	80204

SFM—Sterilised Flavoured Milk

APPENDIX 4.13

District-wise Distribution of Fishermen Population in Kerala (1988-89) (Estimated)

Sl.No.	District	Marine				Inland				Total
		Male	Female	Children	Total	Male	Female	Children	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1.	Trivandrum	45695	44198	63242	153135	335	341	433	1109	154244
2.	Quilon	27313	25171	33475	85959	9952	9141	12372	31465	117424
3.	Alleppey	31661	30963	39817	102441	18862	17883	20379	57124	159565
4.	Pathanamthitta	..	..	..	..	255	242	275	772	772
5.	Kottayam	..	..	..	..	7575	7235	8036	22846	22846
6.	Idukki	..	..	..	..	..	..	..	..	..
7.	Ernakulam	21406	20937	24180	66523	20344	19523	19528	59395	125918
9.	Trichur	19573	19947	24415	63935	6051	5836	6335	18222	82157
9.	Palghat	..	..	..	..	114	132	243	489	489
10.	Malappuram	21461	22000	25783	69244	1244	1231	1433	3908	73152
11.	Wayanad	..	..	..	..	275	263	388	876	876
12.	Calicut	28340	27496	34968	90804	3449	3290	4275	11014	101818
13.	Cannanore	15377	14969	17886	48232	313	274	227	814	49046
14.	Kasaragod	12686	12340	14748	39774	259	226	187	672	40446
	State	223512	218021	278514	720047	69028	65617	74061	208706	928753

APPENDIX 4.14

Species-wise Composition of Marine Fish Landings in Kerala 1985-88

(Qty. in tonnes)

Sl.No.	Species	Kerala			
		1985	1986	1987	1988
(1)	(2)	(3)	(4)	(5)	
1.	Elasmobranchs	7966	6057	6538	8115
2.	Catfish	1815	5084	7494	9287
3.	Chirocentrus	5045	2237	916	889
4.	(a) Oil Sardine	106321	145259	121184	139835
	(b) Other Sardine	31645	24245	12948	24832
5.	Anchoviella	19349	9500	10481	19984
6.	Thrissocles and other clupeoids	4121	8049	4082	2783
7.	Perches	5506	6577	7677	12406
8.	Redmulletts	11621	6329	2830	14180
9.	Sciaenids	3990	4601	5695	3253
10.	Ribbon Fishes	3251	3536	4767	722
11.	Carangids	1870	1852	2647	8056
12.	Leiognathus	1536	3642	4255	3158
13.	Lactaritus	931	1194	890	2377
14.	Pomfrets	988	1892	1906	1379
15.	Mackerel	24157	17294	18329	24106
16.	Seerfish	2808	3005	3368	4053
17.	Tunnies	6206	7042	5836	13921
18.	Soles	3366	5080	4905	3028
19.	(a) Prawn	35882	29817	23030	32186
	(b) Lobster & Crustaceans	852	1606	1912	1226
20.	Cephalopods	3102	3997	2985	3460
21.	Miscellaneous	55361	37981	23888	25547
	Total	332683	335876	278563	358783

APPENDIX 4.15

Species-wise Inland Fish Production in Kerala 1986-87, 1987-88 & 1988-89

(Quantity in Tonnes)

Species	1986-87		1987-88		1988-89		Variation			
	Actual	percentage	Actual	percentage	Actual	percentage	Actual	Percentage		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
1. Prawns	5896	20.91	5822	21.62	6658	23.37	836	(+)	14	
2. Etroplus	2825	10.02	2786	10.34	2980	10.47	194	(+)	7	
3. Murrels	2847	10.10	2742	10.18	2439	8.57	(-)	303	(-)	11
4. Tilapia	4936	17.51	4732	17.57	4982	17.50	250	(+)	5	
5. Catfish	2943	10.44	2864	10.63	2943	10.34	79	(+)	3	
6. Jew Fish	1730	6.13	1698	6.31	1496	5.25	(-)	202	(-)	12
7. Others	7017	24.89	6288	23.35	6977	24.50	689	(+)	11	
Total	28194	100.00	26932	100.00	28475	100.00				

APPENDIX 4.16

Export of Marine Products from Kerala/India

Year	Kerala		India	
	Quantity (in Tonnes)	Value (Rs. in lahs)	Quantity (in Tonnes)	Value (Rs. in lakhs)
(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	92694	37302
1984-85	31570	14814	86187	38429
1985-86	29580	13808	83651	39800
1986-87	33906	16457	85843	46067
1987-88	35576	18394	97179	53120
1988-89	45614*	22131	99777	59785

* Products from Karnataka also exported through Cochin Port as Mangalore Port was not accepting Frozen cargo.

APPENDIX 4.17

Average Beach price of Selected Marine Fishes in Kerala

Sl. No.	Species	Average Beach Price (Rs. kg.)		
		1986-87	1987-88	1988-89
(1)	(1)	(2)	(3)	(4)
1.	Elasmobranchs	3.60	4.40	5.90
2.	Catfish	3.35	3.70	5.50
3.	Chirocentrus	3.40	4.20	4.95
4.	(a) Oil Sardine	1.85	2.25	3.00
	(b) Other Sardines	2.10	2.45	3.25
5.	Sciaenids	3.00	3.10	3.25
6.	Carangids	4.95	5.00	5.25
7.	Leiognathus	2.15	2.60	3.20
8.	Lactaritus	4.50	5.20	6.20
9.	Pomfrets	8.00	9.60	11.00
10.	Mackerel	4.00	5.20	6.50
11.	Seerfish	9.30	12.00	13.50
12.	Tunnies	5.60	6.20	7.00
13.	Soles	1.95	2.40	3.25
14.	Cephalopods	5.80	5.80	6.00
15.	Prawn	20.00	21.40	28.00
16.	Miscellaneous	2.45	2.85	3.00

APPENDIX 4.18

Details of Physical and Financial Achievements under the Integrated Fisheries Development Projects Phase I & II

(Rs. in lakhs)

Sl. No.	Particulars	Phase I		Phase II			
		Achievement during 1989 as on 31-12-1989.		Total Achievement upto 1989.		Total Achievement upto 1989.	
		Physical	Financial	Physical	Financial	Physical	Financial
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
A. Inputs							
1.	Crafts (Nos)	60	22.30	300	73.82	166	67.404
2.	Out Board Motors (Nos)	152	33.76	516	92.33	202	57.02
3.	Webbings (Kg)	15235	20.19	51742	88.63	62699	124.00
		13 units of Trammel net		30 units of trammel net		30 units of Trammel net	
4.	Accessories		10.24	..	20.867	..	37.296
5.	Additional Loan		9.5	..	19.097	..	2.627
6.	Cycles	..	..	..	..	..	..
7.	Autorikshaws	..	..	..	..	..	..
8.	Vanitha Bus	..	..	..	..	..	..
	Sub Total-Inputs (Financial)		95.99		294.75		288.35
B. Infrastructural Facilities							
1.	Auction and Processing Halls and Service Complex	..	..	..	..	..	..
2.	Ice and cold storage plants	..	..	..	..	..	..
3.	Insulated Vehicles	..	..	3	5.60	..	..
4.	Transport Vehicles	..	..	3	2.860	..	..
5.	Service Facilities	..	..	1	2.380	..	..
6.	Extension capital/services	..	7.250	..	53.91	..	2.407
7.	Operational/Management Expenditure	..	..	..	..	..	23.246
8.	Pre-operative expenses	..	..	..	30.00	..	9.460
9.	Working Capital	..	0.75	..	1.60	..	2.200
10.	Physical and Price Contingencies	..	..	..	..	..	..
11.	Training	..	0.070	..	1.670	..	2.540
	Sub Total (B) Financial	..	8.07	..	98.020	..	39.853
	Total (A+B)	..	104.06	..	392.35	..	328.203

C. Total No. of groups benefited.

Phase I 587
Phase II 241

APPENDIX 4.19

Details of Fishermen Co-operatives in Kerala (1988-89)

Particulars	Total no. of Societies	Total no. of Member Ship	Paid up Share capital
(1)	(2)	(3)	(4)
1. Regional Fish Marketing Societies	3	N.A.	N.A.
2. Credit Societies	39		
3. Matsya Utpadaka Co-operative Societies	8		
4. Fishermen Development Welfare Co-operative Societies			
(a) Marine	81	50492	N.A.
(b) Inland	..	..	..
5. District Societies	5	25	2500
6. Matsyafed	1	5	5000
7. Harijan/Girijan Fishermen Co-operative Societies	38	950	9500

Source: Directorate of Fisheries

APPENDIX 4.20

Details of Selected Physical and Financial Achievement of Kerala Fishermen Welfare Fund Board since its inception

(Rs. in lakhs)

Sl. No.	Name of Welfare Scheme	1986-87		1987-88		1988-89	
		No. of beneficiaries	Amount	No. of beneficiaries	Amount	No. of beneficiaries	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Group Insurance Scheme	52	7.28	104	15.07	98	14.40
2	Old age pension	3391	2.54	16112 (cumulative)	39.96	18294 (cumulative)	81.94
3	Compensation to the dependants of fishermen who die while fishing/death cases	3	0.45	21	2.65	68	7.69
4	Assistance for the marriage of daughters of fishermen	133	1.544 (0.27)	328 (334)	3.94* (0.67)	1 (1)	0.01 (0.002)
5	Financial Assistance for the death of dependants	44	0.11	220	0.55	250	0.63
6	Financial Assistance for funeral expenses	..	..	1	0.003	30	0.07
7	Financial assistance for temporary disability	114	-0.07	100	0.08	382	0.88
8	Hut Insurance	..	..	410	0.02	832	0.035
	Renewal of Policy	..	..	..	..	196	0.008

* Represent Loan portion and the figures in bracket represent ex-gratia payment.

Source: Kerala Fishermen Welfare Fund Board.

APPENDIX—4.21

Details of Fisheries Works under Harbour Engineering Department

Sl. No.	Name of Project	Total Estimated Cost		Year of Starting	Year of Completion/ Targeted	Expenditure upto December 1989	Remarks
		Original	Revised				
		(2)	(3)				
	(1)			(4)	(5)	(6)	(7)
(Rs. in lakhs)							
A.	1 Vizhinjam Fishing Harbour Ist stage	173.00	208.00	1962	1980	..	100 Completed
	II & III Stages	539.20	704.00	1980	1990	684.00	Due to rehabilitation the work could not be progressed as targeted.
	2 Neendakara Fishing Harbour	370.00	585.00	1980	1988	656.00	Almost completed
	3 Thankassery Fishing Harbour	1411.00	..	1989	1993	0.31	Work just commenced
	4 Munambam Fishing Harbour	710.00	..	1989	1993	0.23	do.
	5 Puthiappa	527.00	..	1988	1992	55.50	Work in Progress
B. Landing Centres for Mechanised Boats							
	1 New Mahe	28.43	..	1988	1989	33.25	Nearing Completion
	2 Thottappally	25.47	..	1984	1989	26.98	"
	3 Palacode	15.00	..	1986	..	3.12	Stay on L.A. is vacated & L.A. is being pursued.
	4 Cheruvathoor	18.43	..	1982	1989	21.39	Work in Progress
	5 Dharmadam	20.95	..	1986	1989	22.38	Work completed
	6 South Paroor	24.94	not commenced			7.09	Work deferred in view of the development of Thankassery Fishing Harbour
	7 Chettuvali	19.50	"			0.02	Delay on L.A.
C. Fish Landing Centres for Traditional Fishermen							
	1 Vizhinjam North	18.70	..	1986	..	5.33	Work could not be progress due to local resistance.
	2 Vizhinjam South	19.10	..	1988	1990	7.13	Works in Progress
	3 Vallikkunnu	17.90	..	1985	1989	18.76	Work completed
	4 Vellayil Beach	22.00	..	1988	1990	24.88	Work Completed.
	5 Chalil Gopalpetta	25.00	..	not commenced		0.03	Due to the delay in L.A. the work could not be commenced.
	6 Quilon Fort	22.00	..	..	..	..	Work deferred due to the development of Thankassery Fishing harbour
D. Brackish Water Fish Farms							
	1 Poyya	23.62	81.00	1984	1989	74.59	70% of work completed
	2 Njarakkal-Malippuram	19.60	60.00	1984	1989	53.87	95% of work completed
	3 Ayiramthengu	6.37	13.00	1984	1988	28.78	86% of work completed
	4 Palaikari	21.98	..	1984	1988	21.83	Work completed
E. National Seed Farms							
	1 Malampuzha	39.00	..	1982	1989	59.44	Work completed
	2 Polachira	39.00	..	1982	1989	34.09	Completed.

APPENDIX-4.22

Division-wise Area of Forests in Kerala

Division	Area in Hectares as on 31-3-1989			Total
	Reserve Forests	Proposed for Reserve Forests	Vested Forests	
(1)	(2)	(3)	(4)	(5)
A. General Divisions				
1. Trivandrum	38375.90	774.63	397.50	39548.03
2. Thennala	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
6. Kottayam	65548.60	525.70	3140.90	69215.20
7. Munnar	66275.02	4725.60	631.20	71631.82
8. Kothamangalam	31686.50	..	14.13	31700.63
9. Malayattoor	61724.11	52.48	5.60	61782.19
10. Vazhachal	41394.38	..	..	41394.38
11. Chalakkudy	35470.98	..	..	35470.98
12. Trichur	33101.81	..	634.30	33736.11
13. Nenmara	20993.10	..	..	20993.10
14. Palghat	28227.79	111.63	..	28339.42
15. Nilambur North	5791.96	1.71	33672.50	39421.17
16. Nilambur South	26751.10	..	9881.62	36632.72
17. Kozhikode	6759.78	8613.88	..	15373.66
18. Wayanad	36277.16	1506.44	..	37783.60
Sub Total (A)	710206.23	18130.87	49614.75	777951.85
B. Special Division				
1. Tellicherry	..	..	16132.31	16132.31
2. Palghat	..	..	75187.63	75187.63
3. Kozhikode	..	358.95	46080.89	46439.84
4. Nilambur	..	..	..	..
Sub-Total (B)	..	358.95	137400.83	137759.78
(C) Wild Life Division				
1. Trivandrum	27682.00	..	450.00	28132.00
2. Idukki	28252.68	..	..	28252.68
3. Thekkady	77700.00	54.38	..	77754.38
4. Parambikulam	27414.08	..	..	27414.08
5. Wayanad	34686.41	..	1782.50	36468.91
6. Silentvalley	8951.65	..	..	8951.65
Sub Total (C)	204686.82	54.38	2232.50	206973.70
Total (A+B+C)	914893.05	18544.20	189248.08	1122685.33

Source: C. C. F. Development Wing.

APPENDIX 4.23

Species-wise Area under Forest Plantations

Name of species (1)	Area in Hectares			Percentage to total 31-3-1989 (5)
	As on 31-3-1987 (2)	As on 31-3-1988 (3)	As on 31-3-1989 (4)	
1. Teak	79415.8	78383.4	78798.8	51.13
2. Eucalyptus	34727.9	33986.5	32094.8	20.83
3. Softwood	23101.3	10695.3	5907.0	3.83
4. Mixed plantations	5955.3	17832.3	23479.8	15.24
5. Cashew	4657.9	4151.1	4138.2	2.68
6. Bamboo	3010.4	279.8	444.2	0.29
7. Wattle	3005.9	3084.9	3183.1	2.06
8. Hardwood	1162.1	588.3	718.3	0.47
9. Fuel wood	1072.0	1448.0	384.9	0.25
10. Pepper	543.1	507.7	507.7	0.33
11. Pine	449.2	449.2	449.2	0.29
12. Mahagony	173.1	80.1	89.3	0.06
13. Rosewood	158.5	182.8	192.8	0.13
14. Balsa	117.0	81.4	76.5	0.05
15. Cardamom	26.5	..	..	..
16. Sandalwood	14.7	13.9	13.9	0.01
17. Kongu	14.0	14.0	..	..
18. Zylonicum	3.5	..	3.5	..
19. Others	2763.3	3352.4	3619.3	2.35
Total	160371.5	155337.1	154101.3	100

APPENDIX 4.24

Production of Major Forest Produce

Item (1)	Unit (2)	Period		Actual increase or Decrease over the year (5)
		1987-88 (3)	1988-89 (4)	
1. Timber (Round Log)	'000 Cum	51.115	19.633	(-) 31.482
2. Timber (Round Poles)	'000 Nos.	940	515	(-) 425
3. Timber (Swan & Squard)	Cum	32.131	39.590	(+) 7.459
4. Firewood	'000 tonnes	25.438	19.174	(-) 6.264
5. Charcoal	Tonnes	18.515	8.750	(-) 9.765
6. Cardamom	Kg.	10152	..	(-) 10152
7. Honey	Tonnes	15.622	27.459	(+) 11.837
8. Reeds	Lakh Nos.	1100	347	(-) 753
9. Bamboo	'000 Nos.	4225	374	(-) 3851
10. Jungle wood poles	Nos.	1172	517	(-) 655
11. Sandalwood	Tonnes	122.540	34.176	(-) 88.364

Source: C. C. F. Development Wing.

37/1086/MC.

APPENDIX 4.25

Forest Revenue in Kerala

Item (1)	Sales proceeds (Rs. in lakhs)		Increase or Decrease	
	1987-88 (2)	1988-89 (3)	Actual (Rs. lakhs) (4)	Percentage (5)
A. Revenue from Forests				
1. Timber	3356.93	2738.33	(-) 618.60	(-) 18.43
2. Firewood & Charcoal	98.23	72.15	(-) 26.08	(-) 26.55
3. Livestock	..	..	..	..
4. Others	365.05	384.97	(+) 19.92	(+) 5.46
Sub Total (A)	3820.21	3195.45	(-) 624.76	(-) 16.35
B. Other Receipts	189.31	183.54	(-) 5.77	(-) 3.05
C. Total (A+B)	4009.52	3378.99	(-) 630.53	(-) 15.73
D. Refunds	9.79	4.56	(-) 5.23	(-) 53.42
E. Net Revenue (C-D)	3999.70	3374.43	(-) 625.30	(-) 15.63

APPENDIX 4.26

Performance of Kerala Social Forestry Project during 1988-89

Item (1)	Unit (2)	Target (3)	1988-89 Achievement (4)	Percentage of Achievement (5)
1. Farm Forestry—Distribution of Seedlings	Lakh Nos.	750.00	870.70	116
2. Block Plantations on Government Land				
(a) Large Block	Ha.	2600.00	2870.61	110
(b) Small Block	"	250.00	580.42	232
3. Strip Plantations	"	500.00	124.60	25
4. Tribal Fuelwood Plantations	"	500.00	..	..
5. Tribal Medicinal Plantations	"	25.00	90.00	360
6. Seedlings Production (Governmental)	Lakh (Nos.)	184.00	155.50	85

APPENDIX 4.27

Physical and Financial Achievements under Social Forestry (1988-89)

(Rs. lakhs)

Particulars	Physical Achievement		Financial Achievement
	Unit	Achievement	Expenditure
(1)	(2)	(3)	(4)
<i>Social Forestry</i>			
<i>A. World Bank Assisted</i>			
1. Block Plantations in Government lands			
(a) Large Blocks	Ha.	2871.61	702.15
(b) Small Blocks	"	580.42	
2. Strip Plantations	"	124.60	
3. Tribal Fuelwood Plantation	"	..	
4. Tribal Medicinal	"	90.00	
5. Farm Forestry Distribution of Seedlings	Lakhs	870.70	
6. Seedlings Production	"	155.50	
7. Rural Fuelwood Scheme (50% Centrally Sponsored)	Ha.	..	48.67
<i>C. N. R. E. P. (Rural Development Fund)</i>			
1. Compact Planting	Ha.	761.95	251.57
2. Belt Plantation	Kms.	140.00	
3. Seedlings distributed under Farm forestry	Lakhs	182.52	
<i>D. R. L. E. G. P.—I (100% Centrally Sponsored)</i>			
1. Plantation in belt submergible area	Ha.	336.72	63.04
2. Farm Forestry	Lakhs	20.41	
<i>E. RLEGP—II (100% Centrally Sponsored)</i>			
1. Construction cairns	Nos.	..	..
2. Stone Wall	Nos.	..	—
3. Belt Plantation	Ha.	63.22	22.45
4. Fire Line Path	Kms.	..	
5. Nursery for Planting	Bds.	524.00	
6. Farm Forestry Nursery	"	200.00	
7. Camping facilities	Nos.	..	

APPENDIX 4.28

Statement showing Selected Physical Achievements (civil works) under Kerala Social Forestry Project (as on 1989 March)

Name of the works	Year of commencement Target	Year of completion Achievement	If not completed per centage of works completed
(1)	(2)	(3)	(4)
A. Office Buildings			
1. Headquarters and Circle Headquarters	3	2	67
2. Division Offices	14	4	29
3. Range Offices	47	17	36
4. Others	326	59	18
B. Quarters			
1. Chief Conservator of Forests and Conservator of Forests	3	3	100
2. Assistant Conservator of Forests	17	10	59
3. Range Officers	54	23	43
4. Others	122	96	79
C. Roads (K.MS)	..	..	..
D. Vehicles (Nos.)	279	217	78
E. Others (Specify)	..	..	..

Source: C.C.F. Social Forestry Wing.

APPENDIX 4.29

Details of Physical Achievements under Selected Programmes of Wildlife Sanctuaries & National Parks—1989.

Name of sanctuary/ National Park	Boun- dary survey (Km.)	Cairns erected (Nos)	Roads & Paths (Km)	Const- ruction of wall (Km)	Watch towers (Nos.)	Wireless station (Nos.)	Fire Protec- tion lines (Km.)	Power fencing (Km.)	Check dam (Nos.)	Buildings/Affore- quarters/station sheds (Nos.)	area (Ha)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Parambikulam	4.9	..	2	9	346	..	..	25	..
2. Chimmony	75	..	..	..	..
3. Waynad	3.0	..	2	1	158	20	..	51	..
4. Aralam	1	89	..	..	..	..
5. Periyar Tiger Reserve	6.9	..	4	9	116	..	..	27	..
6. Neyyar	..	110	..	..	..	1	88	10	..	18	..
7. Peppara	..	Nil	..	..	..	2	71	..	..	3	..
8. Shendurney	45	70	..	..	..	..	..	..	..	15	..
9. Idukki	..	Nil	53 Km.	..	..	1	..	..	..	7	17
10. Eravikulam National Park	..	Nil	31	..	..	..	12	..	..	..	..
11. Chinnar Sanctuary	..	277	22	..	..	..	49	..	..	..	..
12. Thattekkad Bird Sanctuary	..	Nil	6	..	..	..	..	..	..	..	..
13. Silent Valley	1	109	..	..	9	..
14. Peechi-Vazhani Sanctuary	79	..	..	1	..

Source: C.C.F., Wildlife wing.

APPENDIX 4.30

Student Statistics of Kerala Agricultural University for the Year 1987-88 & 1988-89

Programme	1987-88		1988-89	
	Admission	Successful completion	Admission	Successful completion
(1)	(2)	(3)	(4)	(5)
<i>Degree Programme</i>				
B.Sc. (Ag.)	142	110	160	127
B. F. Sc.	19	23	24	22
B.Sc. (C & B)	30	30	Nil	7
B. Tech. (Ag. Engg.)	21	Nil	36	Nil
B.V.Sc. & A. H.	120	66	126	62
<i>Diploma Course</i>				
B.A.Sc.	Nil	47	Nil	53
D.A.R.E.	Nil	12	Nil	14
Dairying	Nil	18	20	2
<i>P. G. Degree Courses*</i>				
M.Sc. (Ag.)	41	49	29	34
M.S. (Ag. Stat.)	Nil	3	4	Nil
M.Sc. (Ag. Engg.)	8	1	4	2
M.Sc. (Hort.)	11	8	12	8
M.Sc. (Forestry)	2	Nil	2	2
M.Sc. (C & B)	2	Nil	4	2
M.V.Sc.	3	1	8	10
M.Sc. (F&N)	5	4	2	Nil
M.F.Sc.	9	Nil	6	3
<i>Ph. D. Programme</i>				
Ph. D. (Ag.)	Nil	Nil	7	4
Ph. D. (Hort.)	Nil	Nil	4	Nil
Ph. D. (Vety. B.Sc.)	Nil	3	1	2
Ph. D. (Home Science)	Nil	Nil	2	Nil
P. G. Diploma	Nil	Nil	Nil	Nil

*1986 Admissions conducted in 1987-88

APPENDIX 5.1

Major and Medium Irrigation Projects in Kerala

Sl. No.	Name of Scheme year of starting year of completion	Original Estimated Cost (Rs. in lakhs)	Latest Estimated Cost (Rs. in lakhs)	Total Ex- penditure up to 3/89 (Rs. lakhs)	Expected area to be irrigated (Ha.)		Cumulative Achievement till the end of 6/89 (Ha.)		Percentage increase over the Original Estimate
					Net	Gross	Net	Gross	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>A. Completed Schemes</i>									
1.	Chalakydy (1949-66)	183	188.25	188.25	26680	39380	19530	27258	..
2.	Peech (1947-59)	235	235.00	235.00	17555	28080	15262	23718	..
3.	Malampuzha (1949-66)	388	580.00	580.00	29463	42090	19802	40208	19.5
4.	Neyyar I (1951-73)	248	461.00	461.00	16042	17952	8300	16716	85.9
5.	Pothundy (1958-71)	234	234.25	234.25	8792	10930	4685	10046	..
6.	Gayathri (1956-70)	220	220.00	220.00	7651	10930	4880	10114	..
7.	Walayar (1953-64)	92	131.66	131.66	4536	6170	3752	6503	43.1
8.	Vazhani (1951-62)	108	107.57	107.57	3565	7130	2113	4226	..
9.	Mangalam (1953-66)	45	106.00	106.00	4816	6880	3313	6608	135
10.	Cheerakuzhy (1957-73)	91	90.76	90.76	2268	2828	952	1746	..
<i>B. Ongoing Schemes</i>									
11.	Kallada (1961-)	1328	31349	26923.36	61630	92800	10620	15921	2260
12.	Pampa (1964-)	383	6341	5365.64	21135	49456	20718	48480	1555
13.	Muvattupuzha (1976-)	2086	6859	3120.59	13616	52200	..	..	229
14.	Periyar Valley (1956-)	348	6304	5757.58	32800	85600	29725	77584	1711
15.	Chimoni-Mupli (1975-)	633	3022	1898.91	13000	26200	..	..	377
16.	Chitturpuzha (1961-)	106	2080	1799.39	15700	29202	13901	25856	1862
17.	Kanhirapuzha (1961-)	365	5978	4366.94	9713	21853	6883	15487	1537
18.	Kuttiady (1962-)	496	5500	5056.86	14570	35850	14108	34710	1008
19.	Pazhassi (1964-)	442	7736	6049.37	11525	23050	7821	15642	1653
20.	Vamanapuram (1981-)	1982	3640	295.48	8803	18014	..	..	83
21.	Idamalayar (1981-)	1785	7121	2181.74	14394	43199	..	..	298
22.	Kuriarkutty- Karappara (1978-)	1036	4881	145.42	11736	23472	..	..	371
23.	Chaliyar (Beyyorepuzha) (1981-)	37800	37800	75.10	73235	108035	..	..	..
24.	Kakkadavu (1979-)	1335	5100	186.85	13986	41760	..	..	282
25.	Attappady (1975-)	476	5000	673.34	4500	8378	..	..	950
26.	Karapuzha (1975-)	760	4066	1179.96	4650	9300	..	..	435
27.	Meenachil (1980-)	3300	4956	85.20	9960	14510	..	..	50
28.	Banasurasagar (1979-)	800	1798	142.71	2800	4800	..	..	124
Total		57310	151885.49	67658.93	464121	860340	180365	380823	..

APPENDIX 5.2

Major and Medium Irrigation Projects Achievement during 1988-89

Sl. No.	Name of Scheme	Command Area (Ha.)		Physical achievement during 1988-89 Ha.		Cumulative Achievement up to the end of 1988-89 (Ha.)		Expenditure during 1988-89 (Rs. in lakhs)
		Net	Gross	Net	Gross	Net	Gross	
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Ongoing Schemes</i>								
1.	Kallada	61630	92800	620	930	10620	15921	3150.36
2.	Pampa	21135	49456	..	..	20718	48480	92.64
3.	Muvattupuzha	18616	39046	..	..	..	..	362.59
4.	Periyar Valley	32800	85600	..	..	29725	77584	387.58
5.	Chimoni-Mupli	13000	26000	..	..	..	..	315.91
6.	Chitturpuzha	15700	29202	..	..	13901	25856	59.99
7.	Kanhirapuzha	9713	21853	..	..	6883	15487	196.94
8.	Kuttiadi	14570	35850	..	..	14108	34710	79.86
9.	Pazhassi	11525	23050	355	710	7821	15642	236.37
10.	Vamanapuram	8803	18014	..	..	..	..	58.48
11.	Idamalayar	14394	43790	..	..	..	..	110.74
12.	Kuriarkutty-Karappara	11736	23472	..	..	..	..	28.42
13.	Chaliyar (Beyporepuzha)	73235	108035	..	..	..	..	11.10
14.	Kakkadavu	13986	41760	..	..	..	..	9.85
15.	Attapady	4500	8378	..	..	..	..	45.34
16.	Karapuzha	4650	9300	..	..	..	..	151.96
17.	Meenachil	9960	14510	..	..	..	..	12.50
18.	Banasurasagar	2800	4800	..	..	..	..	13.71
	Total	342753	674316	975	1640	103776	233680	5323.74

APPENDIX 5.3

Physical and Financial Achievement under Minor Irrigation Programme

Sl. No.	Item	Cumulative achievement till the end of 1987-88		Actual Expenditure during 1988-89 (Rs. in lakhs)	Achievement during 1988-89 (Ha.)		Cumulative area brought under irrigation through M.I. Scheme till the end of 1988-89 (Ha.)	
		Net (Ha.)	Gross (Ha.)		Net	Gross	Net	Gross
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Minor Irrigation, Class I	33000	49652	171.67	1623	2435	34623	52087
2.	Minor Irrigation Class II P.W.D.	84412	84412	143.21	1367	1367	85779	85779
3.	Lift Irrigation	39742	59616	191.04	1830	2745	41572	62361
4.	I.P.D. Yelah Programme	19166	19166	44.85	430	430	19596	19596
5.	Repairs and damages to M.I. Structure and others	5502	5502	376.71	4764	4764	10266	10266
	Total	181822	218348	926.88	10014	11741	191836	230089

APPENDIX 5.4

No. of Minor Irrigation works Proposed and Completed during 1988-89

Item	No. of works pending completion	No. of works proposed during the year	No. of works completed
(1)	(2)	(3)	(4)
1. Minor Irrigation Class I	79	120	41
2. Minor Irrigation Class II P.W.D.	74	126	52
3. Lift Irrigation	61	110	49
4. I.P.D. Yelah schemes	11	30	19
5. Repairs to M. I. structures and others	394	509	45

APPENDIX 5.5

Physical and Financial Achievement under Flood Control and Antisea Erosion Programme during 1988-89

Item	Achievement during 1988-89	Amount spent (Rs. in lakhs)
Flood Control	Protected 1740 ha. from the ravages of flood	136.796
Antisea erosion	Constructed 3.8 Km. new seawall Reformed 4.10 Km. old damaged sea wall to standard size.	401.08

APPENDIX 5.6

Power Projects and Power Generation as on 31-3-1989

Name of Project	Installed capacity (MW)	Energy Potential (Mkwh)	Units generated during 1988-89 (Mkwh)
(1)	(2)	(3)	(4)
1. Pallivasal	37.5	284	223.8781
2. Sengulam	48.0	182	133.1690
3. Neriamangalam	45.0	237	253.3104
4. Panniar	30.0	148	99.514
5. Poringalakuthu	32.0	170	222.4557
6. Sabarigiri	309.0	1393	1078.470
7. Sholayar	54.0	233	271.9554
8. Kuttiady	75.0	248	290.4907
9. Idukki	780	2015	1691.0800
10. Idamalayar	75	360	285.8960
Total	1478.5	5270	4550.2193

APPENDIX 5.7

Growth of Kerala Power system at a Glance

Particulars	Position as on	
	31-3-1988	31-3-1989
(1)	(2)	(3)
1. Installed capacity—MW	1476.5	1476.5
2. Maximum demand—MW		
(a) System	1075.6	1151.2
(b) Internal	1116.8	1000.2
3. Generation per annum—MU	4093	4550
4. Import per annum—MU	1035.94	1264.71
5. Export per annum—MU	17.4	10.38
6. Energy sales per annum—MU	3623.6	4387
7. Energy losses as percentage of energy available for sale	28.33	26.15
8. Per capita consumption—KWH	125.75	148.11
9. 220 KV lines—CT. km.	887	..
10. 110 KV lines—CT km.	2151.5	..
11. 66 KV lines—CT km.	2527	..
12. 11 KV lines—CT km.	17953	18853
13. LT lines—CT km.	85570	89072
14. Step up transformer capacity	1726	1726
15. No. of the E.H.T. sub stations	120	127
16. Step down transformer capacity—MVA	4255	..
17. Distribution transformer		
(a) Numbers	14598	15177
(b) Capacity—KVA	1679	1746
18. No. of villages electrified	1268	1268
19. No. of consumers (in lakhs)	27.7	29.34
20. Connected load—MW	3568	3757.57
21. No. of street lights	476009	483020
22. No. of irrigation pumps	170993	186475
23. Total revenue per annum (Rs. in lakhs)	19978	24828

APPENDIX 5.8

Details of Ongoing Hydro-Electric Power Generation Projects in Kerala—1989

Sl.No.	Name of Project	Year of starting	Original estimated (Rs.lakhs)	Latest estimated cost & year (Rs.lakhs)	Energy-potential (MU)	Expenditure upto 3/89 (Rs. lakhs)	Expected year of commissioning
(1)		(2)	(3)	(4)	(5)	(6)	(7)
1.	Idukki Stage-III	1975	410	1511 (1988)	376	1446	3/1990
2.	Azhutha diversion	1987	300	370 (1988)	57	55.06	10/1991
3.	Sabarigiri Augmentation	1976	128	1122 (1988)	125	963.00	6/1993
4.	Kakkad	1976	1860	7012 (1988)	262	3676.00	9/1992
5.	Kallada	1981	1180	1389 (1986)	53	785.00	12/1990
6.	Lower Periyar	1983	8843	14000 (1988)	493	5122.00	9/1992
7.	Madupetty Small H.E.	1987	..	332 (1988)	6.4	23.00	3/1991
8.	Malampuzha Small H.E.	1987	..	345 (1988)	5.6	10.00	12/1990
9.	Malankara Small H.E.	1987	780	997 (1988)	36	14.00	1992-'93
10.	Chimony Small H.E.	1987	..	360 (1988)	6.5	28.00	1991-'92
11.	Peppara Small H.E.	1987	..	567 (1988)	11.5	4.00	1991-'92
12.	Pooyankutty Stage -I	1986	..	25000 (1985)	645	112.00	1992-'93
13.	Kuttiar diversion	1988	..	214 (1988)	37	0.05	1992-'93
14.	Vadakepuzha diversion	1989	..	191 (1989)	12	..	1991-'92
15.	Vazhikkadavu diversion	1989	..	185 (1989)	24	..	1992-'93
16.	Peringalkuthu L.B. extension	1989	..	902 (1989)	38	..	1992-'93
17.	Kuttiady tailrace	1989	..	397 (1989)	15	..	1992-'93

APPENDIX 5.9

Pattern of Power Consumption and Revenue Collected during 1988-89

Sl.No.	Category	No. of consumers as on 31-3-1989 (Nos.)	Connected load as on 31-3-1989 (MW)	Energy (MU)	Consumption as percentage to total	Revenue collected (Rs.lakhs)	Revenue as % to total
(1)		(2)	(3)	(4)	(5)	(6)	(7)
1.	Domestic lights heat and small power	2229532	1617.52	1254	28.58	5626.44	22.66
2.	Commercial lights, fans, heat and power	463426	373.18	446	10.17	4142.55	16.69
3.	Industrial (Low and Medium Voltage)	57833	595.93	288	6.56	2030.79	8.18
4.	Industrial (High and Extra High Voltage)	603	621.94	1889	43.06	10850.06	43.70
5.	Irrigation	182858	447.70	186	4.24	385.06	1.55
6.	Public lighting	1398	27.57	82	1.87	747.88	3.00
7.	Water works and sewerage pumping	954	50.34	116	2.65	366.63	1.48
8.	Bulk supply to licencies	5	23.40	126	2.87	678.80	2.74
	Total	2936669	3757.58	4387	100	24828.23	100

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
1987-88	175.19

Sources: 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	1987-88
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	General Index	100.00	183.57	200.60	170.95	175.19
20-21.	Manufacture of Food Products	18.15	165.07	148.03	176.94	183.90
23.	Manufacture of Cotton Textiles	6.46	137.90	122.98	103.69	113.21
24.	Manufacture of Wool, Silk and Synthetic Fibre Textiles.	4.14	57.93	123.96	43.99	27.77
25.	Manufacture of Textile Products	1.57	105.80	90.81	80.07	50.01
27.	Manufacture of Wood and Wood Products, Furniture and Fixtures	4.08	176.31	100.56	114.94	121.93
28.	Manufacture of Paper and Paper Products and Printing, Publishing and Allied Industries.	12.54	68.33	69.40	53.17	71.11
30.	Manufacture of Rubber, Plastic, Petroleum and Coal Products.	7.00	107.69	206.06	239.07	257.46
31.	Manufacturing of Chemical and Chemical products (Except Petroleum and Coal products)	16.50	294.82	388.25	243.97	262.36
32.	Manufacture of Non-metallic Mineral products.	3.82	270.50	182.67	181.07	205.45
33.	Manufacture of Basis Metals and Alloys products	3.33	213.10	176.96	100.34	146.99
34.	Manufacture of Metal Products and parts except Machinery and Transport Equipment	0.69	235.55	282.56	355.14	220.91
35.	Manufacture of Machinery, Machine tools parts except Electrical Machinery	0.16	84.82	64.29	55.36	363.89
36.	Manufacture of Electrical Machinery, Apparatus, Appliance and Supplies and Parts	2.07	126.77	111.91	111.94	112.12
37.	Manufacture of Transport Equipment and Parts	0.39	8.36	30.37	213.84	160.53
38.	Other Manufacturing Industries	0.54	49.40	43.29	77.95	71.89
40.	Electricity	18.56	250.91	275.11	238.52	210.25

Sources: Directorate of Economics and Statistics.

APPENDIX 6.3

District-wise Distribution of Working Factories and Employment for the year ending 31-12-1987
(Excluding defence factories)

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
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. Oil	12	192	17	129	3	16	37	375	9	44	13	53	40	343	99	502
2. Tea	5	112	3	97	..	..	..	..	8	88	70	4152	1	61	1	137
3. Cashew	19	7664	226	89377	3	4180	3	1294	..	..	..	..	2	469	5	2606
4. Cotton Textiles	14	1463	9	2051	4	39	3	778	3	537	..	..	16	1986	19	3564
5. Coir	2	31	7	176	..	..	179	2420	3	64	1	9	29	329	5	29
6. Plywood, Splints & Veneers	23	323	59	1427	1	8	27	452	36	913	11	122	56	1070	33	450
7. Saw Mill	71	325	108	516	28	97	64	241	111	576	10	39	283	1722	191	956
8. Printing & Publishing	62	2184	39	241	41	152	48	246	115	1210	22	105	161	2147	97	1091
9. Rubber & Rubber Products	48	1499	46	392	64	523	33	397	328	3708	47	364	104	1763	115	2057
10. Chemical & Chemical Products	14	932	15	1208	..	..	32	666	26	862	1	8	77	8060	34	740
11. Matches	9	78	20	287	1	8	14	118	7	82	2	28	8	116	29	405
12. Soap	1	7	3	43	..	..	3	24	3	24	..	..	9	1261	3	64
13. Tiles	3	153	52	1733	2	12	4	139	20	196	..	..	39	723	170	4194
14. General Engineering	75	2194	110	2281	21	171	88	2177	103	747	34	257	449	10867	253	2324
15. Automobiles	41	3086	25	505	23	120	94	844	73	906	19	111	125	1586	83	745
16. Others	102	2037	250	3764	36	828	189	2594	183	4392	31	474	557	11265	381	6151
Total	501	22220	984	104227	227	6154	758	12705	1028	14349	261	5722	1956	43768	1518	26015

Source: Department of Economics & Statistics

A: Number of Factories

B: Employment.

APPENDIX 6.3 (Contd.)

District-wise Distribution of Working Factories and Employment for the year ending 31-12-1987

(Excluding defence factories)

Name of Industry	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	349	24	111	2	17			322	2287
2. Tea	3	207							19	879			110	5733
3. Cashew					2	501	4	976					264	107067
4. Cotton Textiles	17	1591	6	882	51	2157	392	8245			1	57	535	23350
5. Coir			11	107	29	468	12	128			1	9	279	3770
6. Plywood, Splints & Veneers	95	1406	33	450	98	1041	56	1987					528	9649
7. Saw Mill	197	755	178	856	185	1343	147	1121	12	66	1	12	1581	8625
8. Printing & Publishing	48	522	28	165	86	1439	69	413	9	38			825	9953
9. Rubber & Rubber Products	50	314	68	526	84	520	90	363	4	46			1081	12472
10. Chemical & Chemical Products	37	596	16	927	35	568	25	270	2	11			314	14868
11. Matches	26	324	9	83	23	167	8	84					156	1780
12. Soap	2	12	4	31	13	676	1	20					42	2162
13. Tiles	11	491	11	556	34	3199	10	778	1	27			957	12201
14. General Engineering	244	3916	56	691	205	2100	159	1462	7	33			1804	29160
15. Automobiles	53	304	41	498	144	1541	111	674	10	35			782	10955
16. Others	461	4259	130	863	415	5991	253	2939	11	210	3	42	3002	43749
Total	1259	14819	599	5669	1447	22060	1361	19571	77	1362	6	120	11982	299761

Source: Department of Economics & Statistics

A:—Number of Factories

B:—Employment

APPENDIX C.4

District-wise Distribution of Working Factories and Employment for the year ending 31-12-1988 (Provisional) (Excluding defence factories)

Name of Industry	Trivandrum		Quilon		Pattanamthitta		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	13	192	18	130	3	17	37	375	9	51	13	53	40	343	99	502
2. Tea	5	113	3	97	..	..	..	..	8	88	70	4152	1	61	1	198
3. Cashew	25	9503	227	91165	3	4180	3	1294	..	..	..	..	3	469	6	3284
4. Cotton Textiles	14	1463	9	2051	4	39	3	778	3	550	..	..	16	1986	21	3564
5. Coir	2	31	7	176	..	..	179	2420	3	64	1	9	29	329	7	40
6. Plywood, Splints & Veneers	23	399	39	1427	2	8	28	461	38	913	14	148	64	1124	33	450
7. Saw Mill	87	371	115	573	44	142	64	241	111	576	10	40	283	1722	201	1056
8. Printing & Publishing	68	2446	39	241	50	152	48	246	117	1415	26	106	163	2147	103	1134
9. Rubber & Rubber Products	55	1919	48	392	76	675	33	397	338	3930	52	400	104	1763	128	2283
10. Chemical & Chemical Products	14	932	17	1208	..	..	33	686	29	1009	1	8	84	8060	43	784
11. Matches	1	78	21	304	1	8	14	118	7	82	2	28	8	116	29	477
12. Soap	1	9	3	47	..	..	3	24	3	24	..	..	9	1324	3	64
13. Tiles	4	204	53	1733	2	12	4	139	20	206	..	..	39	723	180	4320
14. General Engineering	75	2177	117	2395	22	226	8	2264	103	747	35	257	458	10976	268	2417
15. Automobiles	43	3086	27	505	33	163	35	844	73	933	19	111	130	1586	83	745
16. Others	113	2037	278	3764	50	903	201	2686	187	5226	39	559	385	11265	411	6520
Total	551	24900	1041	106208	290	6525	693	12373	1049	15814	282	5871	2016	43994	1616	27338

A: Number of Factories

B: Employment

Source: Department of Economics & Statistics.

APPENDIX-6.4 (Contd.)

District-wise Distribution of Working Factories and Employment for the Year ending 31-12-1988 (Provisional) (Excluding defunct factories)

Name of Industry	Palghat		Malappuram		Kozhikode		Cannanore		Wayanad		Kasaragod		Total	
	A (18)	B (19)	A (20)	B (21)	A (22)	B (23)	A (24)	B (25)	A (26)	B (27)	A (28)	B (29)	A (30)	B (31)
1. Oil	16	151	8	94	43	349	24	111	2	17	..	..	325	2925
2. Tea	3	282	..	..	..	..	..	..	19	992	..	..	110	9679
3. Cashew	..	..	..	..	2	501	5	976	..	..	..	..	274	111972
4. Cotton Textiles	17	1591	7	882	51	2200	392	8245	..	..	1	57	538	29406
5. Coir	..	..	11	107	29	468	12	128	..	..	1	9	281	3987
6. Plywood, Splints & Venecra	95	1406	37	509	98	1041	60	2027	..	..	..	..	551	9653
7. Saw Mill	197	755	201	865	189	1943	147	1121	16	81	1	12	1666	8898
8. Printing & Publishing	48	598	28	201	88	1482	73	421	10	47	..	..	861	10576
9. Rubber & Rubber Products	51	355	77	568	94	556	90	370	7	46	..	..	1153	15654
10. Chemical & Chemical Products	39	638	19	955	37	579	25	275	2	11	..	..	343	15145
11. Matches	27	324	9	83	27	179	8	84	..	..	..	..	162	1881
12. Soap	3	17	4	31	13	677	1	20	..	..	..	..	43	2297
13. Tiles	11	491	13	623	35	3191	10	778	1	27	..	..	372	12455
14. General Engineering	254	4346	62	732	219	2100	172	1477	8	49	..	..	1801	36163
15. Automobiles	53	304	43	498	151	1541	117	681	12	40	..	..	819	11037
16. Others	462	4302	143	863	444	6111	256	3262	12	214	3	44	3184	47756
Total	1276	15450	662	6951	1520	23226	1392	19976	89	1464	6	122	12483	310412

A: Number of Factories

B: Employment

Source: Department of Economics & Statistics

APPENDIX 6.5

Capital Invested and Employment in respect of Government Owned Companies in Kerala

Name of Company	Capital Invested (Rs. in lakhs)		Employment (Nos)	
	As on 31-3-1988	As on 31-3-1989	As on 31-3-1988	As on 31-3-1989
(1)	(2)	(3)	(4)	(5)
1. Kerala Ceramics Limited	1322.17	1322.17*	576	576*
2. Kerala Soaps and Oils Limited	1046.52	1134.00	649	640
3. Travancore Plywood Industries Limited	230.68	309.58	610	599
4. Kerala State Drugs and Pharmaceuticals Limited	1430.40	1875.43	501	584
5. Kerala State Detergents and Chemicals Limited	757.04	757.04*	249	249*
6. Kerala Electrical and Allied Engineering Company Limited	662.67	1324.75	971	966
7. Steel Industrials Kerala Limited	1608.93	1712.91	292	378
8. Autokast Limited	2700.72	2700.72*	413	413*
9. Steel and Industrial Forgings Limited	785.28	1126.00	151	156
10. Kerala Minerals and Metals Limited	13414.92	13550.06	1145	1124
11. Malabar Cements Limited	6351.63	6411.74	793	1051
12. Sitaram Textiles Limited	1116.84	1267.84	738	694
13. Trivandrum Spinning Mills Limited	446.50	438.38	530	519
14. Kerala Agro Machinery Corporation Limited	250.53	161.46	347	367
15. Scooters Kerala Limited	280.66	242.86	85	96
16. Kerala Automobiles Limited	881.27	881.27*	306	306*
17. Kerala Premopipe Factory Limited	161.21	173.53	284	280
18. Kerala Clays and Ceramic Products Limited	6.27	34.90	393	403
19. Kerala State Wood Industries Limited	697.90	731.56	173	175
Total	34152.14	36156.23	9206	9576

* retained last year's figure

APPENDIX B.B

Performance of Government-Owned Companies in respect of Value of Production and Sales Turn over 1987-88 and 1988-89

(Rs. in lakhs)

Name of Company (1)	Value of Production		Sales Turnover	
	1987-88 (2)	1988-89 (3)	1987-88 (4)	1988-89 (5)
<i>KSIE Group</i>				
1. Kerala Ceramics Limited	60.00	233.00	61.00	200.00
2. Kerala Soaps and Oils Limited	480.00	607.88	438.00	627.55
3. Kerala Electrical and Allied Engineering Company Limited	1037.00	1967.35	1094.00	1931.22
4. Kerala State Drugs and Pharmaceuticals Limited	772.00	1111.00	1135.00	824.75
5. Kerala State Detergents and Chemicals Limited	18.00	54.00	15.00	55.00
6. Travancore Plywood Industries Limited	291.67	313.06	285.99	391.96
<i>Chemicals</i>				
7. Kerala Minerals and Metals Limited	3237.19	5525.69	3126.01	5501.14
8. Malabar Cements Limited	3574.28	4399.94	4868.15	4627.71
<i>Iron and Steel</i>				
9. Steel Industries Kerala Limited	709.84	528.48	772.00	926.71
10. Steel and Industrial Forgings Limited	247.96	379.83	187.38	367.54
<i>Textiles</i>				
11. Sitaram Textiles Limited	109.40	395.41	124.91	241.30
12. Trivandrum Spinning Mills Limited	259.82	354.34	249.84	346.39
<i>Engineering</i>				
13. Kerala Agro Machinery Corporation Limited	671.84	929.08	931.39	1140.39
14. Scooters Kerala Limited	25.38	74.00	22.77	65.83
<i>Ceramics and Refractories</i>				
15. Kerala Premopipe Factory Limited	134.67	126.15	132.63	118.77
16. Kerala Clays and Ceramic Products Limited	76.74	73.04	70.45	78.50
<i>Wood based</i>				
17. Kerala State Wood Industries Limited	181.33	128.91	174.14	136.60
Total:	11887.17	17492.16	13650.66	17371.42

APPENDIX 6.7

Installed Capacity and Capacity Utilisation of Government Owned Companies during 1987-88 and 1988-89

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation	
			1987-88	1988-89	1987-88	1988-89	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Kerala Ceramics Ltd.	(i) Kaolin	MT	18000	18000	NA	5944	..	33.02
	(ii) Porcelain	"	595	595	NA	478	..	80.34
	(iii) China clay	"	5000	5000	NA	..	..	..
	(iv) Sanitarywares	"	1200	1200	NA	467	..	38.92
2. Kerala Soaps and Oils Limited	(i) Soaps	MT	9000	9000	2460	3041	27.33	33.79
	(ii) Glycerine	"	260	260	16	28	6.15	10.77
	(iii) Shark Liver Oil Products	"	300	300	19	41	6.33	13.67
	(iv) Vanaspati	"	3000	3000	151	..	5.03	..
3. Kerala Electrical and Allied Engineering Company Limited	(i) Distribution Transformers	KVA	120000	120000	88236	298205	73.53	248.50
	(ii) C.I. Specials	MT	1500	1500	113	330	7.53	22.00
	(iii) Steel Structures	"	1200	1200	324	600	27.00	50.00
	(iv) Galvanised Structures	"	6000	..	723	..	12.05	..
	(v) Brushless Alternators	Nos.	1500	1500	1235	1487	82.33	99.13
	(vi) HRC Fuses	"	..	..	..	..	..	..
	(vii) Electrical Wiring Accessories	"	133000	133000	121204	259158	91.13	194.10
4. Kerala State Drugs and Pharmaceuticals Limited	(i) Vitamin 'A'	MMU	30	30	9.41	7.75	31.37	25.83
	(ii) Tablets	Lakh Nos.	2514	2514	3662	3000	145.66	119.33
	(iii) Granules	Kg.	20000	20000	599	5074	3.00	25.37
	(iv) Powders	Kg.	..	..	460277	381038	..	..
	(v) Liquids	Lakh ltrs.	2.25	2.25	1.91	1.89	84.89	84.00
	(vi) Injectibles							
	(a) Bottles	Lakh Nos.	4.50	4.50	8.11	7.61	180.22	169.11
	(b) Vials	"	15.00	15.00	9.73	10.19	64.87	67.93
(c) Ampoules	"	60.00	60.00	19.18	29.44	31.97	49.07	
5. Kerala State Detergents and Chemicals Limited	Synthetic Detergents							
	(i) Cake/Bar	MT	9000	NA	18	NA	0.20	..
	(ii) Spray Dried Powder	"	18000	NA	..	NA	..	..
	(iii) High Density Powder	"	1800	NA	72	NA	4.00	..
6. Travancore Plywood Industries Limited	Plywood	Lakh Sq. Mtre (4mm basis)	27.38	27.38	6.83	6.99	24.95	25.31
7. Kerala Minerals and Metals Limited	(i) Titanium Dioxide	MT	22000	22000	6860	9250	31.18	42.05
	(ii) Ilmenite	}	29740	29740	14699	14192	49.43	47.72
	(iii) Rutile							
	(iv) Zircon							
	(v) Leucosene Monazite							
8. Malabar Cements Limited	Portland Cement	Lakh Tonnes	4.20	4.20	3.83	3.56	91.19	84.76
9. Steel Industrials Kerala Limited	(i) Fabricated Steel Structural	MT	3000	3000	1298	1399	43.27	53.30
	(ii) Ferrous Scrap	"	10000	10000	5842	2140	58.42	21.40
	(iii) Castings	"	..	1200	..	347	..	28.92

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. Autokast Limited	Heavy Ferrous and Non-ferrous castings	"		18000	1129	11013	..	61.18
11. Steel and Industrial Forgings Limited	Automobile and Industrial Steel forgings	"	4250	4250	1140	1544	26.82	36.33
12. Sitaram Textiles Limited	(i) Cotton Yarn	Lakh Kg.	12064 Spindles	12064 Spindles	3.37	6.12	..	..
	(ii) Cotton Fabrics	Lakh „ Mtrs.	336 Looms	336 Looms	9.52	..	..	..
	(iii) Processing	Meters/day	..	40000	..	15.98 Lakh Mtrs.	..	..
13. Trivandrum Spinning Mills Limited	Cotton Yarn	Lakh Kg.	25200 Spindles and 800 double spindles	25200 Spindles and 800 double spindles	4.86	6.26	..	..
14. Kerala Agro-Machinery Corporation Limited	(i) Power Tillers/ Agricultural Tractors	Nos.	3000	3000	2100	2525	70.00	84.17
	(ii) High Speed Diesel Engine		..	..	..	..	..	..
15. Scooters Kerala Limited	Scooters	Nos.	3600	3600	..	..	..	..
16. Kerala Automobiles Limited	Three Wheelers	Nos.	3000	NA	582	NA	19.40	..
17. Kerala Premopipe Factory Limited	Concrete Cement Pipes	Nos.	..	..	NA	11130	..	..
18. Kerala Clays and Ceramic Products Limited	China Clay	MT.	..	..	11393	11140	..	..
19. Kerala State Wood Industries Limited	(i) Veneers	Lakh Sq.M.	30	30	1.15	0.40	3.83	1.33
	(ii) Joinery Items	Nos.	82500	80000	9460	15767	11.47	19.71
	(iii) Sawn Sizes	Cu. M.	..	..	1321	1266	..	..

APPENDIX 6.8

Capital Invested and Employment in respect of Government Majority Companies in Kerala

(Amount in Rs. lakhs)

Name of Company	Capital Invested		Employment (Nos.)	
	As on 31-3-1988	As on 31-3-1989	As on 31-3-1988	As on 31-3-1989
(1)	(2)	(3)	(4)	(5)
1. Keltron Counters Limited.	544.22	596.76	308	306
2. Keltron Electro Ceramics Limited	315.93	315.93*	100	100*
3. Keltron Crystals Limited.	217.36	313.04	129	124
4. Keltron Magnetics Limited	55.67	60.14	33	33
5. Keltron Power Devices Limited	769.24	833.73	158	156
6. Keltron Resistors Limited.	214.01	247.52	50	50
7. Keltron Rectifiers Limited.	533.76	636.89	116	107
8. Keltron Component Complex Limited	688.38	692.50	360	358
9. SIDKEL Televisions Limited.	36.00	36.00	88	80
10. Steel Complex Limited.	315.62	591.49	657	645
11. Metal Industries Limited.	40.36	62.30	128	132
12. Travancore Titanium Products Limited	176.75	176.75	1441	1429
13. Travancore Cochin Chemicals Limited	1085.00	945.93	1193	1175
14. Travancore Cements Limited.	50.00	50.00	545	590
15. Metropolitan Engineering Co. Limited	112.90	136.34	167	149
16. Traco Cable Company Limited.	1535.58	2534.87	236	240
17. United Electrical Industries Limited	344.37	385.39	527	512
18. Transformers & Electricals Kerala Limited.	3403.74	4393.76	1558	1572
19. Kerala Construction Components Limited.	49.37	49.37*	120	123
20. Chhalakudy Refractories Limited	350.76	386.32	136	133
21. Travancore Sugars & Chemicals Limited	52.26	52.04	608	565
22. Forest Industries (Travancore) Limited.	35.91	52.31	141	131
Total	10927.19	13590.38	8799	8710

* retained last year's figure.

APPENDIX 6.9

Performance of Government Majority Companies in terms of Value of Production and Sales Turnover : 1987-88 and 1988-89

(Amount in Rs. lakhs)

Name of Company	Value of Production		Sales Turnover	
	1987-88	1988-89	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)
<i>Electronics</i>				
1. Keltron Counters Limited	226.98	243.00	256.39	276.00
2. Keltron Electro Ceramics Limited	105.39	141.93	113.76	163.00
3. Keltron Crystals Limited.	99.29	127.27	107.08	148.80
4. Keltron Magnetics Limited.	53.49	45.03	67.62	77.65
5. Keltron Resistors Limited.	29.52	54.37	32.34	60.17
6. Keltron Power Devices Limited.	95.27	242.16	115.98	224.34
7. Keltron Rectifiers Limited.	72.86	95.98	67.15	107.06
8. Keltron Component Complex Limited	730.18	809.55	811.45	1122.29
9. SIDKEL Televisions Limited	185.94	160.12	227.98	201.52
<i>Iron and Steel</i>				
10. Steel Complex Limited	2064.16	2683.20	2087.42	2900.22
11. Metal Industries Limited.	54.00	72.00	64.72	117.26
<i>Chemical</i>				
12. Travancore Titanium Products Limited	3357.89	2140.30	3347.41	3817.49
13. Travancore Cochin Chemicals Limited	1814.40	2321.00	2195.36	2663.37
14. Travancore Cements Limited.	742.56	567.97	739.78	561.89
<i>Electricals and Cables</i>				
15. Metropolitan Engineering Co. Limited	..	103.49	..	99.67
16. United Electrical Industries Limited	216.54	348.42	221.36	343.98
17. Transformers and Electricals Kerala Limited.	2595.00	2935.82	2412.00	2965.08
<i>Ceramics and Refractories</i>				
18. Chalakudy Refractories Limited	3.27	0.10	5.15	1.61
<i>Agrobased Industries</i>				
19. Travancore Sugars and Chemicals Limited	573.86	416.39	576.63	488.66
<i>Wood based Industries</i>				
20. Forest Industries (Travancore) Limited	59.38	107.26	63.88	109.04
Total	13079.98	13615.36	13513.46	16449.10

APPENDIX 6.10

Installed Capacity and Capacity Utilisation of Government Majority Companies in Kerala : 1987-88 and 1988-89

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation (in percentage)	
			1987-88	1988-89	1987-88	1988-89	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Keltron Counters Ltd.	Counting Devices, Registering Mechanism and Electronic Products	Lakh Nos.	Not fixed	Not fixed	2.44	2.66	..	..
2. Keltron Electro-Ceramics Ltd.	(i) Ceramic Capacitors	Million pieces	50	50	40.00	46.50	80.00	93.00
	(ii) Thermistors	"	..	..	0.07	..	..	..
3. Keltron Crystals Limited	(i) Communication Crystals and Watch Crystals	Lakh Nos.	20.84	20.84	16.53	14.99	79.32	71.93
	(ii) Digital Electronic Watches	"	0.45	0.45	0.25	0.32	55.56	71.11
4. Keltron Magnetics Limited	(i) Colour TV Delay lines	"	27.50	27.50	0.15	0.27	0.55	0.98
	(ii) Servo controlled Voltage Stabilizer	Nos.	5000	5000	1487	868	29.74	17.36
5. Keltron Resistors Limited	Carbon and Metal Film Resistors	Million Nos.	142	142	42.11	83.45	29.65	58.77
6. Keltron Power Devices Limited	Power Transistors	Lakh Nos.	10	10	7.82	14.00	78.20	140.00
7. Keltron Rectifiers Limited	(i) Silicon Diodes	"	3.20	3.20	2.03	2.00	63.44	62.50
	(ii) Electronic Equipment	Nos.	50	50	8.00	19.00	16.00	38.00
8. Keltron Component Complex Limited	Aluminium Electrolytic capacitors	Million Nos.	60	60	51.13	53.00	85.22	88.33
9. SIDKEI Televisions Ltd.	Television Sets	Nos.	20000	20000	10011	7075	50.06	35.38
10. Steel Complex Ltd.	Steel Billets	Tonnes	55,000	55,000	37293	45159	67.81	82.11
11. Metal Industries Ltd.	Agricultural Implements	MT	250	250	375	547	150.00	218.80
12. Travancore Titanium Products Limited	Titanium Dioxide	"	24000	24000	11283	10702	47.01	44.59
13. Travancore Cochin Chemicals Ltd.	(i) Caustic Soda	"	52800	52800	30019	33869	56.85	64.14
	(ii) Chlorine products	"	46464	46464	26417	29805	56.85	64.10
14. Travancore Cements Ltd.	(i) White Cement	Tonnes	30,000	30,000	33042	23349	110.14	77.83
	(ii) Cement Paint	"	600	600	927	1038	154.50	173.00
15. Metropolitan Engineering Company Ltd.	Switch and Fuses	Nos.	..	10,000	..	2400	..	24.00
16. Traco Cable Company Limited	(i) A.A.C. and A.C.S.R.	MT	1500	1500	142	410	9.47	27.33
	(ii) PVC Covered Conductors and Bare Copper Conductors	MCM	39.92	39.92	3.50	3.23	8.77	8.0
	(iii) Telephone Cable	CKM	100,000	100,000	31620	..	31.62	..
17. United Electrical Industries Limited	(i) KWH Meters	Nos.	2,50,000	2,50,000	127649	173649	51.06	69.46
	(ii) Motor Control Gears	"	4500	4500	1210	1750	26.89	38.89
	(iii) L.T. Switchgears	"	600	600	12	1	2.00	0.17
	(iv) 11 K.V. Switch gears	"	Not fixed	Not fixed	..	..	..	..
	(v) Plastic Film Capacitors	Million Nos.	15	15	1.63	1.46	10.87	9.73
	(vi) Carbon Film Resistors	"	25	25	0.20	2.23	0.80	8.92
	(vii) Other Products	Nos.	Not fixed	Not fixed	598	938	..	..

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18.	Transformers and Electricals Kerala Limited	(i) Power Transformers	MVA	4500	4500	NA	3020	..	67.11
		(ii) Current and Potential Transformers	Nos.	1000	1000	NA	500	..	50.00
		(iii) Gas Circuit Breakers	"	100	100	NA	13	..	13.00
19.	Kerala Construction Components Limited	Sandlime Bricks	Lakh Nos.	NA	120	NA	51.56	..	42.97
20.	Chalakydy Refractories Limited	Refractory Items	MT	..	To be assessed	NA	24	..	..
21.	Travancore Sugars and Chemicals Limited	(i) Sugar	Tonnes	900 tonnes of cane/day	900 tonnes of cane/day	1728	1619	..	..
		(ii) Spirit	Lakh proof Litres	46.53	46.53	20.29	15.87	43.61	34.11
		(iii) I.M.F.L.	"	..	..	0.37	0.24	..	..
		(iv) Arrack	"	..	..	62.43	57.84	..	..
		(v) Molasses	Tonnes	..	..	1418	957	..	..
22.	Forest Industries (Travancore) Limited	Wooden Furniture and Joinery items	Cu.M.	NA	1500	NA	964	..	64.27

Appendix 6.11

Group-Wise Working Results of State Public Sector Industrial Undertakings in Kerala

(Amount in Rs. lakhs)

Group	Number of Companies Details of which are Available	Paid up Capital		Total Borrowings		Gross Block		Net Profit Earned during 1988-89		Net Loss Incurred during 1988-89		Accumulated loss as on 31-3-1989	
		As on 31-3-1988	As on 31-3-1989	As on 31-3-1988	As on 31-3-1989	As on 31-3-1988	As on 31-3-1989	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) Electronics	10	4753.52	5541.53	9271.22	10119.27	4246.04	4926.23	5	93.07	5	464.57*	8	3082.12
(ii) KSIE Group	4	1366.06	1685.45	2343.97	3314.07	1569.40	1596.56	1	61.29	3	460.03	3	3212.46
(iii) Chemical	5	5307.41	5371.86	16307.80	17486.73	21024.43	21661.31	3	1631.58	2	99.18	3	7775.39
(iv) Textiles	3	1188.04	1292.86	1701.31	2085.16	1616.00	1673.42	..	..	3	444.31	3	2518.35
(v) Electricals and Cables	2	1098.19	1147.61	4684.71	5050.08	1768.89	1789.47	..	..	2	470.26	2	4949.30
(vi) Engineering	7	2906.20	3024.93	3564.04	4564.38	4264.97	4446.42	2	206.81	5	645.41	5	1613.02
(vii) Ceramics and Refractories	3	170.79	170.79	421.10	459.41	175.84	176.01	1	0.86	2	53.73	3	370.43
2. Agro based	1	51.00	51.00	1.26	24.28	156.23	169.77	1	30.83	..	..	..	..
3. Wood based	2	187.7	187.71	667.74	747.66	35.35	436.62	1	0.72	1	36.81	2	480.82
4. Trading Companies	1	11.30	11.30	..	..	3.49	3.49	1	11.34	..	..	..	..
Total	38	17040.32	18485.04	38963.15	43851.04	35260.64	36879.30	15	2096.50	23	2674.30	29	24801.98

* Includes the estimated loss of KSEDG for the first nine months of the financial year.

APPENDIX 6.12

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

(Amount in Rs. Crores)

State/Union Territory (1)	As on 31st March 1987		As on 31st March 1988	
	Value of Property (2)	Percentage to Total (3)	Value of Property (4)	Percentage to Total (5)
1. Andhra Pradesh	6762	9.93	8279	10.08
2. Assam	3811	5.59	4262	5.19
3. Bihar	6965	10.22	7615	9.27
4. Goa	35	0.05	45	0.05
5. Gujarat	3198	4.69	4205	5.12
6. Haryana	650	0.95	763	0.93
7. Himachal Pradesh	528	0.78	709	0.86
8. Jammu and Kashmir	119	0.18	175	0.21
9. Karnataka	1721	2.53	1931	2.35
10. Kerala	1074	1.58	1307	1.59
11. Madhya Pradesh	8573	12.58	10251	12.48
12. Maharashtra	10890	15.99	13936	16.96
13. Orissa	4632	6.80	5107	6.22
14. Punjab	641	0.94	747	0.91
15. Rajasthan	781	1.15	1125	1.37
16. Tamil Nadu	3022	4.44	4055	4.94
17. Uttar Pradesh	3917	5.75	6117	7.45
18. West Bengal	4533	6.65	5067	6.17
19. Delhi	1928	2.83	2413	2.94
20. Other States/Union Territories	409	0.60	546	0.66
21. Unallocated	3930	5.77	3495	4.25
Total	68119	100.00	82150	100.00

APPENDIX 6.13

Capital Invested and Employment in respect of Government of India Companies functioning in Kerala

Name of Company (1)	Capital invested		Employment (Nos.)	
	As on 31-3-1988 (2)	As on 31-3-1989 (3)	As on 31-3-1988 (4)	As on 31-3-1989 (5)
1. Cochin Refineries Limited, Cochin	18000.37	19436.00	1043	1116
2. Cochin Shipyard Limited, Cochin	20518.65	21927.34	2356	2684
3. Fertilisers and Chemicals Travancore Limited, Alwaye	36581.00	41580.10	8216	8483
4. Hindustan Latex Limited, Trivandrum	2472.65	2285.32	1304	1615
5. Hindustan Newsprint Limited, Kottayam	14180.29	12971.64	1704	1692
6. Indian Rare Earths Limited				
(i) Rare Earths Division, Alwaye	N.A.	N.A.	612	612*
(ii) Minerals Division, Chavara	N.A.	N.A.	1093	1093*
7. Indian Telephone Industries Limited, Palghat	N.A.	N.A.	N.A.	N.A.
8. Hindustan Insecticides Ltd. Alwaye	N.A.	N.A.	863	863*
9. Instrumentation Limited, Palghat	N.A.	N.A.	443	469
10. Modern Food Industries (India) Limited, Cochin	N.A.	N.A.	206	206
11. HMT Limited, Kalamassery, Alwaye	1845.17	N.A.	3025	2997
12. Balmer Lawrie & Company Limited, Aroor	N.A.	N.A.	286	291
13. Hindustan Organic Chemicals Limited, Cochin	N.A.	5138.60	358	374
14. Cannanore Spinning and Weaving Mills, Cannanore	388.31	369.45	542	495
15. Parvathy Mills, Quilon	578.51	511.01	1394	1313
16. Vijayamohini Mills, Trivandrum	448.25	415.58	639	613
17. Alagappa Textiles (Cochin) Mills, Trichur	639.31	N.A.	1020	1020*
18. Kerala Lakshmi Mills, Trichur	353.46	358.33	756	723*

* Retained last year's figure.

APPENDIX 6.14

Performance of Government of India Companies in Kerala in terms of Value of Production and Sales Turnover: 1987-88 and 1988-89

(Amount in Rs. lakhs)

Name of Company (1)	Value of Production		Sales Turnover		Export	
	1987-88 (2)	1988-89 (3)	1987-88 (4)	1988-89 (5)	1987-88 (6)	1988-89 (7)
1. Cochin Refineries Limited	101816.25	116902.00	103211.00	116414.00	..	..
2. Cochin Shipyard Limited	3036.58	3877.16	4452.62	4924.84	..	..
3. Fertilisers and Chemicals Travancore Limited	36260.24	25461.40	38423.00	27613.70	..	..
4. Hindustan Latex Limited	811.97	2102.00	1448.77	2140.02	..	15.65
5. Hindustan Newsprint Limited	7482.11	7983.07	7210.44	8368.12	..	..
6. Indian Rare Earths Limited						
(i) Rare Earths Division	917.00	N.A.	992.58	N A	662.79	N A
(ii) Minerals Division	1169.82	N.A.	1107.91	N A	402.78	N A
7. Indian Telephone Industries Ltd.	N.A.	N.A.	N A	N A	..	..
8. Hindustan Insecticides Ltd.	1084.43	N.A.	628.56	N A	NIL	..
9. Instrumentation Limited	1220.20	1485.65	1720.04	1830.98	28.19	..
10. Modern Food Industries (India) Ltd	554.10	584.16	554.10	583.00	..	..
11. H M T Limited	3589.29	4302.59	3327.90	4515.00	531.22	238.10
12. Balmer Lawrie & Co. Limited	401.84	1058.29	430.44	1036.04	266.55	349.10
13. Hindustan Organic Chemicals Ltd.	1420.11	7913.98	1420.11	6900.00	..	700.00
14. Cannanore Spinning and Weaving Mills	506.07	617.29	485.26	626.70	..	..
15. Parvathi Mills	723.27	766.82	722.38	678.96	..	56.18
16. Vijayamohini Mills	447.25	636.46	396.66	636.46	..	..
17. Alagappa Textiles (Cochin) Mills	609.03	N.A.	735.15	N A	..	..
18. Kerala Lakshmi Mills	627.25	822.65	577.22	866.30	..	..

Government of India Companies functioning in Kerala - Main Features

Sl.No.	Name of Company	(Amount in Rs. lakhs)													
		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)		
		Paid up Capital as on 31-3-1988	Share of Government and public Sector Financing in situations in the paid up capital as on 31-3-1989	Total Loans Outstanding and interest accrued as on 31-3-1989	Loan availed in 1988-89	From Government	From Others	Gross Block As on 31-3-1988	As on 31-3-1989	Net fixed Assets as on 31-3-1989	Value of Major raw Materials consumed during 1988-89	Net profit (+) / New Loss (-) 1987-88	1988-89		
1.	Cochin Refineries Limited	1000.38	6848.00	5580.00	1337.00	Nil.	3100.00	22774.08	32390.00	21952.00	106347.00	(+)	1953.97	(+)	4156.00
2.	Cochin Shipyard Limited	6893.00	7121.00	7121.00	16769.57	470.00	..	10901.46	11776.25	7983.62	1189.79	(-)	2585.82	(-)	2637.51
3.	Fertilizers and Chemicals Travancore Limited	29677.20	32277.20	32198.26	9991.21	4400.00	..	21042.00	23025.69	6821.49	19966.12	(+)	1290.00	(+)	597.00
4.	Hindustan Latex Limited	1257.50	1257.50	1257.50	1038.46	1.50	85.62	2764.28	2858.91	1902.57	N.A.	(+)	199.87	(+)	227.18
5.	Hindustan News print Limited	8156.99	8157.99	8157.99	5258.24	NIL	NIL	16020.39	16128.01	8101.25	2140.95	(-)	174.98	(+)	199.83
6.	Indian Rare Earths Limited:														
	(i) Rare Earths Division	Separate figures not available			..	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	(ii) Minerals Division	Separate figures not available			..	NA	NA	712.04	NA	NA	NA	(+)	408.21	NA	NA
7.	Indian Telephone Industries Limited	Separate figures not available			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8.	Hindustan Insecticides Limited	Separate figures not available			NA	NA	NA	..	NA	NA	NA	(-)	26.96	NA	NA
9.	Instrumentation Ltd.	Separate figures not available			..	NIL	449.95	NA	NA	413.17	747.50	(+)	256.19	(+)	348.16
10.	Modern Food Industries (India) Ltd.	Separate figures not available			..	NIL	NIL	154.70	199.94	100.84	345.56	(+)	67.70	(+)	33.97
11.	H M T Limited	Separate figures not available			..	NIL	31.00	2326.36	2439.92	917.05	2269.11	(+)	19.62	(+)	29.88
12.	Bahner Lawrie & Co. Ltd.	do.			..	NIL	NIL	NA	287.49	121.79	697.15	(-)	86.03	(+)	7.64
13.	Hindustan Organic Chemicals Limited	NA	3342.00	3342.00	2605.76	NIL	NIL	NA	10483.72	8238.38	2663.25	(+)	43.16	(+)	216.04
14.	Cannanore Spinning & Weaving Mills	112.08	112.08	112.08	292.58	NIL	NIL	141.06	141.06	52.64	377.51	(+)	2.39	(+)	0.77
15.	Parvathi Mills	368.76	368.76	368.76	998.11	29.50	68.80	364.54	367.18	165.83	387.35	(-)	139.24	(-)	133.76
16.	Vijayamohini Mills	169.42	188.70	182.45	226.88	NIL	NIL	258.20	267.36	151.45	380.71	(-)	25.78	(-)	20.97
17.	Alagappa Textiles (Cochin) Mills	372.18	NA	NA	NA	NA	NA	555.03	NA	NA	NA	(-)	93.38	NA	NA
18.	Kerala Laxmi Mills	79.46	79.46	79.46	324.28	NIL	NIL	474.19	479.57	269.89	486.48	(-)	54.56	(+)	8.17

@Gross Profit.

APPENDIX 6.16

Production and Capacity Utilisation of Government of India Companies Functioning in Kerala: 1987-88 and 1988-89

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation (in percentage)	
			1987-88	1988-89	1987-88	1988-89	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Cochin Refineries Limited	Petroleum Products	Million MT	4.50	4.50	4.11	4.55	91.33	101.02
2. Cochin Shipyard Limited	(i) Ship Building	DWT	150000	150000	28400	38430	18.93	25.62
	(ii) Ship Repair	Lakh GRT	10	10	2.80	4.18	28.00	41.80
3. Fertilisers and Chemicals Travancore Limited								
(a) Udyogamandal Division	(i) Ammonium Sulphate	MT	198000	198000	126921	152112	64.10	76.82
	(ii) Ammonium Phosphate 20:20	"	148500	148500	129504	139314	87.21	93.81
	(iii) Ammonium Chloride	"	24750	24750	4859	3885	19.63	15.70
	(iv) SuperPhosphate	"	44500	44500	14544	17174	32.68	38.59
	(v) Ammonia	"	112200	112200	68135	86794	60.73	77.36
	(vi) Sulphuric Acid	"	250800	250800	215378	210976	85.88	84.12
	(vii) Phosphoric Acid	"	33000	33000	11452	9820	34.70	29.76
	(viii) Cryolite	"	1650	1650	..	..	..	..
(b) Cochin Division	(i) Ammonia	"	198000	198000	100485	138130	50.75	69.76
	(ii) Sulphuric Acid	"	330000	330000	305870	313580	92.69	95.02
	(iii) Phosphoric Acid	"	115000	115000	54200	41610	47.13	36.18
	(iv) Urea	"	330000	330000	193437	264240	58.62	80.07
	(v) N.P.K. Fertilisers	"	485000	485000	424366	476005	87.50	98.15
4. Hindustan Latex Limited	Contraceptive Condoms	Million pieces	448	NA	392	523	87.50	..
5. Hindustan Newsprint Limited.	Newsprint	MT	80000	80000	81513	78660	101.89	98.33
6. Indian Rare Earths Limited								
(a) Rare Earth Division, Alwaye	(i) Rare Earth Chloride	"	5000	NA	3846	NA	76.92	..
	(ii) Trisodium Phosphate	"	5400	NA	5226	NA	96.78	..
	(iii) Rare Earth Fluoride	"	180	NA	230	NA	127.78	..
	(iv) Rare Earth Oxide	"	60	NA	63	NA	105.00	..
(b) Minerals Division, Chavara	(i) Ilmenite	"	144000	NA	80711	NA	56.05	..
	(ii) Monazite	"	240	NA	168	NA	70.00	..
	(iii) Zircon	"	8460	NA	5394	NA	63.76	..
	(iv) Rutile	"	7200	NA	4375	NA	60.76	..
	(v) Silliminite	"	1600	NA	1855	NA	115.94	..
	(vi) Zirflor	"	7200	NA	3311	NA	45.99	..
7. Indian Telephone Industries Limited	Electronic Switching Equipment	Lines	NA	NA	NA	NA	..	..

37/1086/MC.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
8. Hindustan Insecticides Ltd. Limited	(i) Technical DDT	Tonnes	1344	NA	1158	NA	86.16	..
	(ii) Formulated DDT	"	2688	NA	1609	NA	59.86	..
	(iii) Technical BHC	"	3000	NA	1575	NA	52.50	..
	(iv) Formulated BHC	"	3000	NA	2361	NA	78.70	..
	(v) Endosulfan	"	800	NA	310	NA	38.75	..
	(vi) Hildan 35 EC, Hildit 35 EC, etc.	Kilo Litres	1910	NA	448	NA	23.46	..
9. Instrumentation Ltd.	(i) Process Control Valves	Nos.	..	..	2197	2679	..	..
	(ii) Safety Relief Valves and Pressure Reducing Valves	..	..	..	490	41	..	..
	(iii) Miscellaneous items and accessories	"	..	..	3811	3075	..	..
	(iv) Orifice plate/flow measuring device	"	..	..	211	163	..	..
10. Modern Food Industries (India) Limited	(i) Modern Bread	Lakh Nos. of 400 gms)	} 218.32	218.32	233.27	231.33	106.85	105.96
	(ii) Modern Bun	Lakh Nos. of 50 gms)						
11. HMT Limited	(i) Machine Tools	Nos.	455*	445*	458	437	100.66	98.20
	(ii) Printing Machines	"	71*	96*	75	96	105.63	100.00
12. Balmer Lawrie and Co. Limited	Marine Freight and Special Containers	"	3600	3600	998	2030	27.72	56.39
13. Hindustan Organic Chemicals Ltd.	(i) Phenol	MT.	40000	40000	2023	23490	5.06	58.73
	(ii) Acetone	"	24640	24000	1265	14582	5.13	60.76
14. Camanore Spinning and Weaving Mills	Cotton Yarn	Lakh kg.	24800	24800	11.59	12.17	..	..
15. Parvathi Mills	(i) Cotton yarn	"	25076	25076	4.50	4.41	..	..
	(ii) Cloth	Lakh Mtrs.	NA	380	64.18	64.03	..	..
16. Vijayamohini Mills	Cotton yarn	Lakh kg.	30476	30476	8.47	10.79	..	..
17. Alagappa Textiles (Cochin) Mills	Cotton Yarn	"	NA	NA	13.01	NA	..	..
i.e. Kerala Lakshmi Mills	Cotton/Viscos Yarn	"	41520	41520	12.01	13.35	..	..

* Target for the Year

Appendix 6.17

District-wise details of New Small Scale Units Registered in Kerala during 1988-89

Name of District	No. of SSI Units Registered	Estimated		
		Investment (Rs. lakhs)	Production (Rs. lakhs)	Employment (Persons)
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	1103	1522.14	3022.22	5515
2. Quilon	650	897.00	1781.00	3250
3. Pathanamthitta	240	331.20	657.60	1200
4. Alleppey	764	1054.32	2093.36	3820
5. Kottayam	653	914.94	1816.62	3315
6. Idukki	204	281.52	558.96	1020
7. Ernakulam	1245	1718.10	3411.30	6225
8. Trichur	877	1210.26	2402.98	4385
9. Palghat	750	1035.00	2055.00	3750
10. Malappuram	322	444.36	882.28	1610
11. Kozhikode	674	930.12	1846.76	3370
12. Wayanad	100	138.00	274.00	500
13. Cannanore	365	503.70	1000.10	1825
14. Kasaragod	279	385.02	764.46	1395
State—Total	8236	11365.68	22566.64	41180

Appendix 6.18

District-wise details of Small Scale Units Registered in Kerala as on 31-3-1989

Name of District	No. of Registered Units As on 31-3-1989	Estimated		
		Investment (Rs. lakhs)	Production (Rs. lakhs)	Employment (Persons)
(1)	(2)	(3)	(4)	(5)
1. Trivandrum	5617	6684.23	17468.87	37128
2. Quilon	5480	6521.20	17042.80	36223
3. Pathanamthitta	902	1073.38	2805.22	5962
4. Alleppey	5049	6008.31	15702.39	33374
5. Kottayam	4929	5865.51	15329.19	32581
6. Idukki	1299	1545.81	4039.89	8586
7. Ernakulam	7543	8976.17	23458.73	49839
8. Trichur	6048	7197.12	18809.28	39977
9. Palghat	3883	4620.77	12076.13	25667
10. Malappuram	3065	3647.35	9532.15	20260
11. Kozhikode	4652	5535.88	14467.72	30750
12. Wayanad	660	785.40	2052.60	4363
13. Cannanore	5561	6617.59	17294.71	36758
14. Kasaragod	739	879.41	2298.29	4885
State—Total	55427	65958.13	172377.97	366373

Appendix 6.19

Working Status of Small Scale Units in Kerala

District	Working Status as on 31-3-1989					
	Total No. of SSI Units	Sick Units	Closed Units	Sick and closed Units	Working Units	% age of Working Units
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trivandrum	5617	235	892	1127	4490	79.93
2. Quilon	5480	172	363	535	4945	90.23
3. Pathanamthitta	902	47	99	146	756	83.81
4. Alleppey	5049	214	366	580	4469	88.51
5. Kottayam	4929	174	457	631	4298	87.20
6. Idukki	1299	56	128	184	1115	85.83
7. Ernakulam	7543	290	732	1022	6521	86.45
8. Trichur	6048	249	711	960	5088	84.12
9. Palghat	3883	84	267	351	3532	90.96
10. Malappuram	3065	181	244	425	2640	86.13
11. Kozhikode	4652	196	337	533	4119	88.54
12. Wayanad	660	43	69	112	548	83.03
13. Cannanore	5561	202	531	733	4828	86.82
14. Kasaragod	739	28	77	105	634	85.79
State—Total	55427	2171	5273	7444	47983	86.57

APPENDIX 6.20

Kerala State Small Industries Development Corporation—Working Details of Production Units during 1988-89

Name of Unit	Amount in Rs. Lakhs					Number of Employees		
	Fixed Assets	Fixed costs	Break evenpoint	Turn over	Profit/Loss	Workers	Staff	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Sidco Tiles, Amaravila	7.18	16.80	25.00	18.24	(—)3.21	61	10	71
2. (a) Instrument Workshop, Pappanamcode	1.20	11.00	16.00	12.85	(—)1.63	31	10	41
(b) Wood Workshop, Pappanamcode	6.94	N.A.	20.00	13.64	(—)0.25	42	7	49
3. Kerala Water Proof Products, Pappanamcode	1.89	N.A.	26.00	4.94	(—)5.40	44	9	53
4. Pressure Die Casting Unit, Pappanamcode	2.45	9.50	16.00	12.42	(—)2.37	35	12	47
5. Sidco Equipment Complex, Manvila	10.31	12.50	N.A.	25.05	(—)8.40	35	11	46
6. Sidco Tools, Umayanalloor	2.35	10.00	10.00	6.82	(—)3.65	32	15	47
7. Straw Board Factory, Parumala	1.33	11.50	30.00	19.41	(—)4.36	43	9	52
8. Wood Workshop, Kollakadava	1.72	15.00	30.00	12.05	(—)10.55	70	13	83
9. Sidco Auto Engineering, Pachalam	22.19	12.50	60.00	57.10	(—)2.78	46	11	57
10. Sidco Fans, Kalamassery	13.86	N.A.	N.A.	2.73	(—)11.99	29	8	37
11. Service Workshop, Ollur, Trichur	5.34	8.50	20.00	8.79	(—)4.12	22	10	32
12. Wood Workshop, Calicut	22.70	24.12	42.00	49.47	(+)2.11	92	19	111
Total	99.46	131.42	295.00	243.51	(—)56.60	582	144	726

APPENDIX 6.2]

Kerala Financial Corporation—Summary of Loan Operations as on 31-3-1989

(Rs. in lakhs)

Items	During the year 1988-89						Cumulative upto 31-3-1989					
	Small Scale Units		Others		Total		Small Scale Unit		Others		Total	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Applications Pending as on 1-4-1988	394	1978.78	75	164.32	469	2143.10	..	..	..	..	..	..
2. Applications received	1507	4579.41	638	2874.33	2145	7453.74	13753	33962.87	1354	12573.81	15107	46536.68
3. Total Applications for Consideration	1901	6558.19	713	3038.65	2614	9596.84	13753	33962.87	1354	12573.81	15107	46536.68
4. Applications withdrawn/Rejected or Otherwise Deposited of	604	1163.87	214	436.64	818	1600.51	3070	8539.51	392	2960.42	3462	11499.93
5. Applications Sanctioned (Gross)	942	4134.50	614	2541.83	1556	6676.33	10271	24020.83	1134	9125.51	11405	33146.34
6. A. Applications Cancelled/Reduced Out of During the Year of Sanction	22	73.75	15	53.31	37	127.06	..	..	..	..	..	..
B. Applications Cancelled/Reduced Out of Previous Year of Sanction.	65	296.61	20	88.48	85	385.09	..	..	..	..	..	..
C. Total Cancellation/Reduction (6A+6B)	87	370.36	35	141.79	122	512.15	1432	4039.99	101	1115.13	1533	5155.12
7. Applications Sanctioned Effectively (5-6A)	920	4060.75	599	2488.52	1519	6549.27	..	..	..	..	..	..
8. Net Sanction (5-6C)	855	3764.14	579	2400.04	1434	6164.18	8839	19980.84	1093	9010.38	9872	27991.22
9. Amount Disbursed Alongwith Number of Newly Assisted Units	734	2885.62	489	1261.82	1223	4147.44	8314	16064.89	878	5101.93	9192	21166.82
10. Applications Pending for Sanction as at the end of the Period	146	818.40	94	501.60	240	1320.00	597	2510.50	112	952.60	709	3463.10

APPENDIX C.22

District-wise Sanction and disbursement of loan by Kerala Financial Corporation as on 31-3-1989

District (1)	Sanction		Disbursement	
	No. of loans (2)	Amount (Rs. in lakhs) (3)	No. of loans (4)	Amount (Rs. in lakhs) (5)
I. Backward Districts				
<i>Category--A</i>				
1. Idukki	280	1276.76	231	927.37
2. Wayanad	238	513.27	225	385.21
<i>Category--B</i>				
3. Alleppey	636	1866.80	586	1520.75
4. Malappuram	370	1179.40	337	933.12
5. Cannanore	918	2100.39	874	1721.39
6. Kasaragod	177	459.74	139	312.53
<i>Category--C</i>				
7. Trivandrum	1086	3439.44	975	2564.39
8. Trichur	869	3131.18	789	2232.77
Total- Backward Districts	4574	13966.98	4156	10597.53
II. NonBackward Districts				
9. Pathanamthitta	195	708.56	175	559.45
10. Chulion	952	1738.32	928	1451.08
11. Kottayam	895	2287.28	843	1965.44
12. Ernakulam	1866	6305.86	1736	4218.07
13. Palghat	533	1542.82	500	1195.94
14. Kozhikode	916	1821.46	850	1444.28
III. Union Territory of Lakshadweep	6	5.03	6	5.03
Total-Non Backward Districts	5383	14409.33	5036	10569.29
Grand Total	9957	28376.31	9192	21166.82

Industry-wise classification of loans sanctioned and disbursed to small scale sector by Kerala Financial Corporation

(Amount in Rs. lakhs)

Type of Industry (1)	During 1988-89				Upto 31-3-1989			
	Amount Sanctioned (2)	% age to Total (3)	Amount Disbursed (4)	Percentage to Total (5)	Amount Sanctioned (6)	%age to Total (7)	Amount Disbursed (8)	%age to Total (9)
1. Stone Quarrying	83.36	2.18	44.57	1.54	389.92	1.94	197.84	1.23
2. Food Manufacturing	527.96	13.62	394.23	13.66	2468.11	12.28	1813.70	11.30
3. Beverage Units	44.75	1.15	31.62	1.10	141.39	0.70	128.26	0.80
4. Tobacco Manufacturing	..	..	..	..	1.00	..	0.42	..
5. Textiles	8.14	0.21	13.01	0.45	535.14	2.66	418.94	2.61
6. Foot wear and Other Wearing Apparels	23.44	0.60	21.96	0.76	95.03	0.47	85.04	0.53
7. Wood Cork Except Furniture	95.78	2.47	116.71	4.04	520.69	2.59	437.49	2.72
8. Furniture and Fixtures	162.88	4.20	111.17	3.85	832.95	4.15	619.82	3.86
9. Paper Products	177.50	4.58	50.64	1.75	664.38	3.31	399.35	2.49
10. Printing, Publishing and Other Allied Industries	78.41	2.02	69.81	2.42	667.43	3.32	628.79	3.91
11. Leather Goods	1.90	0.05	1.61	0.06	6.45	0.03	5.61	0.03
12. Rubber Goods	848.87	21.89	383.77	13.30	2497.60	12.43	1734.64	10.80
13. Chemicals and Chemical Products	313.59	8.09	170.39	5.90	1430.59	7.12	1105.85	6.88
14. Petroleum Products	..	..	..	..	9.37	0.05	9.37	0.06
15. Non-Metal Industries	239.36	6.17	122.63	4.25	1120.54	5.58	726.04	4.52
16. Basic Metal Industries	..	..	18.04	0.63	186.00	0.93	204.04	1.27
17. Metallic Products	168.06	4.33	128.09	4.44	1498.18	7.46	985.69	6.14
18. Machinery Except Electrical Machinery	1.03	0.03	46.63	1.62	249.03	1.24	259.28	1.61
19. Electrical Machinery	116.38	3.01	54.67	1.90	439.58	2.19	330.18	2.06
20. Transport Equipment	104.94	2.71	81.58	2.83	520.37	2.59	387.82	2.41
21. Motion Pictures	..	..	..	..	71.34	0.36	59.55	0.37
22. Hotels	..	..	..	..	..	..	..	..
23. Fishing Boats	..	..	..	..	226.00	1.12	225.64	1.40
24. Transport	..	..	..	..	2609.71	12.99	2390.71	14.88
25. Industrial Estates	..	..	..	..	..	..	..	..
26. Miscellaneous Industries	879.97	22.69	1024.37	35.50	2912.42	14.49	2910.71	18.12
Total	3877.52	100.00	2885.62	100.00	20094.22	100.00	16064.89	100.00

Khadi and Village Industries

Production, Sales, Employment and Wages during 1988-89

Industry	Production value (Rs. lakhs)	Sales value (Rs. in lakhs)	Employment (Nos.)				Wages paid (Rs. in lakhs)			
			Full time	Part time	Casual	Total	Full time	Part time	Casual	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A. Khadi	360.31	510.98	15460	..	989	16449	318.11	..	9.10	327.21
B. Village Industries.										
1. Processing of cereals and pulses	271.66	299.88	3671	3147	..	6818	147.59	48.21	..	195.80
2. Village oil	1072.83	1158.43	879	1332	..	2211	86.42	70.54	..	156.96
3. Village leather	372.02	392.92	1316	785	..	2101	67.10	22.61	..	89.71
4. Cottage match	288.93	306.30	1593	3347	..	4940	28.64	41.21	..	69.85
5. Gurkhandasari	78.64	86.49	521	238	120	879	13.30	3.41	1.03	17.74
6. Palmgur	191.24	186.91	506	26407	..	26913	6.27	47.70	..	53.97
7. Non-edible oil and soap	102.06	118.86	136	217	..	353	5.91	3.44	..	9.35
8. Handmade paper	18.38	11.19	219	..	..	219	5.10	..	..	5.10
9. Bee Keeping	548.00	530.00	5045	24925	..	29970	..	..	..	..
10. Village Pottery	654.34	673.29	11299	2899	..	17198	282.15	40.22	..	322.37
11. Fibre and Screw-pine	407.74	498.19	54339	2111	..	56450	284.20	10.07	..	294.27
12. Carpentry & Blacksmithy	486.16	446.35	3748	392	..	4140	170.00	8.14	..	178.14
13. Zinc	277.36	305.04	2468	1057	..	3525	86.46	12.74	..	99.20
14. Collection of Forest Plants and Fruits	11.89	13.86	26	170	..	196	0.91	1.51	..	2.42
15. Fruits and Vegetable Preservation	191.03	206.41	671	524	..	1195	14.00	7.16	..	21.16
16. Cane and Bamboo	82.46	81.46	1481	3000	..	4481	58.31	20.13	..	78.44
17. Aluminium	63.65	75.90	242	90	..	332	11.71	2.31	..	14.02
18. Agarbathi	29.68	32.13	275	135	..	410	3.80	1.04	..	4.84
19. Rubber goods	11.25	9.50	75	28	..	103	0.72	0.10	..	0.82
20. Poly vastra	6.86	12.48	374	..	..	374	8.33	..	..	8.33
Total B	5166.18	5385.61	91884	70804	120	162808	1280.92	340.54	1.03	1622.49
Grand Total (A+B)	5526.49	5896.59	107314	70804	1109	179257	1599.03	340.54	10.13	1949.70

APPENDIX 6.25

Coir Co-operative Societies in Kerala

Type of Society	Number of Societies as on	
	31-3-1988	31-3-1989
(1)	(2)	(3)
1. Primary Coir Co-operative Societies		
(a) Working	421	419
(b) New Societies which have not started working	92	92
(c) Dormant Societies	64	66
(d) Societies under liquidation	190	190
Total	767	767
2. Manufacturing Societies		
(a) Working	18	17
(b) New Societies which have not started working	25	28
(c) Dormant Societies	3	4
(d) Societies under liquidation	1	1
Total	47	50
3. Small Scale Producers Co-operative Societies		
(a) Working	6	7
(b) New Societies which have not started working	..	..
(c) Dormant Societies	..	..
(d) Societies under liquidation	..	..
Total	6	7
4. Husk Procurement and Distribution Societies		
(a) Working	2	2
(b) New Societies which have not started working	..	..
(c) Dormant Societies	..	..
(d) Societies under liquidation	1	1
Total	3	3
5. Fibre Societies		
(a) Working	..	..
(b) New Societies which have not started working	..	..
(c) Dormant Societies	1	1
(d) Societies under liquidation	..	..
Total	1	1
6. Co-operative Coir Marketing Federation	1	1
7. Total Number of Coir-Co-operative Societies		
(a) Working	448	446
(b) New Societies not started working	117	120
(c) Dormant Societies	68	71
(d) Societies under Liquidation	192	192
Grand Total	825	829

Source: Directorate of Coir Development.
37/1086/MC.

APPENDIX 6.26

Activities of Coir Co-operative Societies(a) *Primary Coir Co-operative Societies*

Year	No. of working societies	No. of Members ('000)	Husk purchased		Yarn produced		No. of workers (000)	Wages paid Amount (Rs. lakhs)
			No. (in lakhs)	Value (Rs. lakhs)	Quantity (tonnes)	Value (Rs. lakhs)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1986-87	429	222	1264	152	9587	770.00	75	375.00
1987-88	421	229	1338	247	10298	738.00	73	421.00
1988-89	419	232	1341	273	11647	793.00	77	409.00

Source: Directorate of Coir Development.

(b) *Manufacturing Societies*

Year	No. of working Societies	No. of Members ('000)	Value of Production (Rs. lakhs)	Number of workers (No.)	Wages (Rs. lakhs)	Value of Export (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1986-87	23	3522	327.00	2348	N.A.	534.00
1987-88	24	3552	456.00	2163	62.50	N.A.
1988-89	24	3549	376.00	1998	64.00	N.A.

Source: Directorate of Coir Development

APPENDIX 6.27

Export of Coir and Coir Products from India during 1987-88 and 1988-89

Items	1987-88		1988-89	
	Quantity (tonnes)	Value (Rs. lakhs)	Quantity (tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)
1. Coir fibre	2	0.17	7	0.74
2. Coir Yarn	14078	1286.56	12598	1123.50
3. Coir Mats	6542	1110.00	7612	1325.81
4. Coir Matting	3217	603.80	2974	579.89
5. Coir Rugs and Carpets	1236	210.73	1714	289.07
6. Coir and other sorts	21	2.89	28	3.87
7. Coir Rope	50	5.18	39	4.52
8. Rubberised Coir Goods	1	0.41	7	4.73
Total	25147	3219.74	24979	3332.13

Source: Directorate of Coir Development.

APPENDIX 6.28

Production and Productivity—Handloom Industry

Sl. No.	Item	1987-88	1988-89
	(1)	(2)	(3)
1.	Estimated Total Number of Handlooms in the State	95000	95000
2.	Number of looms in the Co-operative sector	58500	58700
3.	Percentage of (2) to (1)	61.57	61.78
4.	Co-operative Sector		
	(i) Production of Handloom cloth (Million metres)	53.25	59.91
	(ii) Value of production (Rs. crores)	32.50	41.90
	(iii) Productivity (Metre/loom)	910	1021
	Corporate sector		
	(i) Number of Looms under Handloom Development Corporation	6370	6984
	(ii) Production of Handloom cloth (Million Metres)	2.55	2.95
	(iii) Value of production (Rs. crores)	2.31	2.42
	(iv) Productivity (Metre/Loom)	400	422
6.	Unorganised Sector		
	(i) Number of Looms in the Unorganised sector	30130	29316
	(ii) Production of Handloom cloth (Million Metres)	42.00	42.00
	(iii) Value of production (Rs. crores)	24.50	25.50
	(iv) Productivity (Metre/Loom)	1394	1433
7.	Total (Co-operative, Corporate and unorganised sector)		
	(i) Production of Handloom cloth (Million metres)	97.80	104.86
	(ii) Value of Production (Rs. crores)	59.11	69.82
	(iii) Productivity (Metre/Loom)	1029	1104
8.	(a) Assistance extended by way of loan and subsidy for the Development of Handloom Industry during 1988-89		
		(Rs. lakhs)	
	(i) Loan		
	State Government	17.13	68.46
	Central Government	15.10	53.60
	N.C.D.C.	33.86	15.54
	Total	66.09	137.60
	(ii) Subsidy		
	State Government	77.42	117.40
	Central Government	11.92	94.90
	N.C.D.C.	2.84	2.70
	Total	92.18	215.00
	(b) Amount spent as Rebate on the sale of Handloom Cloth during 1988-89		
	State Government	377.00	343.00
	Central Government	103.00	120.00
	Total	480.00	463.00

	(1)	(2)	(3)
9. Value of Unsold Stock			
(a) in the Co-operative Sector (Rs. crores)		26.00	28.00
(b) in the Corporate Sector (,,)		2.65	2.00
Total (a+b)		28.65	30.00
10. Number of Co-operative Societies			
(a) Factory Type Societies			
(i) Working Societies		99	104
(ii) Dorment		2	2
(iii) Under Liquidation		2	2
Total		103	108
(b) Cottage Type Societies			
(i) Working Societies		361	361
(ii) Dorment		39	39
(iii) Under Liquidation		82	82
Total		482	482
Grand Total (a+b)		585	590

Source: Directorate of Handloom

Appendix 6.29

Working Results of Handloom Apex Society (Hantex)

Sl.No.	Particulars	For the Year	
		1987-88	1988-89
	(1)	(2)	(3)
1.	Sales Turnover (Rs. crores)	10.00	8.35
2.	Procurement of cloth (Rs. crores)	7.17	6.18
3.	Purchase of yarn (Rs. crores)	1.39	0.87
4.	Distribution of yarn (Rs. crores)	1.45	0.94
5.	Garment Sold (Rs. lakhs)	4.48	4.31
6.	Janatha Production (Rs. lakhs)	26.00	13.87
7.	Polyester Shirting, Saree, Double veshty, Single Veshty—Production (Rs. lakhs)	64.90	57.41
8.	Processed Goods (a) Production (Mts)	..	..
	(b) Value (Rs lakhs)	—	—
9.	No of exhibitions conducted	57	34

Source:—Directorate of Handloom

Note:—The figures for 1987-88 as given in Economic Review 1988 were provisional

Appendix 6.30

Working Results of the Kerala State Handloom Development Corporation, Cannanore

(Amount Rs in lakhs)

Particulars	1967-68	1968-69
(1)	(2)	(3)
1. Paid up capital	192.14	202.14
2. Borrowings	524.25	541.85
3. Gross Block	82.72	88.14
4. Value of production	231.00	242.45
5. Income through Revenue Receipts	47.65	69.76
6. Income through sale of production (G/P)	79.41	61.65
7. Expenditure for Raw Materials consumed	72.40	78.00
8. Expenditure for Personnel payments	91.59	48.34
9. Expenditure for Depreciation	5.00	6.00
10. Expenditure for Interest and Bank charges	23.60	23.90
11. Net profit (+)/Net Loss (-)	(-)7.66	(-)6.66
12. Accumulated Loss	(-)45.32	(-)51.95

Source: Directorate of Handloom

Appendix 6.31

Production and Productivity—Powerloom Industry

Item	1967-68	1968-69
(1)	(2)	(3)
1. Estimated number of powerlooms in the State	4300	4875
2. Number of looms in the co-operative sector	700	880
3. Percentage of (2) to (1)	16.3	18.1
4. Number of powerloom co-operative societies	18	20
5. Number of members in these societies	730	780
6. Co-operative sector		
(i) Production of cloth (lakh metres)	40.00	45.00
(ii) Value of production (Rs lakhs)	280.00	315.00
(iii) Productivity (metre/loom)	5714	5114
7. Unorganised Sector		
(i) Production of cloth (lakh metres)	150.00	155.00
(ii) Value of Production (Rs lakhs)	900.00	1085.00
(iii) Productivity (metre/loom)	4166.00	3880.00
8. Total (Co-operative and Unorganised Sector)		
(i) Production (lakh metres)	190.00	200.00
(ii) Value of production (Rs. lakhs)	1180.00	1400.00
(iii) Productivity (metre/loom)	4418.00	4102.00

Source: Directorate of Handloom

Appendix 6.32

Foreign Exchange Earnings of India From Cashew Industry

(Value Rs. 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	135.96	1.80	137.16	7.41	135.75
1983-84	150.87	1.96	152.23	22.12	130.11
1984-85	179.67	2.03	181.70	38.84*	142.86*
1985-86	225.11	1.95	226.46	24.37*	202.09*
1986-87	327.55*	1.48*	329.03	71.16*	257.87*
1987-88 (P)	322.71	4.87	327.58	67.25	260.33
1988-89 (P)	276.48	2.49	278.97	51.89	227.08

(P) Provisional

* Revised figures

Source: The Cashew Export Promotion Council, Cochin.

Appendix 6.33

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	74.90	17.98	98.07
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	56161*	74.76*	38.84*	211.89*
1985-86	21945*	29.21*	24.37*	132.95*
1986-87	49149*	65.43*	71.16*	388.22*
1987-88 (P)	42256	56.25	67.25	366.88
1988-89 (P)	37078	49.36	51.89	283.09

P—Provisional

* Revised figures

Source: The Cashew Export Promotion Council, Cochin.

Appendix 6.34

Revenue Collection from the Mining Sector

(Amount in Rs.)

Year	Minor Minerals	Major Minerals	Total
(1)	(2)	(3)	(4)
1985-86	5,27,960	52,34,180	5762149
1986-87	6,11,125	44,02,317	5013442
1987-88	8,79,437	103,13,047	111,92,484
1988-89	15,01,631	110,54,862	125,56,493

Source: Department of Mining and Geology

Appendix 6.35

Production of Minerals in Kerala—1987-88 and 1988-89

(Figures in MT)

Mineral	1987-88	1988-89
(1)	(2)	(3)
1. Ilmenite	90360	167719
2. Rutile	5192	7169
3. Sillimanite	1850	5237
4. Zircon	5795	8863
5. Silica Sand		
(a) Crude	34415	42278
(b) Processed	43006	52682
6. Limeshell	125904	144950
7. Limestone	189592	374822
8. China Clay		
(a) Crude	108351	143973
(b) Processed	40903	68959
9. Ball clay	452	

Source: Department of Mining and Geology

APPENDIX 7.1

District-wise Public Works Departmental Roads Improved/Developed/Taken over during 1988-89

(in km.)

Name of District (1)	Developed/Improved					Total (6)	Km. (7)	Taken over (Village Roads) No. (8)
	State High- ways (2)	Major District Roads (3)	Other District Roads (4)	Village Roads (5)				
Trivandrum	--	--	7.4	66.6	74.00	6.410	1	
Quilon	--	--	--	20.7	20.70	..	..
Pathanamthitta	--	--	5.2	14.6	19.80	..	..
Alleppey	--	--	1.4	8.4	9.80	3.076	2	
Kottayam	--	--	4.0	24.5	28.50	12.410	3	
Idukki	1.00	--	3.1	10.7	14.80	..	..
Ernakulam	1.00	3.00	4.00	13.4	21.40	4.965	2	
Trichur	--	--	3.7	6.1	9.80	11.543	3	
Palghat	--	--	--	--	--	8.00	1	
Malappuram	--	--	4.5	10.1	14.60	22.780	3	
Calicut	--	--	--	--	--	12.450	2	
Wayanadu	--	2.00	2.7	50.0	54.70	..	..
Cannanore	1.00	12.00	--	40.7	53.70	21.190	5	
Kasaragode	2.00	28.00	--	48.5	78.50	39.520	6	
Total	5.00	45.00	36.00	314.3	400.30	142.344	28	

Source : Public Works Department

APPENDIX 7.2

Division-wise and Surface-wise length of roads maintained by Public Works Department as on 1-4-1989

(Km)

Name of Division (1)	Cement concrete (2)	Black topped (3)	Water Bound Mecadam (4)	Others (5)	Total (6)
Trivandrum	..	1560.807	57.701	79.461	1697.969
Quilon	..	1411.029	109.339	121.724	1642.152
Pathanamthitta	0.800	1242.180	50.551	156.255	1449.786
Alleppey	..	814.098	20.827	116.133	951.038
Kottayam	16.000	1792.246	29.845	136.475	1974.566
Idukki	..	991.346	92.292	535.888	1619.526
Muvattupuzha	..	993.958	73.455	73.980	1141.393
Ernakulam	0.572	753.386	18.116	28.519	800.593
Trichur	3.391	1420.550	53.906	43.651	1521.504
Palghat	..	1215.348	62.649	188.549	1466.546
Manjeri	..	1275.812	33.523	233.748	1543.083
Calicut	..	1027.555	38.680	139.707	1205.942
Wayanadu	..	498.626	14.450	68.630	581.706
Cannanore	4.112	1060.727	2.030	354.944	1421.183
Kasaragode	..	581.634	8.600	207.848	798.082
Total	24.875	16639.308	665.934	2484.972	19815.089

Source : Public Works Department.

APPENDIX 7.3

Distribution of Public Works Department Roads (Division-wise) as on 1-4-1989

Division	State Highways	Major District Roads	Other District Roads	Village Roads	Total
(1)	(2)	(3)	(4)	(5)	(6)
Trivandrum	117.300	292.766	1201.592	86.311	1697.969
Quilon	167.576	446.992	1027.584	..	1642.152
Pathanamthitta	172.704	457.772	671.852	147.458	1449.786
Alleppey	112.525	122.920	635.232	80.381	951.058
Kottayam	256.911	677.317	918.242	122.096	1974.566
Idukki	327.969	540.560	372.693	378.304	1619.526
Moovattupuzha	120.763	485.058	499.822	35.750	1141.393
Ernakulam	58.402	309.956	427.270	4.965	810.593
Trichur	205.108	511.774	739.201	65.421	1521.504
Palghat	154.804	713.577	421.641	176.524	1466.546
Manjeri	163.518	407.746	521.678	450.141	1543.083
Calicut	67.759	313.034	248.149	577.000	1205.942
Wayanad	40.070	327.631	441.741	72.264	581.706
Cannanore	55.127	290.019	727.193	348.844	1421.183
Kasaragode	28.969	84.593	375.497	309.023	798.082
Total	2049.505	5981.715	8929.387	2854.482	19815.089

APPENDIX 7.4

Surface-wise length of Roads under Public Works Department - Roads by category (km.)

Item	Category of Roads				Total
	State Highways	Major District Roads	Other District Roads	Village Roads	
(1)	(2)	(3)	(4)	(5)	(6)
Cement Concrete					
Length as on 1-4-1988	17.410	8.260	0.270	..	25.940
Length added in 1988-89	(-)0.798	(+)0.003	(-)0.270	..	(-)1.065
Length as on 31-3-1989	16.612	8.263	..	..	24.875
Black Topped					
Length as on 1-4-1988	2019.880	5812.130	7726.820	674.660	16227.490
Length added in 1988-89	4.463	77.890	146.918	182.547	411.818
Length as on 31-3-1989	2018.343	5890.020	7873.738	857.207	16639.308
Water Bound Macadam					
Length as on 1-4-1988	13.150	85.710	549.050	224.350	872.260
Length added in 1988-89	..	(-)26.159	(-)142.888	(-)37.279	(-)206.326
Length as on 31-3-1989	13.150	59.551	406.162	187.071	665.934
Others:					
Length as on 1-4-1988	..	34.850	697.190	1950.560	2682.600
Length added in 1988-89	(+)1.400	(-)10.969	(-)47.703	(-)140.356	(-)197.628
Length as on 31-3-1989	1.400	23.881	649.487	1810.204	2484.972
Total					
Length as on 1-4-1988	2044.440	5940.950	8973.330	2849.570	19808.290
Length added in 1988-89	(+)5.065	(+)40.765	(-)43.943	(+)4.912	(+)6.799
Length as on 31-3-1989	2049.505	5981.715	8929.387	2854.482	19815.089
Total No. of Bridges	..	..	..	..	1748
No. of major bridges	..	..	..	..	..
No. of culverts	..	..	..	..	41766
No. of unsafe bridges	..	..	..	..	222
No. of unsafe culverts	..	..	..	..	2931

APPENDIX 7.5
Type-wise Length of Roads under Panchayats

(in kms.)

District	Black Topped and Metalled		Gravelled		Earthen		Total	
	As on 1-4-1988	As on 1-4-1989*	As on 1-4-1988	As on 1-4-1989*	As on 1-4-1988	As on 1-4-1989*	As on 1-4-1988	As on 1-4-1989*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	637	737	2216	2216	6111	6111	8964	8964
Quilon	150	150	8105	8105	5472	5472	13727	13727
Pathanamthitta	67	79	2395	2395	3746	4300	6208	6774
Alleppey	73	73	2795	2795	2131	2131	4999	4999
Kottayam	369	369	1504	1504	3512	3512	5385	5385
Idukki	70	77	492	517	4173	4477	4735	5071
Ernakulam	1335	1335	1927	1927	3357	3357	6619	6619
Trichur	800	999	3765	4413	4221	4637	9396	10049
Palghat	790	861	1129	1146	3629	3663	5548	5670
Malappuram	327	327	1708	1708	4243	4243	6278	6278
Kozhikode	292	292	1638	1638	3216	3216	5146	5146
Wayanad	675	675	385	385	1369	1369	2429	2429
Cannanore	307	307	1993	1993	4548	4548	6648	6648
Kasaragode	242	274	1896	1934	1881	1937	4019	4145
Total	6134	6455	32558	32676	51609	52973	90301	92104

*Provisional

Source: Directorate of Panchayats.

APPENDIX 7.6

Number of Road Accidents in which Motor vehicles were involved in Kerala during 1987-88 and 1988-89

Sl. No.	Name of District	No. of Road Accidents		No. of persons injured		No. of persons killed	
		1987-88	1988-89	1987-88	1988-89	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1.	Trivandrum City	848	813	906	835	73	68
2.	Trivandrum Rural	712	859	729	917	103	105
3.	Quilon	1024	1179	1367	1395	137	113
4.	Pathanamthitta	463	559	596	671	72	62
5.	Alleppey	998	1161	1346	1338	114	105
6.	Kottayam	1049	1196	1326	1272	116	120
7.	Idukki	288	327	674	795	51	57
8.	Ernakulam City	919	1046	883	1009	101	88
9.	Ernakulam Rural	797	979	1141	1392	115	120
10.	Trichur	1127	1150	1221	1417	146	217
11.	Palghat	1025	1265	1568	1789	128	135
12.	Malappuram	1185	1425	1951	2232	139	166
13.	Kozhikode City	749	970	1119	1269	59	62
14.	Kozhikode Rural	668	788	1187	1124	64	60
15.	Wayanad	260	424	300	648	36	35
16.	Cannanore	705	520	1467	1638	84	95
17.	Kasaragode	264	272	330	357	49	38
Total		13081	14933	18111	20098	1387	1604

APPENDIX 7.7

Motor vehicle Accidents in Kerala by Primary Cause of Accidents 1988-89

District	Fault of driver of motor vehicle	Fault of driver of vehicle other than motor vehicle	Fault of Cyclist	Fault of Pedestrians	Fault of Passengers	Defect in mechanical condition of motor vehicle	Defective Road Surface	Bad Weather condition	Other causes & causes not known	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1. Trivandrum City	757	..	..	3	8	1	..	..	44	813
2. Trivandrum Rural	762	3	5	19	21	7	9	16	17	859
3. Qullon	1109	23	22	9	5	5	3	..	3	1179
4. Pathanamthitta	463	..	4	6	3	47	12	11	13	559
5. Alleppey	1106	6	19	13	6	6	1	4	..	1161
6. Kottayam	1042	2	8	15	6	11	2	..	110	1196
7. Idukki	288	2	5	3	3	19	5	2	..	324
8. Ernakulam City	726	..	67	53	3	10	..	..	187	1046
9. Ernakulam Rural	954	4	1	6	1	1	..	..	12	979
10. Trichur	1132	1	..	6	..	4	..	..	7	1150
11. Palghat	1151	..	12	9	2	1	..	..	90	1265
12. Malappuram	1384	..	4	5	2	22	1	..	7	1425
13. Kozhikode City	888	..	15	38	16	9	..	..	4	970
14. Kozhikode Rural	741	..	8	19	6	13	..	..	1	788
15. Wayanad	390	..	14	5	3	9	1	..	2	424
16. Cannanore	508	..	2	8	..	2	..	..	..	520
17. Kasaragod	266	..	..	..	3	3	..	..	..	272
Total	13667	41	186	217	88	170	34	33	497	14933

APPENDIX 7.8

Growth of Motor Vehicles in Kerala since 1975

Sl. No.	Type of Vehicles	1975	1980	1985	1986	1987	1988	1989
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	<i>Goods Vehicles</i>							
	(i) Four Wheelers and above	15875	20128	36699	40398	45144	49779	50027
	(ii) Three Wheelers including Tempos	..	993	4170	4927	6140	7609	8501
2.	<i>Buses</i>							
	(i) Stage carriages	7828	8705	12910	13497	13102	13741	14432
	(ii) Contract carriages/Omni buses	..	842	2324	2652	3602	4380	4602
3.	<i>Cars and Station Wagons</i>							
	(i) Cars	44497	54381	75731	82222	89023	101731	109814
	(ii) Station Wagons	..	196	507	664	682	777	855
	(iii) Taxi Car	11525	17780	28189	30201	32458	33856	36200
	(iv) Jeep	5859	7023	12972	14721	17012	19893	22225
4.	<i>Three Wheelers</i>							
	(i) Autorickshaw	3125	7397	24383	30537	35838	44116	49396
	(ii) Motorised Cycle rickshaw	..	38	54	55	58	59	59
5.	<i>Two Wheelers</i>							
	(i) Motorised Cycles	..	58	73	73	73	75	72
	(ii) Scooter/Motor Cycle	25769	50943	111629	130992	159863	185349	213849
6.	Tractor, Trailer Articulated	2735	1864	2104	2236	2409	2509	2565
7.	Tractor	..	1892	3089	3268	3457	3657	3968
8.	Tiller	..	469	1118	1214	1379	1640	1788
9.	Trailer	..	260	416	441	498	541	559
10.	Others	2507	1735	2891	3219	3572	4077	4431
	Total	119720	174704	319259	361317	414310	473789	523343
	Percentage increase over the previous year	..	13.01	15.26	13.27	14.57	14.36	10.46

APPENDIX 7.9

Number of Motor Vehicles having valid registration as on 31-3-1989

District	Goods Vehicles		Buses		Cars and Station Wagons			Three Wheelers		
	Four wheelers & above	Three wheelers including Tempos	Stage carriages	Contract carriages/Omni bus	Cars	Station Wagons	Taxi-Cars	Jeeps	Autorickshaw	Motorised Cycle Rickshaw
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Trivandrum	3824	1407	208	1361	19737	94	2834	2864	6523	6
Quilon	6087	139	725	361	12087	39	5269	1159	2397	9
Pathanamthitta	4044	226	402	78	5753	50	2340	823	2064	..
Alleppey	2066	959	545	380	7056	11	3125	383	2524	2
Kottayam	3946	635	899	297	5659	..	2407	1797	3663	5
Idukki	2007	109	315	87	2433	11	2019	1545	298	1
Ernakulam	8606	2635	1521	398	17309	57	3391	1813	5186	17
Trichur	5309	424	1613	618	8079	21	5309	651	6728	18
Palghat	2586	51	846	297	4932	15	1703	834	2354	..
Malappuram	3067	237	883	95	4386	6	3017	3026	3791	..
Calicut	3441	881	1148	267	14657	222	1753	3596	3770	..
Wayanad	913	122	95	21	435	24	639	1286	641	..
Cannanore	3255	508	1260	258	5671	300	1862	1652	6093	1
Kasaragode	900	168	338	83	1612	3	532	763	3364	..
KSRTC (RTO Nos.)	6	..	3634	1	8	2	..	33	..	..
Total	50027	8501	14432	4602	109814	855	36200	22225	49396	59

APPENDIX 7.9 (Contd.)

District	Two wheelers		Tractor Trailer Articulated	Tractor	Tiller	Trailer	Others	Total	No. of Vehicles per 1 km. length of Public Works Depart- ment Roads (surfaced)	No. of Vehicles per 1 km. length of surfaced Road (in- cluding Panchayat Roads)
	Motorised Cycle	Scooter/ Motor Cycle								
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Trivandrum	..	39267	163	116	50	29	1030	79513	49	35
Quilon	9	20685	204	72	65	77	248	49632	33	30
Pathanamthitta	3	8128	12	49	31	4	37	24044	19	18
Alleppey	3	15681	29	236	91	36	55	33182	40	37
Kottayam	..	12220	102	270	250	44	191	32385	18	15
Idukki	9	1999	148	141	41	27	112	11302	11	10
Ernakulam	10	40301	495	351	423	132	932	83577	45	26
Trichur	33	25813	338	576	324	14	307	56175	38	23
Palghat	5	13900	383	1736	357	62	113	30144	24	14
Malappuram	..	5020	85	261	36	45	156	24111	18	15
Calicut	..	15204	50	98	49	48	760	45944	43	34
Wayanad	..	2132	432	22	22	22	32	6838	13	6
Cannanore	..	10150	123	3	11	6	455	31608	30	23
Kasaragode	..	3345	1	37	38	13	3	11200	19	13
KSRTC (RTO Nos.)	..	4	..	..	..	..	..	3688	..	..
Total	72	213849	2565	3968	1788	559	4431	523343	..	..

APPENDIX 7.10

District-wise and Category-wise distribution of Motor Vehicles in Kerala and their percentages during 1988-89

District	Goods Vehicles	Buses	Cars & Station Wagons including Taxi & Jeep	Three Wheelers	Two Wheelers	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	5231 (8.91)	1569 (8.3)	25529 (15.1)	6529 (13.2)	39267 (18.4)	1388 (10.4)	79513 (15.2)
Quilon	6226 (10.6)	1086 (5.7)	18554 (11.0)	2406 (4.9)	20694 (9.7)	666 (5.0)	49632 (9.5)
Pathanamthitta	4270 (7.3)	480 (2.5)	8966 (5.3)	2064 (4.2)	8131 (3.8)	133 (1.0)	24044 (4.6)
Alleppey	3025 (5.2)	925 (4.9)	10575 (6.2)	2526 (5.1)	15684 (7.3)	447 (3.4)	33182 (6.3)
Kottayam	4581 (7.8)	1196 (6.3)	9863 (5.8)	3668 (7.4)	12220 (5.7)	857 (6.4)	32385 (6.2)
Idukki	2116 (3.6)	402 (2.1)	6008 (3.6)	299 (0.6)	2008 (0.9)	469 (3.5)	11302 (2.2)
Ernakulam	11241 (19.2)	1919 (10.1)	22570 (13.4)	5203 (10.5)	40311 (18.8)	2333 (17.5)	83577 (16.0)
Trichur	5733 (9.8)	2231 (11.7)	14060 (8.3)	6746 (13.6)	25846 (12.1)	1559 (11.7)	56175 (10.7)
Palghat	2607 (4.5)	1143 (6.0)	7484 (4.4)	2354 (4.8)	13905 (6.5)	2651 (19.9)	30144 (5.8)
Malappuram	3304 (5.7)	978 (5.1)	10435 (6.2)	3791 (7.7)	5020 (2.3)	583 (4.4)	24111 (4.6)
Calicut	4322 (7.4)	1415 (7.4)	20228 (12.0)	3770 (7.6)	15204 (7.1)	1005 (7.6)	45944 (8.8)
Wyanad	1035 (1.8)	116 (0.6)	2384 (1.4)	641 (1.3)	2132 (1.0)	530 (4.0)	6838 (1.3)
Cannanore	3763 (6.4)	1518 (8.0)	9485 (5.6)	6094 (12.3)	10550 (4.8)	598 (4.5)	31608 (6.0)
Kasaragode	1068 (1.8)	421 (2.2)	2910 (1.7)	3364 (6.8)	3345 (1.6)	92 (0.7)	11200 (2.1)
KSTRC (RTO Nos.)	6	3635 (19.1)	43	..	4	..	3688 (0.7)
Total	58528 (100)	19034 (100)	169094 (100)	49455 (100)	213921 (100)	13311 (100)	523343 (100)

APPENDIX 7.11

Number of Vehicles newly registered in the State during the year 1988-89

District	Goods vehicles		Buses		Cars and Station Wagons				Three Wheelers		Two Wheelers	
	Four Wheelers and above	Three Wheelers including Tempos	Stage Carriages	Contract carriages/Omini Buses	Cars	Station Wagons	Taxis	Jeeps	Auto-rickshaws	Motorised Cycle rickshaws	Motorised Cycle	Scooter/Motor-cycle
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	67	153	6	106	1152	--	320	13	537	..	..	3205
Quilon	129	..	14	13	474	..	81	..	294	..	..	1619
Pathanamthitta	73	46	16	2	109	18	314	146	473	..	..	1436
Alleppey	137	48	8	20	259	1	61	7	394	..	..	1578
Kottayam	202	38	60	32	407	..	207	168	358	..	..	1859
Idukki	54	5	44	5	57	..	65	91	18	..	..	181
Ernakulam	517	268	45	56	1149	..	156	177	503	..	..	5681
Trichur	161	136	79	41	502	..	174	88	1099	..	..	3718
Palghat	99	..	28	12	261	..	1	63	128	..	..	1716
Malappuram	149	107	48	10	296	..	..	435	491	..	..	806
Kozhikode	134	87	41	29	376	51	..	132	305	..	..	3296
Wayanad	33	2	7	2	39	5	..	163	41	..	..	189
Cannanore	150	28	107	26	367	..	..	85	655	..	..	933
Kasaragode	67	16	14	23	81	3	16	50	68	..	..	439
KSTRC (RTO Nos.)	..	..	415	..	..	..	..	..	..	..	..	..
Total	1972	934	932	377	5529	78	1394	1618	5364	..	..	26656

District	Tractor Articulated	Tractor Trailer	Tiller	Tractor Trailer	Others	Total
(1)	(14)	(15)	(16)	(17)	(18)	(19)
Trivandrum	..	2	2	--	25	3588
Quilon	..	5	9	--	3	2641
Pathanamthitta	1	8	5	2	1	2650
Alleppey	7	6	..	..	4	2530
Kottayam	1	7	9	..	5	3352
Idukki	7	4	4	5	5	545
Ernakulam	..	24	55	4	34	8669
Trichur	2	59	16	..	20	6095
Palghat	30	102	23	..	4	2467
Malappuram	17	28	6	2	3	2398
Kozhikode	3	1	1	7	140	4603
Wayanad	21	..	..	..	1	503
Cannanore	7	..	7	..	209	2574
Kasaragode	1	3	4	..	..	785
KSRTC (RTO Nos.)	..	..	..	..	..	415
Total	97	249	141	20	454	45815

Kerala State Road Transport Corporation—Operational Statistics—1988-89

Transport Unit	No. of buses held as on 31-3-1989	No. of schedules as on 31-3-1989	No. of routes as on 31-3-1989	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	57	50	43	1591	57.49	57.01	147.13	54.1
2. Neyyattinkara	103	99	178	4778	96.80	96.56	329.58	58.7
3. Poovar	53	47	52	1336	44.06	43.20	158.81	57.7
4. Vizhinjam	59	55	30	1675	52.03	51.65	171.77	56.4
5. Kattakada	62	58	120	3416	39.51	39.31	187.43	54.2
6. Trivandrum Central	198	118	147	12412	143.83	143.63	228.52	55.6
7. Pappanamcode	112	107	219	2651	66.69	66.30	413.35	48.9
8. Trivandrum City	165	152	380	4850	86.72	86.19	629.69	52.1
9. Vikas Bhavan	84	75	274	4144	51.98	51.12	300.46	50.3
10. Peroorkada	58	54	219	4084	34.01	33.89	246.36	49.1
11. Nedumangad	110	98	155	5015	87.12	86.08	308.42	55.7
12. Kilimanoor	45	40	168	4662	39.88	39.71	111.82	53.7
13. Attingal	70	62	134	4804	61.73	61.13	190.73	55.1
14. Quilon	106	90	198	7075	98.11	97.40	267.70	57.0
15. Kottarakara	75	71	284	8244	58.76	58.41	246.68	54.5
16. Punalur	48	42	132	4973	42.38	41.92	153.88	53.5
17. Pathanamthitta	54	48	105	5048	47.65	47.30	115.62	54.4
18. Adoor	41	36	90	1484	35.77	35.70	111.07	53.5
19. Karunagappally	44	40	86	4180	39.29	39.09	154.78	57.4
20. Kayamkulam	64	56	160	5640	70.36	70.01	195.47	55.6
21. Haripad	26	23	53	1587	25.48	25.35	64.21	56.3
22. Mavelikara	25	21	46	2203	24.54	24.48	61.65	56.5
23. Alleppey	76	72	120	4075	77.33	76.85	231.94	54.1
24. Sberthalai	67	64	154	5243	64.88	64.46	206.69	58.8
25. Changanassery	55	51	163	5917	45.55	45.22	155.67	53.8
26. Thiruvalla	53	49	158	5986	42.74	42.37	216.55	57.9
27. Changanassery	55	51	123	4502	47.64	47.30	152.49	53.9
28. Kottayam	96	82	170	10829	87.75	87.44	296.80	54.6
29. Ponakunnam	27	22	23	2515	27.38	27.01	43.43	55.8
30. Palai	50	46	112	4025	54.47	45.28	123.39	54.1
31. Erattupetta	32	30	60	3407	29.57	29.30	83.08	54.6
32. Vaikom	33	29	12	1023	31.05	30.86	71.96	54.7
33. Moovattupuzha	47	42	73	3528	43.38	43.03	111.42	54.4
34. Thodupuzha	34	28	56	4351	36.31	36.24	48.30	54.5
35. Kothamangalam	35	29	44	3168	35.38	35.17	56.24	56.8
36. Ernakulam	57	54	111	8310	66.48	66.10	99.17	55.7

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
37. Alwaye	75	66	157	5158	58.09	57.96	195.83	58.9
38. North Parur	80	26	98	3567	25.89	25.80	76.48	54.4
39. Perumbavoor	48	41	94	2947	44.34	44.01	129.90	54.2
40. Chalakkudy	43	37	105	4012	37.74	37.52	99.86	54.8
41. Mala	29	25	45	1184	30.42	30.19	57.28	58.8
42. Trissur	62	52	79	5700	69.96	60.64	180.94	54.2
43. Puthukkad	13	12	30	1060	12.92	12.88	41.38	57.8
44. Guruvayur	50	43	28	4007	64.77	64.60	62.01	55.8
45. Ponnani	23	17	17	2694	26.49	26.39	23.92	57.3
46. Perinthalmanna	25	20	19	3398	25.63	25.48	30.42	54.7
47. Palakkad	77	70	62	10362	94.12	93.60	101.37	54.3
48. Malappuram	35	29	28	3177	35.05	34.93	37.84	55.0
49. Kozhikode	99	77	87	6211	89.46	89.29	171.82	55.6
50. Thamarassery	26	23	36	911	20.65	20.55	64.21	56.4
51. Sulthan Battery	118	110	154	7742	113.48	112.34	273.44	59.7
52. Cannanore	75	67	84	6882	74.00	73.60	176.05	54.7
53. Payyannur	35	31	45	2871	36.70	36.48	73.48	53.9
54. Kasaragode	26	19	22	1976	27.95	27.73	30.51	53.6
55. Mananthavady	55	32	46	1044	10.03	10.03	27.04	55.1
Total	3240	2888	3865	173158	2852.71	2865.02	8544.58	54.8

APPENDIX 7.13

Kerala State Road Transport Corporation—Operational Ratios—1988-89

Transport Unit	Average No. of buses held daily	Average km run per day per bus	Percentage vehicular utilisation	Average route length (Km.)	Average distance travelled by a passenger (Km.)	Average earnings per passenger (Paise)	Earnings per km. of buses operated (Paise)	Earnings per vehicle on road per day (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Parassala	57.0	325.7	84.1	37.0	15.8	172.5	445	1450
2. Neyyattinkara	102.7	290.4	88.7	26.8	12.2	130.1	444	1290
3. Poovar	54.6	258.6	83.8	25.7	11.8	119.7	440	1198
4. Vizhinjam	60.6	285.7	81.7	58.8	12.8	136.2	453	1294
5. Kattakkada	59.3	215.9	84.1	35.6	12.0	81.8	583	1258
6. Thiruvananthapuram Central	128.4	349.8	87.6	34.4	28.0	334.9	533	1864
7. Pappanamcode	107.2	179.4	94.4	12.1	8.1	78.2	488	875
8. Thiruvananthapuram City	161.9	172.1	84.6	14.4	7.4	67.4	498	848
9. Vikas Bhavan	77.9	209.9	86.2	15.1	7.8	73.9	484	912
10. Perorkada	58.7	176.3	89.6	15.6	6.6	60.9	442	780
11. Nedumangad	92.9	296.7	85.6	32.4	12.7	129.0	462	1371
12. Kilimanur	42.9	302.7	84.1	33.7	14.5	157.0	442	1338
13. Attingal	66.9	307.8	81.5	35.9	14.6	155.9	486	1497
14. Kollam	101.9	305.5	85.7	35.7	17.3	194.3	534	1632

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15. Kottarakkara	76.9	294.7	85.3	29.0	13.6	146.7	513	1511.
16. Punalur	47.9	273.3	87.6	37.6	12.7	139.4	512	1398
17. Pathanamthitta	48.9	293.3	90.2	48.1	20.8	244.1	597	1750
18. Adoor	40.6	282.9	85.2	37.5	15.3	169.3	527	1490
19. Karunagappally	45.4	286.1	82.4	48.6	13.8	143.6	569	1627
20. Kayamkulam	63.7	285.9	85.5	41.5	14.1	143.8	494	1414
21. Harippad	26.7	328.1	79.2	28.6	20.5	231.2	585	1921
22. Mavelikkara	24.6	347.5	78.5	47.9	18.7	220.1	554	1927
23. Alappuzha	78.6	306.4	87.4	34.0	16.5	179.5	542	1661
24. Sherthala	70.8	306.3	81.4	34.0	14.9	159.3	510	1563
25. Chengannur	56.3	271.8	80.9	36.3	19.1	149.3	514	1396
26. Thiruvalla	52.3	256.5	86.4	37.9	10.2	107.6	550	1411
27. Changanassery	54.6	278.7	85.1	36.5	15.6	172.0	554	1545
28. Kottayam	96.2	295.5	85.1	63.7	13.6	156.2	530	1551
29. Ponkunnam	27.9	330.9	80.6	109.0	27.7	271.0	533	1764
30. Palai	50.3	287.0	85.8	35.9	21.6	210.4	573	1645
31. Erattupetta	31.3	294.1	27.3	49.4	18.9	216.8	615	1807
32. Vaikom	33.0	293.8	87.2	85.3	21.5	242.4	565	1660
33. Moovattupuzha	47.4	301.7	82.9	48.3	18.7	214.5	555	1575
34. Thodupuzha	36.9	367.5	73.2	77.7	31.5	394.1	525	1929
35. Kothamangalam	31.9	376.9	80.1	72.0	26.1	314.1	502	1893
36. Ernakulam	60.6	373.4	79.9	74.9	32.1	385.4	578	2160
37. Aluva	73.3	461.6	81.8	32.9	13.3	139.3	469	1242
38. North Paravur	28.6	281.6	87.4	36.4	14.2	153.9	456	1284
39. Perumbavoor	49.4	292.6	83.4	31.3	15.3	174.7	510	1493
40. Chhalakkudy	42.9	296.8	83.5	38.2	18.0	197.2	525	1505
41. Mala	30.3	343.3	79.5	26.3	20.7	241.4	457	1570
42. Thrissur	60.6	373.9	84.2	72.2	17.4	210.6	547	2086
43. Puthukkad	13.3	309.4	85.5	35.3	17.9	194.2	624	1927
44. Guruvayoor	48.9	440.7	82.0	143.1	42.2	537.2	516	2273
45. Ponnani	23.6	381.5	80.4	158.5	47.2	606.0	549	2096
46. Perinthalmanna	23.6	351.2	84.1	178.8	34.2	416.9	498	1748
47. Palakkad	80.8	377.9	84.1	167.2	39.2	488.0	527	1993
48. Malappuram	33.4	316.1	90.4	113.5	36.3	447.2	484	1531
49. Kozhikode	94.9	312.4	82.9	71.4	21.8	254.2	488	1524
50. Tlamarassery	24.4	301.7	81.9	25.3	14.1	152.6	489	1339
51. Sulthanbathery	111.4	312.2	86.2	53.7	16.9	182.8	444	1425
52. Cannanore	75.5	301.9	88.4	82.0	16.3	192.4	460	1390
53. Payyannur	37.3	252.1	88.8	63.8	19.6	223.6	539	1359
54. Kasaragode	24.0	364.7	86.6	89.8	33.9	416.9	459	1673
55. Manamthavady	34.8	231.7	79.8	22.7	17.5	193.1	521	687
Total	3186.1	290.0	85.0	44.8	15.5	170.0	507	1470

APPENDIX 7.14

Air Traffic (Indian Airlines) from Trivandrum-Cochin --1987-88 and 1988-89

Sector (1)	Originating Traffic				Terminating Traffic			
	1987-88		1988-89		1987-88		1988-89	
	Passenger (Nos.) (2)	Freight (Tonnes) (3)	Passenger (Nos.) (4)	Freight (Tonnes) (5)	Passenger (Nos.) (6)	Freight (Tonnes) (7)	Passenger (Nos.) (8)	Freight (Tonnes) (9)
Cochin-Madras	22393	34.79	18082	40.42	21694	208.90	18981	218.84
Cochin-Bangalore	24389	27.32	22198	34.99	24852	83.39	21642	53.74
Cochin-Trivandrum	8839	115.77	9591	218.55	7438	434.88	7303	449.27
Cochin-Bombay	120042	708.45	111594	602.58	134918	393.35	123204	352.29
Cochin-Delhi	12700	34.90	12234	28.05	12913	123.67	13266	135.33
Cochin-Goa	5403	3.86	6201	7.12	5295	16.00	5254	17.70
Sub-Total	194166	925.09	179900	931.71	207110	1260.39	189650	1227.19
Trivandrum-Hyderabad	1198	1.77	1366	0.78	1299	1.22	1864	1.35
Trivandrum-Goa	2670	0.15	3209	0.78	2251	6.05	3042	10.52
Trivandrum-Madras	19822	59.57	22101	88.71	22456	391.98	24625	314.05
Trivandrum-Bangalore	12789	18.17	15111	10.99	13665	62.72	16408	67.27
Trivandrum-Madurai	N.A.	N.A.	Nil	2.27	N.A.	N.A.	Nil	Nil
Trivandrum-Trichy	414	0.04	N.A.	N.A.	595	33.53	N.A.	N.A.
Trivandrum-Colombo	8089	0.23	9224	1.61	7666	7.92	10018	11.40
Trivandrum-Male	11438	493.50	15025	507.76	11288	11.77	13572	5.58
Trivandrum-Bombay	69568	331.05	73161	522.94	79705	1294.33	79286	1407.88
Trivandrum-Delhi	8870	3.73	9455	3.07	8146	98.77	8884	81.80
Sub-Total	134858	908.21	148652	1138.91	147071	1908.29	157699	1899.85
Calicut-Bombay	N.A.	N.A.	22182	8.21	N.A.	N.A.	23241	13.23
Grand Total	329024	1833.30	350734	2078.83	354181	3168.68	370590	3170.27

APPENDIX 7.15

No. of passports issued by the Passport and Emigration Offices of Cochin and Calicut during 1988-89

Year & 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)
1988									
April	9161	4786	13947	7894	7018	14912	312	409	721
May	9653	7859	17512	10024	6510	16534	336	536	872
June	11553	10040	21593	8018	7031	15049	398	461	859
July	10309	9689	19998	8007	6161	14168	251	466	717
August	10042	9476	19518	7452	6220	13672	218	447	665
September	12262	13400	25662	12010	7000	19010	426	551	977
October	15346	9375	24721	10011	6512	16523	178	1157	1335
November	14514	8780	23294	10572	5510	16082	171	420	591
December	15461	13409	28870	13020	9000	22020	189	493	682
1989									
January	12263	9855	21618	10693	7030	17723	150	538	738
February	12129	8890	21019	10036	6516	16552	164	589	753
March	12668	10003	22671	15206	10230	25436	177	839	1016
Total	145361	115062	260423	122943	84738	207681	2970	6956	9926

APPENDIX 7.16

No. of ships that call at Cochin Port during 1987-88 and 1988-89 and their Net Registered Tonnage

Type of vessel	No. of ships		% variation increase(+)/ decrease(-)	Net Registered Tonnage	
	1987-88	1988-89		1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)
Tankers	193	225	+16.6	3025240	3609496
Colliers	..	..	..	..	..
Foodgrains ships	2	11	+450.0	12165	109166
Fertilizer ships	78	70	-10.3	686743	585847
General Cargoships*	268	278	+3.7	962159	972414
Container ships	172	195	+13.4	903561	781100
Ro Ro Ships	..	..	..	..	..
Passenger ships	3	1	-66.7	32871	4410
Total	716	789	+8.9	5622739	6777333

* Including passenger-cum-cargo ships

Source: Administration report of Cochin Port Trust, 1988-89

APPENDIX 7.17

Number and Tonnage of Steamers and sailing vessels which called at the Intermediate and Minor Ports of Kerala during 1988-89

Sl. No.	Name of Ports	Coastal/Foreign	Steamers		Sailing vessels		Total No. of vessels	Total Tonnage	
			No.	Tonnage	No.	Tonnage			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
I. Intermediate Ports									
1.	Neendakara	C	..	..	..	..	..	..
		F	6	40023.14	..	..	6	40023.14
2.	Alleppey	C	..	..	..	..	..	..
		F	3	27246.55	..	..	3	27246.55
3.	Calicut (including Beypore)	C	41	16400.00	216	25971.00	257	42371.00	
		F	7	34977.00	6	1575.00	13	36552.00	
II. Minor Ports									
4	Trivandrum	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
5	Quilon	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
6	Kodungalloor	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
7	Ponnani	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
8	Badagara	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
9	Azhikkal	C	..	..	91	8419.00	91	3179.00
		F	..	..	..	..	..	..
10	Tellicherry	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
11	Cannanore	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
12	Kasaragod	C	..	..	..	..	..	..
		F	..	..	..	..	..	..
13	Kovalam-Vizhinjam	C	32*	4760.00	..	..	32	4760.00
		F	..	..	..	..	..	..
Total			C	73	21160.00	307	34390.00	380	55550.00
			F	16	102246.69	6	1575.00	22	103821.00
Grand Total (1988-89)				89	123406.69	313	35965.00	402	159371.69
Total for 1987-88			C	21	3103.00	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

*Fishing Trawlers

C—Coastal F—Foreign

Source: Directorate of Ports

APPENDIX 7.18

Commodity-wise cargo handled at the Intermediate and Minor ports of Kerala during 1988-89

Sl. No.	Name of Port	Commodity	(in tonnes)						
			Imports			Exports			Grand Total
			Coastal	Foreign	Total	Coastal	Foreign	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1	Alleppey	Foodgrains	..	63,105	63,105	..	..	..	63,105
2	Calicut	1. Timber	143	3,849	3,992	7,543	50	7,593	11,585
		2. Bricks/Tiles	114	..	114	4,323	961	5,289	5,403
		3. Foodgrains	51	1,03,353	1,03,354	..	1,960	1,960	1,05,314
		4. Cement	..	..	..	3,768	..	3,768	3,768
		5. Miscellaneous	3,139	960	4,419	4,149	874	5,023	9,442
3	Neendakara	Ilmenite	..	..	..	..	98,670	98,670	98,670
4	Azhikkal	1. Timber	..	..	..	6,713	..	6,713	6,713
		2. Miscellaneous	9	..	9	..	..	..	9
5	Bodagara	..	..	..	..	..	..	..	..
6	Cannanore	..	..	..	..	..	..	..	..
7	Kasaragod	..	..	..	..	..	..	..	..
8	Kodungallore	..	..	..	..	..	..	..	..
9	Kovalam-Vizhinjam	..	..	..	..	..	..	..	..
10	Ponnani	..	..	..	..	..	..	..	..
11	Tellicherry	..	..	..	..	..	..	..	..
12	Trivandrum	..	..	..	..	..	..	..	..
13	Quilon	..	..	..	..	..	..	..	..
Total			3,756	1,71,237	1,74,993	26,501	1,02,515	1,29,016	3,04,009

Source: Directorate of ports

APPENDIX 7.19

Dredging Operation conducted at the Intermediate and Minor Ports of Kerala during 1988-89

Name of dredger	Capacity of dredger	Ports of dredging	Qty. dredged		Dredging done for others		Amount valued (Rs.)
			Time in hours	Qty. dredged m ³	Agency	Qty. dredged m ³	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Cutter suction dredger Meena Kerala	600 m ³ /h	(i) Beypore port	..	..	..	As in col. 5	In the absence of measured quantities the value cannot be correctly assessed. The value of dredging one cubic metre with cutter suction dredger Meena Kerala will be Rs. 20 and by cutter suction dredger Neendakara will be Rs. 11
2. Cutter suction dredger Neendakara	200 m ³ /h	(i) Neendakara fishing harbours	132	..	..	"
		(ii) Neendakara cargo harbours	242	..	..	"
3. Grab Dredger		(i) Beypore port	29	..	..	"
		(ii) Neendakara port	25	..	..	"
(1) Cutter suction dredger Meena Kerala	600 m ³ /h	Private Dredging					
		(i) Azhikkal	23	..	Silk	"	
(2) Cutter suction dredger Neendakara	200 m ³ /h	(ii) Cochin Udyogamandal canal	132	..	Irrigation department	"	
Total			583				

* Dredging upto 31-8-1989 was negligible due to rough weather.

Source: Directorate of ports

APPENDIX 7.20

Category-wise break-up of Revenue collected at the Intermediate and Minor ports of Kerala during 1988-89

(Rs. in lakhs)

Sl. No.	Name of Port	Port dues	Export import/dues	Tug hire charges	Pilotage fees	Miscellaneous		Private dredging charges	Total
						Ground rent, shed rent etc.	Registration and other fees		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1	Alleppey	0.32	1.16	0.24	..	1.16	0.34	..	3.22
2	Calcut	0.40	2.59	0.73	0.03	6.65	..	..	10.40
3	Neendakara	0.17	1.97	14.53	..	3.24	1.33	..	21.24
4	Azhikkal	0.02	0.39	..	..	0.17	0.02	..	0.60
5	Badagara	..	..	..	..	0.09	..	..	0.09
6	Cannanore	..	..	..	..	0.05	0.07	..	0.12
7	Kasaragode	0.01	..	..	..	0.25	0.33	..	0.59
8	Kodungallore	..	..	..	..	..	0.75	..	0.75
9	Kovalam-Vizhinjam	0.04	..	..	..	..	0.01	..	0.05
10	Ponnani	..	..	..	..	0.27	0.05	..	0.32
11	Tellicherry	..	..	..	..	0.14	0.02	..	0.16
12	Trivandrum	..	..	..	..	0.15	..	..	0.15
13	Quilon (including under Neendakara port)	..	..	..	..	..	..	..	..
14	Directorate of ports	..	..	..	..	0.93	..	2.73	3.66
Total		0.96	6.11	15.50	0.03	13.10	2.92	2.73	41.95

Source: Directorate of ports.

APPENDIX 7.21

Number of Harbour crafts registered at the Intermediate and Minor Ports of Kerala during 1988-89

Sl. No.	Name of ports	Cargo boats including barges	Canoes including boats	Mechanised Fishing Vessels	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	
1	Alleppey	..	..	187	..	187
2	Calicut	10	..	26	..	36
3	Neendakara	..	..	18	..	18
4	Azhikkal	..	..	..	..	..
5	Badagara	..	..	..	..	..
6	Cannanore	..	..	24	..	24
7	Kasaragode	..	64	89	..	153
8	Kodungallore	..	..	317	..	317
9	Kovalam-Vizhinjam	..	..	..	..	..
10	Ponnani	..	1	81	..	82
11	Tellicherry	..	..	6	..	6
12	Trivandrum	..	..	..	..	..
13	Quilon	..	..	..	..	..
Total		10	65	748	..	823

Source: Directorate of ports

37.1086/MC.

APPENDIX 7.22

Name of Speed Post Centres

Inland		International	
Sl. No.	Name	Sl. No.	Name
(1)	(2)	(3)	(4)
1	Agarthala	1	Australia
2	Agra	2	Austria *
3	Ahmedabad	3	Bahrain*
4	Alwaye	4	Bangladesh.
5	Allahabad	5	Belgium
6	Bangalore	6	Egypt*
7	Bhopal	7	France
8	Bhubaneswar	8	FRG (W. Germany,
9	Bombay	9	Greece*
10	Calcutta	10	Hongkong*
11	Chandigarh	11	Iraq
12	Cochin	12	Ireland
13	Coimbatore	13	Japan
14	Cuttack	14	Luxumburg
15	Dhanbad	15	Macan*
16	Delhi	16	Netherlands*
17	Guwahati	17	Norway
18	Goa	18	Oman
19	Gorakhpur	19	Pakistan*
20	Gwalior	20	Portugal
21	Hyderabad	21	Qatar
22	Imphal	22	Rep. of Korea
23	Indore	23	Rwanda
24	Jaipur	24	Senigal*
25	Jammu	25	Singapore
26	Jamshedpur	26	Spain
27	Kanchipuram	27	Sweden
28	Kanpur	28	Switzerland*
29	Lucknow	29	Thailand
30	Madras	30	Tunisia
31	Madurai	31	Turkey*
32	Mangalore	32	U.A.E.*
33	Meerut	33	U.K. *
34	Mordbad	34	U.S.A.*
35	Mysore	35	U.S.S.R. *
36	Nagpur		
37	Patna		
38	Pondicherry		
39	Pune		
40	Quilo		
41	Raipur		
42	Ranchi		
43	Salem		
44	Shillong		
45	Shimla		
46	Silchar		
47	Srinagar		
48	Surat		
49	Tirupati		
50	Tirupur		
51	Trichi		
52	Trivandrum		
53	Vadodara		
54	Varanasi		
55	Vijayawada		
56	Vishakhapatnam		

Source: Chief Post Master General, Kerala Circle.

* Merchandise Service available

APPENDIX 7.23

Growth of post system in Kerala during the last ten years

Category	As on 1st April									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<i>Postal services</i>										
Head Offices	41	51	51	51	51	51	51	50	50	50
Sub Offices:										
(Departmental and Extra Departmental)	1994	2087	2110	2126	2187	2220	2027	1971	1971	1971
Branch Offices together with Speed Post Centres	2474	2440	2486	2501	1511	2674	2671	2727	2761	2761
Total *	4512	4576	4647	4678	4749	4754	4748	4748	4782	4782

Source: Chief Post Master General, Kerala Circle

* Total does not include the number of offices in other postal services such as Railway Mail service, Mail Motor Service Division and Central Stamp Depot. As Mahe comes under Badagara Division and Lakshadweep comes under Lakkshadweep Division, the total includes post offices in Mahe & Lakshadweep.

③ Speed post introduced in the year 1987, with 2 centres in Kerala, during 1988 Kerala has the same two centres and in 1989 the number increased to 4.

APPENDIX 7.24

Category-wise offices in postal and other postal services

Sl. No.	Category of office	As on 1st April	
		1988	1989
(1)	(1)	(2)	(3)
<i>(a) Postal Services</i>			
1.	Head Post Offices	50	50
2.	Sub Post Offices		
	(i) Departmental	1417	1417
	(ii) Extra Departmental	354	354
3.	Branch offices	2761	2761
	Total (a)	4782	4782
(b)	Speed Post Centres	2	4
<i>(c) Other Postal Services</i>			
1.	Railway Mail Service Offices		
	(i) Head Record Office	3	3
	(ii) Sub Record Office	23	23
	(iii) Sorting Mail Office	31	31
	(iv) Transit Mail Office	11	11
	(v) R.M.S. Sections	18	18
	(vi) Press sorting office	3	3
	(vii) Parcel Sorting Office	3	3
	Total —(1)	92	92
2.	Mail Motor Service Division Units	5	5
3.	Central Stamp Depot	1	1
	Total (c)	98	98

APPENDIX 7.25

Average area and population served by each post office in Kerala as on 1-4-1989

Name of Division	Name of District/Island	No. of post offices	Area	Area served by each office (sq.km.)	Population* (in 1000s)	Population served by each post office
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1 Trivandrum South	Trivandrum	401	2192	5.466	2994	746
2 Trivandrum North	Trivandrum					
3 Quilon	Quilon	330	2579	7.815	2529	7664
4 Pathanamthitta	Pathanamthitta	298	2731	9.164	1277	4285
5 Thiruvalla	Pathanamthitta & Alleppey					
6 Mavchikkara	Alleppey	285	1256	4.407	2152	7551
7 Alleppey	Alleppey					
8 Changanacherry	Kottayam	401	2204	5.496	1958	4883
9 Kottayam	Kottayam					
10 Idukki	Idukki	276	4998	18.109	1118	4051
11 Alwaye	Ernakulam	364	2408	6.615	2924	8033
12 Ernakulam	Ernakulam & Lekshadweep					
13 Iringalakuda	Trichur	483	3032	6.277	2814	5826
14 Trichur	Trichur					
15 Ottappalam	Palghat	439	4480	10.205	2358	5371
16 Palghat	Palghat					
17 Manjeri	Malappuram	397	3548	8.937	2771	6980
18 Tirur	Malappuram					
19 Badagara	Mahe & Kozhikode	4	9	2.250	33	8250
20 Calicut	Kozhikode & Wynad	386	2345	6.083	2590	6710
21 Tellicherry	Wynad & Cannanore					
22 Cannanore	Cannanore & Kasaragod	344	2997	8.712	2227	6474
23 Kasaragod	Kasaragod					
Grand Total: Kerala Circle (Including Mahe & Lekshadweep)		4782	38902	8.135	29441	6157
Kerala State (excluding Mahe & Lekshadweep)		4768	38863	8.151	29358	6157

*Projected population for the year 1989 as per statistics for Planning 1988, Department of Economics & Statistics

Source: The Post Master General, Kerala Circle, Trivandrum.

APPENDIX 7.26

Division-wise Post offices as on 1-4-1989

Name of Division	Head Offices	Sub Offices		Branch Offices	Mobile Post Offices	Total
		Departmental	Extra Departmental			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
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. Alleppey	3	65	44	57	..	169
7. Thiruvalla	2	58	29	54	..	143
8. Changanacherry	2	46	12	92	..	152
9. Kottayam	3	80	44	137	..	264
10. Idukki	2	52	13	203	..	270
11. Ernakulam	2	76	8	57	..	143
12. Alwaye	3	67	34	131	..	235
13. Iringalakuda	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. Manjeri	2	44	21	163	..	230
18. Tirur	2	51	23	91	..	167
19. Calicut	2	74	14	199	..	289
20. Badagara	2	41	37	125	..	205
21. Tellicherry	1	43	8	136	..	188
22. Cannanore	2	54	14	98	..	168
23. Kasaragod	2	36	28	182	..	248
Total	50	1417	554	2761	..	4782*

*Total includes post offices in Mahe and Lakshadweep as Mahe comes under Badagara Division and Lakshadweep comes under Ernakulam Division.

Source: The post Master General, Kerala Circle, Trivandrum.

APPENDIX—7.27

Statistics relating to Telephone system in Kerala for the years 1988 and 1989

Secondary switching area (SSA)	As on 31st March											
	No. of exchanges		Total Equipped capacity		Total working connections		Total applications in wait list		Public Call Offices			
	1988	1989	1988	1989	1988	1989	1988	1989	1988		1989	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	handicapped persons	others	handicapped persons	others
1. Alleppey	42	41	11210	12465	10564	11893	4206	5339	2	202	5	194
2. Calicut	94	98	25890	33220	24425	28699	16970	19081	20	411	20	402
3. Cannanore	89	90	20265	24570	18927	23013	13007	15329	8	305	22	273
4. Ernakulam	115	118	42297	48348	39386	45277	19414	20917	69	330	101	346
5. Kottayam	55	56	19680	21125	18653	20119	9973	12189	25	255	40	248
6. Palghat	61	61	10410	11725	9817	11186	3847	4411	1	276	2	293
7. Pathanamthitta	40	40	6545	7720	6245	7341	4695	6028	10	157	12	152
8. Quilon	50	50	13375	14870	12825	13884	5662	6441	23	203	32	204
9. Trichur	44	45	20570	23550	19746	22088	10266	11892	16	253	27	242
10. Trivandrum	31	33	25610	26784	24182	25384	9707	12396	28	344	29	311
Total	621	632	195852	224377	184770	208884	97747	114023	202	2736	290	2665
		(+1.77)		(+12.71)		(+11.54)		(+16.65)		(+43.56)		(-2.60)

Source: Directory of Telecom Services—1988 and 1989.

*The numbers in brackets indicate percentage of increase/decrease over the previous year.

APPENDIX—7.28

Income and Expenditure of the Kerala Tourism Development Corporation and Accommodation details in the Hotels of KTDC 1988-89

Name of hotel Units	No. of beds available	Total number of visitors			Annual occupancy ratio	Annual income Rs. in lakhs	Annual expenditure (Rs. in lakhs)		
		Domestic	Foreigners	Occupancy ratio			Administra- tion	Operating	Total
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1. Mascot Hotel	84	3566	1125	30.06	59.39	48.88	21.78	70.66	
2. Hotel Sumudra	100	5563	3934	30.00	20.09	11.45	3.38	14.83	
3. Hotel Chaithram	176	23874	675	63.56	44.49	26.08	11.56	37.64	
4. Bolgaty palace hotel	22	977	1277	45.03	12.67	8.83	4.35	13.18	
5. Aranya Nivas hotel	72	4778	5536	45.43	41.69	24.66	8.08	32.74	
6. Periyar House	102	14112	2569	60.41	13.51	7.61	3.33	10.94	
7. Guruvayoor Tourist Bungalow	90	11675	..	37.70	8.25	6.51	3.17	9.68	
8. Mangalya Guruvayoor	40	..	..	..	19.91	10.09	11.12	21.21
9. Garden House	34	5071	..	40.00	4.20	3.84	1.14	4.98	
10. Kumarakom Tourist Complex	8	680	121	25.94	2.94	2.69	0.83	3.52	
11. Hotel Sabala Kuttikanam	..	..	..	..	..	..	..	..
Total	728	70296	15237	..	227.14	150.64	68.74	219.38	

APPENDIX B.1 •

Value of Trade Handled through Cochin Port from 1979-80 to 1988-89

(Rs. in Crores)

Class of Trade	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<i>Imports</i>										
Foreign merchandise from foreign Ports	617.25	759.44	850.15	929.84	561.74	367.95	503.32	274.80	379.50	469.31
Indian merchandise from Indian Ports	30.30	27.11	30.02	122.39	177.84	180.21	297.69	361.14	274.14	297.73
Foreign merchandise from Indian Ports	..	..	..	..	..	..	..	..	..	..
Total Imports	647.55	786.55	880.17	1052.23	739.57	548.16	801.01	635.94	633.64	767.04
<i>Exports:</i>										
Indian merchandise to foreign Ports	554.22	511.17	574.14	669.11	660.95	870.05	839.32	1178.84	1033.71	1080.83
Foreign merchandise re-exported to foreign Ports	..	..	..	..	..	..	..	..	..	..
Indian merchandise to Indian Ports	24.22	43.03	46.70	29.65	24.90	13.20	40.33	92.58	95.91	119.38
Foreign merchandise to Indian Ports	..	..	..	..	..	..	..	..	..	..
Total Exports	578.44	554.20	620.84	698.76	685.85	883.25	879.65	1271.42	1129.62	1200.21
Total Trade	1225.99	1340.75	1501.01	1750.99	1425.42	1431.41	1680.66	1907.36	1783.26	1967.25

Source:—Administration Report 1988-89, Cochin Port Trust.

APPENDIX 8.2

Commodity-wise Distribution of Exports through Cochin Port from 1979-80 to 1988-89

(Tonnes)

Sl.No.	Commodities	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
1.	Coir Products	57299	29387	31361	30070	28474	27083	25795	24677	25393	24116
2.	Tea	67289	61242	48165	41198	37067	57585	26178	22307	15371	22884
3.	Rubber & Rubber Products	124	784	382	455	634	1514	1246	774	1727	2159
4.	Coffee	22422	20839	38544	34365	29216	33477	46456	31056	47158	41248
5.	Coconuts	..	..	..	..	..	..	..	..	..	..
6.	Copra	..	..	..	..	..	..	..	..	..	..
7.	Cashew Kernels	44114	29365	25930	32455	38501	35776	36391	42685	37323	33932
8.	Chemicals	7654	6077	4589	7513	6478	5701	6923	6565	7216	9901
9.	Cotton, raw and waste	4397	4266	4293	4106	12431	3183	90	520	486	..
10.	Cotton piece goods	21482	10384	7713	10502	10571	17130	13020	8401	11296	9885
11.	Rice and other food grains	7774	3303	4074	4282	2105	1043	150	949	959	1405
12.	Pepper	25710	25138	20417	22714	25389	25023	36388	36547	42077	35281
13.	Ginger	8165	4671	3774	3063	3463	4741	5458	2335	..	3882
14.	Cardamon	1000	565	804	450	198	710	817	320	79	120
15.	Turmeric	3724	2469	2068	1877	1301	2151	1827	2189	1690	2034
16.	Coconut	6	..	1	3	3	..	..	..	..	..
17.	Cashew shell Liquid	11163	8629	5244	4579	2233	3493	1633	1888	5372	915
18.	Lemongrass Oil	322	342	142	205	39	227	12	13	34	44
19.	Timber	5239	5254	3939	4283	3505	2440	2304	2492	3930	4170
20.	Marine Products	43916	35507	42546	42422	36780	37413	34944	40235	42516	52810
21.	Oil Cakes	207	..	..	..	..	..	..	..	..	..
22.	Machinery	4958	2843	3430	3403	2856	3079	1899	1909	2188	1587
23.	Iron & Steel	2814	1342	1665	2746	2115	1372	1389	608	971	1184
24.	Mineral sand including granite	6520	8099	4744	3988	4488	6306	5569	1477	4710	1747
25.	Cement	2341	2105	1058	1907	2729	4150	1635	2040	240	975
26.	Miscellaneous	759412	857931	1042985	982198	651518	123507	469071	1053216	964068	1032691
	Total	1108052	1120542	1297868	1238724	902094	397104	719198	1283203	1214704	1282970

Source:—Administration Report 1988-89, Cochin Port Trust.

APPENDIX B.3

Commoditywise Distribution of Imports through Cochin Port from 1979-89 to 1988-89

(Tonnes)

Sl.No.	Commodities	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(11)
1.	Rice and Paddy	..	..	..	..	58958	48804	5265	11	4090	46630
2.	Other grains including pulses & flour	22331	14702	105250	91274	46951	..	..	329	1494	117036
3.	Coal	..	..	..	..	..	..	..	..	..	..
4.	Cashewnuts	16797	6976	16135	886	17736	9813	6959	26529	30499	21847
5.	Machinery	3849	8506	5933	4283	6879	11843	4396	3616	8490	7688
6.	Iron & Steel	79227	16935	19966	57257	50401	8438	3511	5369	17059	6490
7.	Tin Plate	4245	1001	1393	980	959	773	182	524	767	391
8.	Motor vehicles & parts	77	111	178	200	470	875	745	710	445	170
9.	Chemicals & Chemical preparations	3511	909	2854	1187	10734	17315	1671	1409	6789	7796
10.	Oil seeds including Copra & Ground nuts	204	56	111	111	3	381	..	..	6011	319
11.	Drugs & Medicines	6	639	49	26	56	5	..	..	..	..
12.	Paper, Old Newspaper and Stationery	39362	31500	44684	13539	16217	32126	29438	21445	5807	21957
13.	Cotton, raw and waste	..	..	1222	..	..	..	517	..	289	5094
14.	Oilman stores provision & Spices	27622	517	..	..	..	..	334	..	88	..
15.	Sulphur	174501	121502	158230	146381	114245	178646	175830	190570	191164	221184
16.	Rock Phosphate	319947	328735	223979	263682	206833	232376	193249	223030	294597	163956
17.	Fertilizers	128509	154515	101475	74768	81842	146675	221328	151916	110567	138766
18.	Liquid Ammonia	57797	56701	47026	59269	100285	110606	92355	117705	141497	136635
19.	Phosphoric Acid	..	..	..	..	..	115861	86263	172381	128751	163919
20.	Salt	376	..	..	..	..	..	..	..	..	..
21.	Zinc Concentrate	24697	11114	10999	24753	16468	17001	23066	38605	21940	35231
22.	Calcined bauxite	14138	9129	13166	13564	7000	13710	5895	6091	12809	2103
23.	Soda	2253	..	2	..	..	..	3	..	..	231
24.	Candles, Paraffin Wax & Tallow	..	..	10906	14754	9523	..	1030	500	..	..
25.	Cement	155280	156908	128580	197766	118664	22182	27561	26412	..	..
26.	Sugar	..	..	..	..	..	24685	100072	23635	..	..
27.	Miscellaneous	3281789	3191466	3311397	3506777	3237928	2684871	3579343	4559302	4001844	5443715
Total Imports		4956518	4111922	4203535	4471457	4102152	3676985	4559013	5570089	4984997	6541158
Total Traffic (Imports & Exports)		5464570	5232464	5501403	5710181	5004246	4074089	5278211	6853292	6199701	7824128

Source:—Administration Report 1988-89, Cochin Port Trust.

APPENDIX 8.4

Trend in Export of Spices from India during 1985-85 to 1988-89

(Qty. M.T. Value: Rs. Lakhs)

Items	1984-85		1985-86		1986-87		1987-88		1988-89	
	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value	Qty.	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Pepper	25420	6054	37620	17248	37083	20033	41011	24058	41065	18778
Cardamom (Small)	2383	6480	3272	5346	1447	1850	270	340	787	1028
Cardamom (Large)	265	116	383	181	195	97	155	70	431	186
Chillies	8227	967	1241	202	4327	496	6122	833	5424	1206
Ginger	7929	1873	6816	1089	4843	571	2628	489	5198	922
Turmeric	12802	1716	8562	1209	19529	1918	8747	923	16518	1737
Curry Powder	3109	390	2527	366	2712	414	2559	438	2735	504
Seed Spices	21988	1861	10092	914	10706	1165	7709	1056	17535	1837
Other Spices	7301	475	3586	209	1543	172	650	104	4257	251
Oils	28	231	50	492	41	292	46	272	99	268
Oleoresins	303	739	352	996	401	1191	382	1215	448	1562
Total	89155	20902	74501	28252	82827	28199	70279	29808	94437	28279

Source:—Spices Export Review, 1988-89. Spices Board, Ministry of Commerce, Government of India.

APPENDIX 8.5

Detailed Statement of Exports through the Port of Cochin during the Period of 1st January to 31st December 1988

Commodity	Unit	Quantity	Value
(1)	(2)	(3)	(4)
Coir Fibre etc.	M.T.	8	79435
Coir Yarn	M.T.	10775	107479520
Coir Mats & Mattings	M.T.	10846	201312773
Coir Ropes	M.T.	310	342008
Coir Braids & Fenders	M.T.	10	286679
Coir Leaf Baskets	Kgs.	550	15249
Sisal Mattings	Qtls.	12	51924
Aloe Yarn	Qtls.	76	273744
Aloe Products	Qtls.	308	594398
Jute Products	Qtls.	108	420384
Vine Baskets	Kgs.	33247	487925
Palm Leaf Baskets	Kgs.	380	8655
Grass Mats & Mattings	Kgs.	600	9982
Ginger	M.T.	3161	69311688
Ginger Spent etc.	M.T.	58	286173
Black Pepper	M.T.	48179	2496369719
Green Pepper	M.T.	1139	29486214
Pepper atom/Husk etc.	M.T.	414	3824454
Turmeric	M.T.	1441	21822269
Tamarind	Qtls.	312	587287
Ottupuly (Kudampuly)	Qtls.	25	71534
Chillies	M.T.	117	2518144
Cardamoms	M.T.	95	11717562
Kolinjan	Qtls.	35	25295
Cashew Kernels (Plain)	M.T.	27597	2290097271
Cashew Kernels (Roasted & Salted)	M.T.	18	2155369
Groundnut Kernels	M.T.	142	1615827
Coffee	M.T.	41029	1321947332
Tea	M.T.	20741	528672402
Cover Crop Seeds	Kgs.	140640	2393585
Cummin Seeds	Kgs.	2500	101461
Fenugreek Seeds	Kgs.	2000	35871
Rice	M.T.	420	2798351
Food Products	M.T.	146	4806285
Fruits & Products	M.T.	138	1258928
Frozen Shrimps	M.T.	25969	1565244453
Frozen Cuttle Fish	MT.	13323	354819213
Frozen Lobster	M.T.	380	34372648

(1)	(2)	(3)	(4)
Frozen Other Sea Foods	M.T.	3199	68836570
editen Sheep /Buffalo Meat	M.T.	385	10065157
Canned Shrimps	Kgs.	38165	1710085
Dried Shrimps	Kgs.	4850	1155527
Dried /Dehydrated Sea Foods	Kgs.	46980	980514
Sharkfin	Kgs.	328	155429
Crushed Shrimp Head, Shell & Tail etc.	Kgs.	15481	51490
Pickles & Curry Powder	M.T.	770	19622388
Pappadams	M.T.	103	1874032
Curry Leaves	Kgs.	199	10896
Corn	Kgs.	5104	21849
Vegetables	Kgs.	89804	440729
Ossein	M.T.	3716	68552261
Cotton Piece Goods	Sq. m.	19591052	193637492
Cotton/Polyster Yarn/thread etc.	M.T.	5646	376533449
Cotton Made-up	M.T.	5176	514926674
Cotton Dhurries /Floor Coverings	M.T.	126	8241039
Cotton Napkins	M.T.	55	2747980
Cotton Carded Weaving Cheese	Qlb.	140	465851
Absorbant Cotton	Kgs.	4670	142000
Cotton bandages	Kgs.	6762	538363
Silk Fabrics	Kgs.	296	80401
Nylon Fishing Nets	Kgs.	31160	2161391
Woollen Druggets	Kgs.	1573	283529
Human Hair	Kgs.	478	141309
Goat Hair	Qlb.	8284	4396628
Buffalo Hair	Qlb.	120	74844
Plastic Goods	Kgs.	4200	370000
Plastic Film Capacitors.	Kgs.	52	23987
Beedies	Kgs.	9400	934379
Cashew Shell Liquid	M.T.	1360	10287720
Petroleum Products (Naphtha,	M.T.	6840	143713591
Oleoresin of Goods	Kgs.	375828	122010462
Sandalwood Oil	Kgs.	250	586337
L.G. Oil	Kgs.	46540	8629170
Centronilla Oil	Kgs.	5000	591617
Calotropia	Kgs.	2989	371395
Cox Comp	Kg.	1700	143683
Eucaliptus	Kgs.	500	37199
Litsea Tarpenses	Kgs.	500	45627
Caliber Dragees	Kgs.	55	24504

(1)	(2)	(3)	(4)
Olibanam Resinded	Kgs.	250	44347
Liquid Nitrogen (Damaged)	Kgs.	200	45000
Other Oil	Kgs.	24122	11044283
Currium Hydrate	Kgs.	19000	497573
Cholopropamide	Kgs.	12500	5023584
Ferric Oxide	Kgs.	490	4900
Tolbutamide	Kgs.	39000	5328333
Nuxvomica Alkaloids	Kgs.	4728	2948607
Strychimine Alkaloids	Kgs.	568	327052
Samarium Concentrate	Kgs.	3700	6121308
Sodium Chloride (Tablets)	Kgs.	424	28145
Guinine Sulphate	Kgs.	2000	1775000
Hydrogen Peroxide&Potassium Permagnate	Kgs.	1135	78664
Ingredonts for Ice Creams	Kgs.	178	30205
Globe amarnath (Cut Flowers)	Kgs.	44968	3823988
Insecticides	M.T.	54	5000436
Ultramarine Blue	Kgs.	6192	189417
Insense Sticks etc.	Kgs.	50182	2613636
Toilet Soap	Kgs.	297760	10904142
Country Drugs	M.T.	904	7746340
Ayurvedic Medicines	M.T.	61	8341856
Fertilizer	Qtds.	525	205735
Wall Clock & Parts	Kgs.	3688	312310
Wet Grinder	Kgs.	823	27286
Sewing Needles/Pins etc.	Kgs.	422	158622
Metal Manufacturings	M.T.	507	12729942
Machinery	M.T.	696	105767915
Drum Clousers	Kgs.	35808	1039938
Copper Tiny Bits	Kgs.	10625	241730
Bell Metal Oil Lamps	Kgs.	60	6800
Lapping Mandrels	Kgs.	287	66438
Printing Types	Kgs.	715	185660
Vehicles	Nos.	3	120770
Pilfer Proof Caps	Nos.	100000	57600
Steel Wire Rones	M. T.	544	4852596
Dry Van Containers	M.T.	473	6056679
Weaving Loom Accessories	Kgs.	2888	372925
Electronic Goods	Kgs.	3688	230367
Electrical Goods	Kgs.	6205	351352
Dhara Dronis	Kgs.	905	4500
Dampers (CHIA/CHIB of Air Pre-Heater	Kgs.	3420	169935

(1)	(2)	(3)	(4)
Wood Veneers	M.T.	437	33873435
Sandalwood	M.T.	104	6805754
Sandalwood Dust/Flaks etc.	M.T.	81	422811
Rosewood Products	M.T.	628	14788051
Teakwood Products	M.T.	6	276055
Other Wood Products	M.T.	67	1325646
Musical Instruments & Parts etc.	M.T.	502	22246083
Decorated Doors and Building Materials	M.T.	30	1784109
Handicrafts & Curios	M.T.	196	9523894
Toys & Sports Goods	Kgs.	465	51614
Wooden Name Boards	Kgs.	61	18420
Wooden Bobin Pins	Kgs.	50	11456
Bamboo & Products	Kgs.	82	19000
Cane Wooden Walking Sticks	Kgs.	2744	189673
Cane/Wodden Chazirs	Kgs.	84	1600
Pahayra	M.T.	278	3380227
Plywood & Harbdboards	M.T.	2048	6701902
Batteries	M.T.	298	7822487
Rubber (Raw & Mfd)	Kgs.	5280	353368
Tyres, Tubes & Flaps	M.T.	1771	11349596
Dicalcium Phosphate	M.T.	4602	13456276
Silcorn Carbonate	M.T.	121	944538
Rhodamine—B—	Kgs.	1000	142740
Synthetic Organic Dye-Stuff	Kgs.	1000	492517
Synthetic Pick-up Felt	Kgs.	498	270713
Abrasive Products	M.T.	457	2109669
Aluminium Products	M.T.	108	1416088
Polished Marbles	Kgs.	148	2490
China Clay	M.T.	18	40050
Granet Sand	M.T.	3495	2495902
Rare Earth Products	M.T.	4000	69833022
Ilmenite/Silmenite Sand	M.T.	230	423510
Refractions	M.T.	24	940360
Hides & Skins	Kgs.	19153	2532364
Food Wears	Kgs.	1085	177370
Other Leather Products	Kgs.	4007	928691
Books & Stationery	Kgs.	4135	173657
Household Utensils	Kgs.	416	25908
Tooth Paste Powder etc.	Kgs.	288	19000
Laboratory Apparatus	Kgs.	7400	244500
Sundries	..	..	4040
Total			11095814850

Source: Indian Chamber of Commerce and Industry, 1989.

37/1086/MC.

APPENDIX 8.6

Container Traffic Handled from 1984-85 to 1988-89

A. Commodity wise Traffic

(Tonnes)

Sl. No.	Commodities	1984-85	1985-86	1986-87	1987-88	1988-89
(1)		(2)	(3)	(4)	(5)	(6)
<i>Exports</i>						
1.	Cashew Kernels	26629	28412	37508	30257	31977
2.	Chemicals	4496	5719	5034	6027	8713
3.	Coffee	17452	24435	21090	28416	23678
4.	Coir Products	22757	22182	20466	21279	21826
5.	Fish	25523	25806	27076	25975	44335
6.	Ginger	2082	2009	1439	996	1841
7.	Pepper	4172	20137	18418	17808	19744
8.	C.P. Goods	12650	11815	7300	11261	9950
9.	Tea	18292	7388	4959	2981	7274
10.	Turmeric	995	1334	1718	1273	2004
11.	Rubber & Rubber Products	39	345	597	1508	597
12.	Miscellaneous	29424	28880	29294	33135	24569
	Total	164511	178462	174899	180916	196508
<i>Import</i>						
1.	Wheat	..	2557	..	..	..
2.	Chemicals	1097	761	798	5219	7020
3.	Machinery	2249	1865	1287	2417	1972
4.	Miscellaneous	19352	37333	34590	36956	34197
	Total	22698	42516	36675	44592	43189
	Grand Total	187209	220978	211574	225508	239697

Source: Administration Report 1988-89, Cochin Port Trust.

APPENDIX 8.7

Product wise Distribution of Approved units in the Cochin Export Processing Zone

Sl. No.	Product Category	No. of Units
1.	Rubber Gloves	23
2.	Gem & Jewellery	5
3.	Wood & Plywood industries	3
4.	Ready made garments	3
5.	Perfumes & Perfumery compounds	3
6.	Fish net	2
7.	Engineering goods	2
8.	Electronics	2
9.	Food Packing containers	2
10.	Bio-tech	1
11.	Medical Equipments	1
12.	Cattle Feed	1
13.	Spices	1
14.	Chemicals	1
15.	Food Products	1
	Total	51

APPENDIX 9.1

Educational Institutions—District-wise—1988-89 (School Education)

Name of District	L.P.Schools			U.P. Schools			High Schools			Total						
	Govt.	Private		Govt.	Private		Govt.	Private		Govt.	Private					
	(2)	PA	PUA	(6)	PA	PUA	(10)	PA	PUA	(14)	PA	PUA				
(1)	(3)	(4)*	(5)	(7)	(8)	(9)	(11)	(12)	(13)	(15)	(16)	(17)				
1. Trivandrum	306	182	17	505	100	105	7	212	115	94	17	226	521	381	41	948
2. Quilon	282	191	10	484	59	143	7	209	78	125	6	204	415	459	23	897
3. Pathanamthitta	172	243	14	429	42	84	8	134	47	113	5	165	261	440	27	728
4. Alleppey	201	199	15	415	68	78	2	148	56	126	4	186	325	403	21	749
5. Kottayam	177	280	23	480	66	130	3	199	58	166	12	236	301	576	38	915
6. Idukki	73	141	3	217	46	63	4	113	53	70	6	129	172	274	13	459
7. Ernakulam	198	280	18	496	88	101	15	204	85	173	23	281	371	554	56	981
8. Trichur	126	399	9	534	53	166	7	226	75	148	13	236	254	713	29	996
9. Palghat	195	352	10	557	55	159	6	220	56	74	8	138	306	385	24	915
10. Malappuram	344	478	4	826	108	225	4	337	81	73	5	159	333	776	13	1322
11. Kozhikode	188	538	2	728	77	241	7	325	64	94	7	165	329	873	16	1218
12. Wayanad	70	52	5	127	33	40	1	74	33	22	2	57	136	114	8	258
13. Cannanore	129	623	5	757	68	278	..	346	80	71	1	152	277	972	6	1258
14. Kasaragode	145	115	4	264	70	73	..	143	64	33	1	98	279	221	5	505
Total	2607	4073	139	6819	933	1886	71	2890	940	1382	110	2432	4480	7941	320	12141

PA— Private Aided

PUA—Private Unaided

Sources: Directorate of Public Instruction

APPENDIX 9.2

List of Unconomic Schools In Kerala—Districtwise for the year 1988-89

District	Government	Aided	Total
(1)	(2)	(3)	(4)
1. Trivandrum	28	14	42
2. Quilon	13	14	27
3. Pathanamthitta	39	89	128
4. Alleppey	36	24	60
5. Kottayam	45	61	106
6. Idukki	29	15	44
7. Ernakulam	25	29	54
8. Trichur	14	32	46
9. Palghat	12	11	23
10. Malappuram	8	4	12
11. Kozhikode	20	49	69
12. Wynad	9	..	9
13. Cannanore	49	140	189
14. Kasaragode	14	18	32
Total	335	300	635

Sources: Directorate of Public Instruction.

APPENDIX 9.3

Number of Students—Rural/Urban Areas—School-wise during 1988-89

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	751233	712718	1463951	92968	92884	185852	844201	805602	1649803
U. P. Schools	748750	700887	1449637	87894	77014	164908	836644	777901	1614545
High School	1077374	1020100	2097474	220246	250200	470446	1297620	1270300	2567920
B. T. S.	5581	5954	11535	4359	3789	8148	9940	9743	19683
All Students	2582938	2439659	5022597	405467	423887	829354	2988405	2863546	5851951

Source: Directorate of Public Instruction.

APPENDIX 9.4

Standard-wise strength of Students (1988-89)

Standards	Govt. Schools		Private Aided Schools		Private Unaided School			Total	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
I	127061	121085	174370	168350	9366	8410	310797	297845	608642
II	142168	133253	186327	176748	8838	8082	337333	318083	655416
III	141733	133610	194947	185097	8304	7682	344984	326389	671373
IV	140830	131911	190596	181626	8121	7503	339547	321040	660587
V	119496	111220	199082	189545	7012	5835	325590	306600	632190
VI	113559	105717	192179	184009	6748	5335	312486	295061	607547
VII	112396	104403	193512	186087	6578	5130	312486	295620	608106
VIII	108838	103187	155729	152688	5975	4980	270542	260885	531397
IX	97630	93523	143515	146590	5701	4959	246846	245072	491918
X	74040	75317	109115	117409	4639	4255	187794	196981	384775
Total	1177751	1118226	1739372	1688149	71282	62171	2988405	2863546	5851951

Source: Directorate of Public Instruction

Annex 9.5

Details of Teachers—Section-wise (Number of teachers)

Category of Schools	1987-88			1988-89			Total No. of Teachers							
	Government		Private	Government		Private	Trd.	Untrd.	Total					
	Trd.	Untrd.	Trd.	Untrd.	Trd.	Untrd.								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
I. High School Section	21619	145	21764	34544	135	34679	56449	21269	113	21382	34770	106	34876	56258
II. Upper Primary Section	20992	712	21704	36701	3245	39946	61650	20914	655	21569	96052	3188	39190	60759
III. Lower Primary Section	28076	1113	29189	43510	1607	45117	74306	27637	1024	28661	42575	1572	44147	72808
IV. Training Section	197	-	197	296	-	296	493	192	-	192	305	-	305	497
Attached UP Section	181	-	181	152	-	154	335	175	-	175	152	-	152	327
Attached LP Section	194	-	194	119	-	113	307	183	2	185	101	2	103	288
Grand Total	71259	1970	73229	115316	4989	120305	193534	70370	1794	72164	113955	4818	118773	190937

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. Pathanamthitta	16	1	10	27
4. Alleppey	20	7	11	38
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. Wayanad	19	21	20	60
13. Cannanore	54	41	55	150
14. Kasaragod	33	38	45	116
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
1988-89	2175	1444	3619

Source: Directorate of Vocational Higher Secondary Education.

Appendix 9.8

Number of students appeared and passed in S.S.L.C. Examination from March 1980 to September 1988

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	184441	40.55	41.39	39.5
	September	17564	131343	30707	1991	1393	3384	11.34	10.60	11.0
1982	March	252466	240300	492966	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	250608	495860	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
1988	March	206188	234724	440912	109655	107592	217247	53.18	45.84	49.3
	September	45083	47378	92461	22416	23375	45791	49.72	49.34	49.5

Source: Directorate of Public Instruction

Appendix 9.9

Number of Arts and Science Colleges in Kerala (1988-89)

Sl. No.	District	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.	Wynad	2	2	4
13.	Cannanore	2	7	9
14.	Kasargod	3	1	4
Total		40	132	172

Source: Directorate of Collegiate Education.

APPENDIX 9.10

Subject-wise Intake (sanctioned) in Universities 1988-89

Subject	B. A.				M.A.			
	Sanctioned intake in the Universities				Sanctioned intake in Universities			
	Kerala	Mahatma Gandhi	Calicut	Total	Kerala	Mahatma Gandhi	Calicut	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Economics	2157	2197	2035	6389	205	266	222	693
2. History	1235	826	1231	3292	55	56	57	168
3. Politics	549	469	160	1178	25	56	25	106
4. Psychology	79	30	..	109	..	..	..	..
5. Islamic History	119	30	147	296	..	14	15	29
6. Sociology	67	180	130	377	20	75	8	103
7. M. S. W.	..	..	..	..	25	25	..	50
8. Philosophy	242	149	136	527	45	18	..	63
9. Geography	30	..	20	50	10	..	6	16
10. English	834	879	635	2348	151	156	120	427
11. Music	44	..	10	54	10	..	6	16
12. Malayalam	784	540	445	1769	65	79	47	191
13. Hindi	398	245	246	889	65	69	12	146
14. Tamil	10	..	34	44	..	..	15	15
15. Arabic	92	30	79	201	10	6	27	43
16. Kannada	..	..	20	20	..	..	6	6
17. Sanskrit	225	75	124	429	50	36	15	101
Total	6865	5650	5452	17967	736	856	581	2173

Subject	B. Sc.				M. Sc.			
	Sanctioned intake				Sanctioned intake			
	Kerala	Mahatma Gandhi	Calicut	Total	Kerala	Mahatma Gandhi	Calicut	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Mathematics	1568	1745	1468	4781	185	282	200	667
2. Statistics	80	32	96	208	..	51	42	93
3. Physics	1084	1364	963	3411	75	130	30	235
4. Chemistry	1222	1321	1101	3644	75	185	74	334
5. Zoology	1012	1168	968	3148	82	111	86	279
6. Botany	1134	1149	792	3075	91	151	56	298
7. Home Science	145	188	56	389	16	12	..	28
8. Geology	84	10	46	140	..	6	6	12
Total	6329	6977	5490	18796	524	928	494	1946
Commerce	1765	B. Com. 1657	1790	5212	176	281	M. Com. 252	709
Grand Total	14959	14284	12732	41975	1436	2065	1327	4828

APPENDIX 9.11

Year-wise break up of Private Registration

Year	Kerala University						Calicut University							
	Pre-Degree	B.A.	M.A.	B.Com	M.Com.	Total	Pre-Degree	B.A.	B.Sc.	B.Com.	M.A.	M.Sc.	M.Com.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1986	32250	3900	3925	6900	1850	51825	33792	6081	489	4500	1204	527	370	46963
1987	38000	2900	3800	7200	1500	53400	38206	5500	650	4079	1282	5415	421	50682
1988	26841	4697	5120	8734	1575	46967	39960	7650	852	6086	1464	607	669	57288
1989	26440	3250	5325	6170	2000	43185	48967	11700	1137	8066	2022	738	665	73295

APPENDIX 9.12

Number of Engineering Colleges, students and Teachers—1987-88 & 1988-89

Type of Institutions	No. of Institutions		Enrolment					Teachers						
	1987-88	1988-89	Boya	Girls	Total	Boys	Girls	Total	Men	Women	Total	Men	Women	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Government	3	3	3905	821	4726	3886	818	4704	375	84	459	376	84	460
Private	3	3	3846	968	4814	3393	904	4297	333	113	446	333	113	446
Quasi Government	1	1	1111	293	1394	1155	278	1433	135	20	155	134	20	154
Total	7	7	8862	2072	10934	8434	2000	10434	843	217	1060	843	217	1060

Source: Directorate of Technical Education.

APPENDIX 9.13

Number of Polytechnics and Technical High Schools in Kerala

Sl. No.	District	Polytechnics						Technical High Schools	
		1987-88			1988-89			1987-88	1988-89
		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	2	1	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	4	..	4	3	3
12.	Wyanad	1	..	1	1	..	1	2	2
13.	Cannanore	1	..	1	1	..	1	4	4
14.	Kasaragode	..	1	1	1	1	2	2	2
Total		19	6	25	22	6	28	47	47

Source: Directorate of Technical Education

APPENDIX 9.14

Students and Staff Strength in Polytechnics

Type of Institution	Students						Teachers					
	1987-88			1988-89			1987-88			1988-89		
	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	5548	1936	7484	7789	2632	10421	715	183	898	720	185	905
Private	2494	449	2943	3265	539	3804	349	48	397	350	52	402
Total	8042	2385	10427	11054	3171	14225	1064	231	1295	1070	237	1307

Source: Directorate of Technical Education

APPENDIX 9.15

Student and Staff strength in Technical High Schools

Years	Students			Teachers		
	Boys	Girls	Total	Men	Women	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1987-88	6405	1246	7651	629	166	795
1988-89	6813	1020	7833	625	170	795

APPENDIX 9.16

Intake and outturn in Engineering Colleges, Polytechnics and Technical High Schools

Year	Engineering Colleges				Polytechnics				Technical High School			
	No. of Institutions	Intake Sanctioned	Actual	Outturn	No. of Institutions	Intake Sanctioned	Actual	Outturn	No. of Institutions	Intake Sanctioned	Actual	Outturn
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1970-71	6	896	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	950	19	2773	2755	1254	25	2000	1726	691
1982-83	6	1960	1952	1009	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	44	2180	1919	1093
1985-86	7	2514	2514	1014	25	3533	3404	2109	44	2480	2310	1074
1986-87	7	2514	2514	2073	25	3583	3404	2200	47	2570	2510	1371
1987-88	7	2524	2524	2104	25	3544	3544	2305	47	2570	2320	1475
1988-89	7	2656	2656	..	28	4231	4231	2436	47	2570	2570	1505

Source: Directorate of Technical Education

APPENDIX 9.17

Course-wise Intake and Out turn in Engineering Colleges at Degree level.

Name of Course	1987-88		1988-89
	Intake	Out-turn	Intake
(1)	(2)	(3)	(4)
1. Civil Engineering	602	592	602
2. Mechanical Engineering	582	620	581
3. Electrical	580	560	550
4. Electronics	300	130	360
5. Chemical Engineering	80	75	80
6. Production cum-Plant Engineering	30	32*	30
7. Instrumentation and Control system	30	31*	32
8. Production Engineering	30	11	30
9. Applied Electronics and Instrumentation	40	15	45
10. Architectures	80	22	80
11. Industrial Engineering	20	16	21
12. Computer Science	20	..	175
14. Production and Management	30	..	30
15. Bio-medical Engineering	..	..	40
Total	2524	2104	2656

*Figure includes out turn of previous year also.

Appendix 9.18

Course-wise Intake in Engineering Colleges at Post Graduate Level

Name of course	1987-88 Intake	1988-89 Intake
(1)	(2)	(3)
1. Civil	37	55
2. Mechanical	42	62
3. Electrical	34	51
4. Electronics and Telecommunication	4	10
5. Chemical Engineering	6	6
Total	123	184

Total and Per Capita State Government Expenditure on Education (a) 1970-71 to 1987-88.
(Revenue and Capital Accounts Combined)

Major States	Total Expenditure (Rs. crores)															per capita (Rs.)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)					
Punjab	30	139	191	217	241	256	360	22	85	114	129	144	153	214						
Kerala	60	217	314	354	425	489	527	28	85	123	139	167	192	207						
Maharashtra	98	382	570	679	795	965	1104	20	61	91	108	127	154	178						
Haryana	18	73	112	135	155	177	224	19	57	87	105	120	138	174						
Gujarat	42	181	299	416	476	471	589	16	53	88	123	140	138	173						
Assam	25	97	191	187	221	306	303	17	49	96	94	111	154	152						
Karnataka	54	173	274	391	382	436	537	18	47	74	89	103	117	144						
West Bengal	70	247	417	449	539	683	788	16	45	76	82	99	125	141						
Andhra Pradesh	62	231	432	478	539	571	743	14	43	81	89	101	107	139						
Tamil Nadu	73	242	385	451	564	612	663	18	50	80	93	117	126	188						
Rajasthan	42	146	250	292	328	377	452	16	43	73	85	96	110	132						
Orissa	24	108	160	184	208	266	305	11	41	60	70	79	101	115						
Madhya Pradesh	49	172	295	341	388	438	555	12	33	57	65	84	89	106						
Uttar Pradesh	75	351	558	684	787	877	981	9	32	50	62	71	79	88						
Bihar	48	236	385	434	538	593	524	9	34	55	62	77	72	75						
Other States																				
Mizoram					21	6	36					420	115	729						
Sikkim		4	7	10	13	15	19		133	239	324	438	504	623						
Arunachal Pradesh						30	36						499	606						
Nagaland	3	13	20	23	32	34	36	59	163	248	288	400	424	513						
Goa						43	44						392	396						
Manipur	5	20	28	33	41	45	53	43	143	202	234	293	321	381						
Tripura		17	30	33	41	54	64		81	144	159	195	257	306						
Himachal Pradesh	4	45	62	71	80	94	129	11	105	143	164	186	210	239						
Meghalaya	2	10	16	19	23	27	36	17	77	121	133	164	153	278						
Jammu & Kashmir	9	44	67	81	93	99	138	20	73	112	137	158	168	234						
All States	793	3,148	5,082	5,902	6,928	7,876	9,231	15	47	74	87	102	116	136						

Appendix 9.20

Medical Institutions and Beds in Kerala—Category-wise—1988-89

District	Hospitals		P.H. Centres including M.C.H. Units		Dispensaries		TB Centres/Clinics		Leprosy control Units	
	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Trivandrum	18	5714	70	296	9	70	1	28	1	..
Quilon	9	1423	59	294	1	15	3	79	3	..
Alleppey	11	3206	61	235	1	..	2	12	1	..
Pathanamthitta	5	491	42	263	1	..	1	..	..	..
Kottayam	13	2295	52	431	1	..	2	48	..	..
Idukki	4	272	33	151	3	26	..	..	..	..
Ernakulam	22	2692	73	515	4	14	4	40	..	..
Trichur	19	3249	76	428	6	..	1	..	1	..
Palghat	9	1142	44	253	9	..	1	54	1	..
Malappuram	7	974	50	212	9	58	2	52	2	..
Kozhikode	10	3943	58	177	2	..	1	..	1	..
Wayanad	3	367	18	62	5	..	..	..	..	..
Cannanore	10	1542	62	216	14	56	1	..	..	..
Kasaragode	3	257	42	153	7	..	1	..	1	..
Total	143	27567	740	3686	72	239	20	313	11	..

Source :- D.H.S.

Appendix 9.20 (Contn)

Medical Institutions and Beds in Kerala—Category wise -1988-89

District	Community Health Centres		Subsidiary Health Centres		Grant-in-aid Institutions		Total	
	No.	Beds	No.	Beds	No.	Beds	No.	Beds
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Trivandrum	4	209	..	..	4	233	107	6550
Quilon	2	42	..	..	3	120	80	1973
Alleppey	1	40	..	..	6	590	83	4043
Pathanamthitta	2	163	..	..	6	345	57	1262
Kottayam	1	232	..	..	6	500	75	3506
Idukki	1	60	14	100	..	..	55	609
Ernakulam	3	129	..	..	4	456	110	3846
Trichur	1	82	..	..	2	170	106	3929
Palghat	1	83	26	173	1	..	92	1705
Malappuram	3	208	29	312	2	..	104	1816
Kozhikode	4	104	..	..	..	..	76	4224
Wayanad	2	117	8	44	..	..	36	590
Cannanore	2	585	..	..	..	..	89	2399
Kasaragode	2	238	..	..	..	..	56	648
Total	29	2292	77	629	34	2374	1126	37100

Appendix 9.21

Statement showing number of Attacks and Deaths due to principal diseases during 1988-89

Sl. No.	Name of disease	Patients treated during			
		1987-88		1988-89	
(1)		Attack	Death	Attack	Death
		(2)	(3)	(4)	(5)
1.	Diphtheria	288	1	59	1
2.	Dysentery	685514	68	88450	278
3.	Whooping Cough	11155	3	9430	3
4.	Gastroenteritis	50340	181	..	..
5.	Tetanus	185	42	176	19
6.	Meningococcal Infection	393	17	..	..
7.	Measles	43028	16	33307	5
8.	Syphilis	1091	-	1074	1
9.	Poliomyelitis	775	65	199	3
10.	Gonococcal Infection	3447	-	5049	..
11.	Tuberculosis	64173	282	84910	354
12.	Rabies	390	40	42	26
13.	Enteric fever	9490	10	8459	8
14.	Chicken Pox	11996	6	-	..
15.	Influenza	811206	1	-	..
16.	Encephalities	2014	99	-	..
17.	Infective Hepatitis	15130	25	9001	28
18.	Acute Respiratory Infection	..	..	1207887	100
19.	All Other Diseases	..	..	11803733	3453

Source: Directorate of Health Services.

APPENDIX 9.22

Details of Personnel (Clinical/Non-Clinical) under the Directorate of Medical Education

Category	Clinical/Non-clinical Personnel		
	1987	1988	1989
(1)	(2)	(3)	(4)
1. Director and Professor	12	12	12
2. Professor	46	46	46
3. Associate Professor	54	55	55
4. Assistant Professor	106	112	112
5. Tutor	241	247	247
<i>Nursing Education</i>			
6. Director	1	4	4
7. Professor	3	3	3
8. Associate Professor	7	12	12
9. Assistant Professor	9	22	22
10. Tutor	25	36	36
<i>M.L.T. Course</i>			
11. Director		1	1
12. Assistant Professor		3	5
13. Tutor	4	2	2
14. Tutor Technician	3	4	14
<i>Dental</i>			
15. Director and Professor	2	2	2
16. Professor	12	15	15
17. Associate Professor	4	4	4
18. Assistant Professor	23	24	24
19. Tutor	35	39	39

Source: Directorate of Medical Education

APPENDIX 9.23

Courses conducted in the Medical Colleges with respective number of intake—1988-89

Course	Number of intake in Medical Colleges				
	Trivandrum	Calicut	Kottayam	Alleppey	Trichur
(1)	(2)	(3)	(4)	(5)	(6)
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	..	..	..	..
Certificate course in Nursing	30	30	..	..	..
M.Sc. (Nursing)	4	..	..	..	..

Source: DME.

APPENDIX 9.24

Description of various Certificate/Diploma courses and admission in the different Medical Colleges, Kerala—1988-89

Name of course (Para medical)	Number of intake in Medical Colleges					
	Trivandrum	Calicut	Kottayam	Alleppey	Trichur	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. MLT Certificate	100	80	30	30	15	255
2. CRA certificate	40	30	15	10	15	110
3. Ophthalmic-Ast. Certificate	30	20	15	5	5	75
4. D. Pharm (1 year) Diploma	50	..	30	35	..	115
5. D. Pharm (2 years)	..	60	..	..	..	60
6. Dental Mechanic Certificate Course	15	5	..	..	..	20
7. Certificate Course in Nursing	30	30	..	..	..	60
Total	265	225	90	80	35	695

APPENDIX 9.25

District-wise Distribution of Institutions, Beds and Patients Treated under Ayurveda during 1988-89

District	No. of Hospitals	No. of Beds	No. of Dispensaries	Total No. of Institutions	Number of Patients treated		
					Inpatients	Outpatients	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	12	225	47	59	4081	6,56,781	6,60,862
Quilon	9	170	35	44	1888	2,95,938	2,97,826
Alleppey	10	180	34	44	1668	4,42,440	4,44,108
Pathanamthitta	4	80	22	26	797	1,61,843	1,62,640
Kottayam	8	150	24	32	1385	3,05,748	3,07,133
Idukki	3	90	21	24	1387	1,70,901	1,72,288
Ernakulam	11	180	45	56	2229	5,50,344	5,52,573
Trichur	14	223	63	77	2853	5,24,940	5,27,793
Palghat	5	120	45	50	2253	1,73,632	1,75,885
Malappuram	10	200	50	60	1591	3,31,848	3,33,439
Kozhikode	5	100	32	37	1135	1,81,043	1,82,178
Wayanad	1	50	15	16	284	35,609	35,893
Cannanore	5	111	37	42	582	1,92,628	1,93,210
Kasaragode	4	50	28	32	538	96,120	96,658
Total	101	1929	498	599	22671	41,19,815	41,42,486

Source: ISM Directorate
37/1086/MC.

APPENDIX 9.26

District-wise Distribution of Institutions, Beds and Patients treated under Homoeopathy during 1987-88 and 1988-89

District	No. of Hospitals		No. of Beds		No. of Dispensaries		Total number of Institutions		No. of patients treated during 1988-89		
	1987-88	1988-89	1987-88	1988-89	1987-88	1988-89	1987-88	1988-89	Inpatients	Outpatients	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Trivandrum	4	4	150	150	26	26	30	30	4611	10,65,520	10,70,131
Quilon	1	1	25	25	19	19	20	20	328	11,31,976	11,32,304
Pathanamthitta	..	..	..	..	8	9	8	9	..	1,64,526	1,64,526
Alleppey	3	3	75	75	21	21	24	24	953	13,75,668	13,76,621
Kottayam	3	3	140	140	19	21	22	24	1733	8,91,917	8,93,650
Idukki	2	2	50	50	17	17	19	19	5747	4,63,911	4,69,658
Ernakulam	2	2	50	50	31	32	33	34	925	12,12,243	12,13,168
Trichur	1	1	25	25	20	20	21	21	488	5,56,428	5,56,916
Palghat	1	1	25	25	16	16	17	17	339	3,71,323	3,71,662
Malappuram	2	2	50	50	25	26	27	28	416	7,96,905	7,97,321
Kozhikode	1	1	25	25	21	22	22	23	532	8,48,142	8,48,674
Wayanad	1	1	25	25	6	6	7	7	..	1,13,755	1,13,755
Cannanore	1	1	25	25	18	18	19	19	151	5,16,645	5,16,796
Kasaragode	2	2	50	50	8	9	10	11	388	1,74,136	1,74,524
Total	24	24	715	715	255	262	279	286	16611	96,83,095	96,99,706

Source: Directorate of Homoeopathy

APPENDIX 9.27

District-wise Details on Family Welfare Programme—1988-89

District	Vasectomy	P.P.S.		Total		I.U.D.		Nirod-supplied		Oral Pills	Induced Abortion
		P.P.S.	Minilap	Lapros-copic	(col. 3 to 5)	L.L.	Cu't ^e	Total (col. 7 and 8)	C.C.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Trivandrum		236	15,742	4,755	2,465	22,962	..	11,428	11,428	13,51,740	41,856
Quilon		83	11,725	1,743	3,258	16,726	..	8,082	8,082	12,93,796	45,585
Alleppey		1563	6,958	3,612	1,160	11,730	4	9,378	9,382	10,55,968	31,088
Pathanamthitta		81	4,720	798	2,229	7,749	30	5,824	5,854	5,18,495	18,387
Kottayam		490	10,758	657	4,738	16,153	..	11,795	11,795	16,63,404	27,720
Idukki		93	4,133	860	1,489	6,482	..	4,272	4,272	3,65,086	11,523
Ernakulam		392	13,653	385	3,258	17,296	..	9,754	9,754	19,63,941	29,306
Trichur		587	13,996	1,884	3,637	19,517	..	9,534	9,534	15,90,789	31,748
Palghat		96	9,462	814	7,031	17,307	3	9,054	9,057	12,66,057	37,734
Malappuram		184	10,468	2,097	4,117	16,682	..	10,622	10,622	18,31,609	77,576
Kozhikode		1508	17,291	2,971	3,052	23,314	..	13,116	13,116	14,29,398	51,780
Wayanad		246	2,989	324	1,616	4,929	..	3,681	3,681	7,68,439	15,264
Cannanore		389	10,418	687	3733	14,838	2	6,640	6,642	12,20,100	39,620
Kasaragode		149	3,593	78	2,006	5,677	..	2,316	2,316	9,50,125	29,050
Total		6097	135,906	21,665	43,789	201,360	39	115,496	115,535	172,68,947	488,237

Source: D.H.S.

APPENDIX 9.28

Target and Achievement of Family Welfare Programme

Item	Unit	Target for 1988-89	Achievement upto 3/89
(1)	(2)	(3)	(4)
1. Family Welfare Programme			
(a) Sterilisation (Vasectomy-Tubectomy)	No.	2,00,000	2,07,457
(b) IUD Insertion	"	1,15,000	1,15,533
(c) CC Users	"	2,71,000	2,38,830
(d) OP Users	"	34,500	37,556
(e) P.H. Centres	"	200	127
(f) Sub Centres	"	500	500
2. National TB Control Programme			
(a) No. of TB cases detected	Persons	45,000	36,131
(b) No. of sputum examination	"	1,07,400	83,936
3. National Leprosy Eradication Programme			
(a) No. of new cases recorded	"	10,000	8,836
(b) No. of cases brought under treatment	"	10,000	7,220
(c) No. of cases detected	"	7,000	8750
4. National Programme for Control of Blindness			
(a) No. of cataract operations	"	50,000	17,845
(b) No. of other operations	"	N.A.	N.A.
5. MCH Programmes			
(a) Immunisation programme			
(i) D.P.T.*	"	6,03,000	5,63,388
(ii) D.T.	"	4,00,000	2,79,279
(iii) T.T. (Pregnant women)	"	6,21,000	6,57,321
(b) Prophylaxis against Nutritional Anaemia			
(i) Women	"	6,80,000	7,13,995
(ii) Children	"	6,91,000	7,56,483
(c) Blindness due to Vitamin-A deficiency	"	16,00,000	13,50,369

* Target and Achievement of children below one year.
Source: DHS.

APPENDIX 9.29

Total and Per Capita State Government Expenditure on Health 1970-71 to 1987-88 (Revenue and Capital Accounts Combined)

(1)	Total Expenditure (Rs. Crores)															Per Capita Expenditure (Rs.)				
	1970-71	1980-81	1983-84	1984-85	1985-86	1986-87	1987-88	1970-71	1980-81	1983-84	1984-85	1985-86	1986-87	1987-88	(11)	(12)	(13)	(14)	(15)	
Rajasthan	21	114	203	249	109	311	397	8	33	59	73	32	90	118						
Punjab	10	53	85	93	90	127	162	7	32	51	56	54	76	96						
Gujarat	20	88	154	185	120	268	305	8	26	45	54	35	78	90						
Kerala	15	82	114	147	127	184	219	7	32	45	58	50	72	86						
Maharashtra	38	171	343	380	478	531	541	8	27	55	61	76	85	86						
Haryana	7	39	75	94	58	94	110	7	31	58	73	45	73	85						
Karnataka	16	71	115	149	150	235	268	5	19	31	40	40	63	72						
Assam	7	40	46	104	71	100	143	5	20	23	52	36	50	72						
Madhya Pradesh	20	120	194	210	150	300	377	5	23	37	40	29	58	72						
Tamil Nadu	27	111	280	236	275	296	324	7	23	58	49	57	61	67						
Andhra Pradesh	26	123	208	227	189	293	358	6	23	39	43	35	55	67						
Orissa	11	59	104	106	75	134	166	5	22	39	40	29	51	63						
West Bengal	27	141	208	225	209	283	306	6	26	38	41	38	52	56						
Uttar Pradesh	28	157	316	372	316	446	554	3	14	29	34	28	40	50						
Bihar	16	98	147	164	149	272	260	3	14	21	24	21	39	37						
<u>Other States</u>																				
Nagaland	2	16	25	22	32	39	49	36	197	313	276	400	489	617						
Mizoram	..	..	..	..	9	3	31	..	..	..	..	180	66	615					
Sikkim	..	2	4	4	4	7	15	..	81	138	135	193	249	495						
Arunachal Pradesh	..	..	..	..	..	19	25	..	..	..	..	..	323	424					
Meghalaya	1	16	29	23	15	27	41	11	120	222	166	107	195	295						
Goa	..	..	..	..	..	31	31	..	..	..	..	..	281	286					
Jammu & Kashmir	5	51	83	98	114	126	144	10	84	139	165	193	214	244						
Manipur	1	14	16	19	12	35	31	10	98	116	135	86	249	221						
Uttaranchal Pradesh	1	36	50	59	36	75	95	3	84	116	139	84	175	220						
Tripura	..	6	13	14	13	23	31	..	31	63	64	62	109	148						
Total: All India	299	1,608	2,843	3,181	2,800	4,259	4,985	6	24	41	47	41	63	74						

Source: Basic Statistics relating to Indian Economy September—1989—CMIE

Urban Population Covered under Water Supply and Sanitation as on March-end 1987

States	Urban population		Water supply		Sanitation	
	as on March 1987 (^{'000})	Population (^{'000})	%	Population (^{'000})	%	
(1)	(2)	(3)	(4)	(5)	(6)	
<i>Major States</i>						
Andhra Pradesh	14,900	9,301	62.4	2,376	15.9	
Assam	2,347	881	37.5	369	15.7	
Bihar	9,669	6,148	63.6	3,712	38.4	
Gujarat	13,146	12,272	93.4	10,415	79.2	
Haryana	3,211	3,211	100.0	1,135	35.3	
Karnataka	2,742	12,579	98.7	7628	59.9	
Kerala	5,495	3,606	65.6	1,627	29.6	
Madhya Pradesh	12,478	10,043	80.5	1,214	9.7	
Maharashtra	26,027	25,951	99.7	16,196	62.2	
Orissa	3573	1,326	37.1	959	26.8	
Punjab	5,308	3,778	71.2	2,709	51.0	
Rajasthan	7,667	4,181	54.5	695	9.1	
Tamil Nadu	17,664	15,534	88.2	8,344	47.4	
Uttar Pradesh	21,687	15,029	69.3	3,034	13.9	
West Bengal	16,221	11,078	68.3	6,424	39.6	
<i>Other States</i>						
Arunachal Pradesh	120	120	100.0	120	100.0	
Goa	480	391	81.5	136	28.3	
Himachal Pradesh	393	365	92.9	73	18.6	
Jammu & Kashmir	1,615	1,334	95.0	111	6.9	
Manipur	530	400	75.5	50	9.4	
Meghalaya	287	142	49.5	60	20.9	
Mizoram	140	26	18.6	2	1.4	
Nagaland	161	32	19.9	10	6.2	
Sikkim	146	98	67.1	38	26.0	
Tripura	3,344	183	53.2	39	11.3	
<i>Union Territories</i>						
Andaman	69	69	100.0	69	100.0	
Chandigarh	613	613	100.0	613	100.0	
Dadra & Nagar Haveli	19	14	73.7	7	36.8	
Daman & Diu	..	..	..	..	..
Delhi	1,166	6,950	97.0	6,995	86.4	
Lakshadweep	..	..	..	..	..
Pondicherry	373	373	100.0	144	38.9	
All India	184,331	146,228	79.2	74,505	40.4	

Source: Basic Statistics relating to Indian Economy, Vol. 2, States, September 1989.

APPENDIX 9.31

Rural Water Supply 1 April 1988

States	Total number of inhabited villages 1981	Problem villages as on 1 April 1985	Problem villages covered during 1985-'88	Problem villages uncovered as on 1 April 1988	Col. 4 as % of Col. 1	Percentage of rural population covered as on March-end 1985 under potable water supply
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Major States</i>						
Assam	21,995	9,570	5,027	4543	20.1	71.4
Tamil Nadu	15,831	4,882	1,957	2,925	18.5	46.8
Punjab	12,342	2,254	658	1,596	12.9	23.8
Haryana	6,745	2,314	1,450	864	12.8	57.8
Orissa	46,553	14,443	9,080	5,363	11.5	82.0
Karnataka	27,028	5,410	2,391	3,079	11.4	82.9
Uttar Pradesh	1,12,566	43,906	31,738	12,168	10.8	28.3
Gujarat	18,114	4,911	73281	1630	9.0	79.7
Rajasthan	34,968	7,310	4,336	2,974	8.5	58.7
Maharashtra	39,354	5,174	3,350	1,530	3.9	51.0
Madhya Pradesh	71,352	14,714	12,214	2,500	3.5	62.7
Bihar	67,546	9,199	7,476	1,723	2.6	77.8
Kerala	1,219	88	61	27	2.2	40.8
Andhra Pradesh	27,379	15,834	15,749	85	0.3	71.4
West Bengal	38,024	5,930	5,930	..	..	52.5
<i>Other States</i>						
Mizoram	721	595	236	359	49.8	64.3
Meghalaya	4,902	3,658	1,305	2,353	48.0	35.1
Nagaland	1,112	623	260	363	32.6	65.9
Jammu & Kashmir	6,477	2,959	1,340	1,619	25.0	62.7
Manipur	2,035	862	411	451	22.2	67.6
Sikkim	440	121	59	62	14.1	43.3
Himachal Pradesh	16,807	3,539	1,580	1,959	11.7	59.5
Goa (Incl. Daman & Diu)	412	38	25	13	3.2	44.2
Tripura	856	2,893	1,592	1,301	..	65.6
Arunachal Pradesh	3,257	391	391	..	..	90.2
<i>Union Territories</i>						
Pondicherry	291	53	53	..	..	100.0
Andaman	491	40	40	..	..	94.7
Delhi	214	..	..	..	..	100.0
Chandigarh	24	..	..	..	..	52.6
Dadra & Nagar Haveli	70	..	..	..	..	84.1
Lakshadweep	7	11	11	..	..	45.8
All India	579,132	161,722	111,941	49,781	8.6	56.2

Source: Basic Statistics relating to Indian Economy, Vol. 2, States, September, 1989.

Appendix 10.1

Disposal of Cases Relating to Tenancy and Kudikidappu

Sl. No.	Item	Tenancy		Kudikidappu	
		As on 30-11-1988	As on 30-11-1989	As on 30-11-1988	As on 30-11-1989
	(1)	(2)	(3)	(4)	(5)
1.	Total number of Applications filed	3885966	3911524	466105	469779
2.	Disposal of cases				
	(i) Allowed	2588901	2604923	284203	286023
	(ii) Rejected	808476	810103	158569	159249
	(iii) Other disposal	476325	484537	20349	20815
	Total	3873702	3899563	463121	466087
3.	Balance of Applications to be disposed of	12264	11961	2984	3692
4.	Number of Certificates of purchase issued	2557962	2569273	271080	272110

Source: Land Board, Kerala

Appendix 10.2

Distribution of Surplus Land

Sl.No.	Item	Unit	As on 30-11-1988	As on 30-11-1989
	(1)	(2)	(3)	(4)
1.	Total Ceiling returns filed	No.	70530	70815
2.	Total Ceiling returns decided	"	69641	69962
3.	Balance to be decided	"	889	853
4.	Area ordered to be surrendered	Acres	160099	163337
5.	Area reduced on orders of High Court	"	32128	31496
6.	Net extent of land ordered for surrender	"	127971	132341
7.	Extent of land taken over	"	91562	92338
8.	Area reconveyed on order of High Court	"	..	..
9.	Net extent taken over	"	91562	92338
10.	Balance extent to be taken over	"	36409	40003
	(i) Covered by stay against taking possession	"	20751	19694
	(ii) Net to be taken over by gift, dispute, vested forest etc.	"	11993	19269
	(iii) Extent available for taking over	"	3665	1040
11.	Surplus land distributed	"	61159	62231
12.	Balance extent taken over pending distribution	"	30403	30107
	(i) Covered by stay against assignment	"	3804	3916
	(ii) Not distributed due to gift, vested forest etc.	"	4706	5239
	(iii) Reserved for public purposes	"	20205	20139
	(iv) Available for distribution	"	1688	813

Source: Land Board, Kerala.

APPENDIX 10.3

Beneficiaries of Surplus Land and Extent Distributed (as on 30-11-1989)

(Acres)

Sl.No.	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	3409	774	..	..	3200	821	6609	1595
3.	Pathanamthitta	330	86	..	..	394	68	724	154
4.	Alleppey	3676	2075	28	4	3914	2229	7618	4308
5.	Kottayam	2381	1239	75	60	2805	1228	5261	2527
6.	Idukki	2186	2026	353	312	2317	2112	4856	4450
7.	Ernakulam	3655	723	38	5	2147	397	5840	1125
8.	Trichur	7045	1383	50	50	11683	2188	18778	3821
9.	Palghat	11679	5455	1190	939	11849	6106	24718	12500
10.	Malappuram	7268	3224	34	12	6739	3826	14041	7082
11.	Kozhikode	3715	1168	240	101	4821	1207	8776	2476
12.	Wyanad	1273	469	2521	1511	2675	1315	6449	3295
13.	Cannanore	3248	2263	1712	1414	7307	5480	12267	9157
14.	Kasaragode	3484	3119	719	644	6449	5601	10652	9364
State:		56346	24333	6960	5052	68620	32846	131926	62231

Source: Land Board, Kerala.

APPENDIX 10.4

District-wise Distribution of Beneficiaries and Area of Poramboke Land Assigned up to 31-12-1989.

Name of District	Total area assigned in hectares	Of which area (hectares) assigned to SC/ST	No. of families benefited	of which SC/ST	Percentage of SC/ST beneficiaries
(1)	(2)	(3)	(4)	(5)	(6)
Trivandrum	9410.51	1065.22	44449	7342	16.5
Quilon	16373.16	2357.88	81512	13857	17.0
Pathanamthitta	9450.85	923.22	37134	6511	17.5
Alleppey	1820.59	176.37	19658	3620	18.4
Kottayam	3916.29	880.48	15407	4488	29.2
Idukki	63594.53	7804.17	86118	32289	25.9
Ernakulam	10040.28	1306.97	57367	7720	13.4
Trichur	7248.81	1386.06	36854	4396	12.0
Palghat	14.40	97.22	982	716	73.0
Malappuram	910.92	328.53	5846	493	8.5
Kozhikode	55.99	24.43	840	120	14.3
Wyanad	13331.97	1780.31	28359	2855	10.1
Cannanore	358.74	57.20	2342	369	15.8
Kasaragode	44319.81	8888.21	104035	25019	24.1
Total	183516.85	27076.27	521103	98807	18.9

APPENDIX 10.5

District-wise Distribution of surplus land upto 31-12-1989.

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)
Trivandrum	3017	..	2320	5337	133	..	108	241
Quilon	3409	..	3200	6609	313	..	332	645
Pathanamthitt	330	..	394	724	35	..	27	62
Alleppey	3676	28	3914	7618	840	2	902	1744
Kottayam	2381	75	2805	5261	502	24	497	1023
Idukki	2186	353	2317	4856	820	126	855	1801
Ernakulam	3655	38	2147	5840	293	2	161	456
Trichur	7045	50	11683	18778	560	20	886	1466
Palghat	11670	1190	11850	24710	2209	380	2472	5061
Malappuram	7287	34	6738	14079	1306	5	1551	2862
Kozhikode	3718	240	4826	8784	473	41	489	1003
Wayanad	1273	2532	2704	6509	191	612	533	1336
Cannanore	3294	1712	7325	12331	921	572	2221	3714
Kasaragode	3500	719	6462	10681	1265	261	2270	3796
Total	56441	6971	68705	132117	9861	2045	13304	25210

State-wise Financial Assistance Disbursed by All India

State	IDBI	% to total	IFCI	% to total	ICICI	% to total	UTI	% to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Andhra Pradesh	365.70	8.34	88.42	8.94	65.91	7.83	129.91	11.91
2. Assam	36.01	0.82	4.54	0.46	4.29	0.51	0.61	0.06
3. Bihar	84.32	1.92	13.39	1.35	10.83	1.29	21.67	1.99
4. Gujarat	574.01	13.09	138.23	13.97	159.85	18.98	112.30	10.29
5. Haryana	112.26	2.56	38.22	3.86	26.09	3.10	4.64	0.43
6. Karnataka	282.75	6.45	34.76	3.51	37.82	4.49	28.01	2.57
7. Kerala	124.04	2.83	11.03	1.12	4.96	0.59	4.29	0.39
8. Madhya Pradesh	272.92	6.22	73.11	7.39	62.71	7.45	71.12	6.52
9. Maharashtra	559.48	12.76	124.63	12.60	146.24	17.36	473.70	0.96
10. Orissa	149.95	3.42	34.51	3.49	25.72	3.05	1.49	0.28
11. Punjab	148.93	3.40	67.93	6.87	32.89	3.91	10.92	1.00
12. Rajasthan	146.56	3.34	31.70	3.20	28.20	3.35	7.98	0.73
13. Tamil Nadu	482.61	11.01	64.33	6.50	100.91	11.98	27.84	2.55
14. Uttar Pradesh	468.77	10.69	151.51	15.32	75.12	8.92	140.52	12.88
15. West Bengal	299.29	6.83	31.23	3.16	27.99	3.32	44.01	4.03
Total	4107.60	93.66	907.54	91.74	809.53	96.12	1078.99	98.88
All India Total	4385.46	100	989.20	100	842.21	100	1091.24	100

11.1

Financial Institutions during 1988-89

GIC	% to total	LIC	% to total	NABARD	% to total	NCDC	% to total	Gras. Total	(A) (Crops)	% to total
(10)	(11)	(12)	(13)	(15)	(15)	(16)	(17)	(18)		(19)
5.04	4.37	168.20	38.05	137.58	10.33	12.69	6.17	973.45		
..	..	0.38	0.09	20.83	1.64	9.85	4.79	76.51		
0.18	0.12	21.31	4.82	71.21	5.60	1.76	0.86	224.67		10.42
29.19	25.30	74.80	16.92	46.80	3.68	3.05	1.48	1138.23		12
0.16	0.14	1.61	0.36	47.64	3.75	2.62	1.27	233.24		2.5
2.94	2.55	15.73	3.56	107.40	8.46	16.10	7.83	525.52		5.63
1.71	1.48	5.55	1.26	71.26	5.61	13.73	6.68	236.57		2.53
4.58	3.97	21.08	4.77	91.23	7.18	30.00	14.59	626.75		6.71
40.74	35.31	64.15	14.51	132.56	10.41	21.64	10.52	1563.14		16.73
1.03	0.89	1.84	0.42	38.92	3.06	4.71	2.29	253.17		2.76
3.72	3.22	3.90	0.88	75.93	5.98	22.30	10.84	366.52		3.92
0.85	0.74	3.37	0.76	53.61	4.22	15.11	7.35	237.36		3.08
5.91	5.12	15.58	3.53	96.97	7.64	12.34	6.00	806.49		8.63
7.61	6.60	15.10	3.42	200.78	15.81	12.62	6.14	1072.03		11.
6.11	5.30	15.87	3.59	56.22	4.43	6.19	3.00	486.91		5.1
109.77	95.13	428.47	96.94	1248.95	98.33	184.71	89.82	8875.56		95.6
115.38	100	442.00	100	1270.15	100	205.65	100	9341.29		100

APPENDIX 11.2

State-wise growth of Bank Offices in India

Bank Offices 1969, 1988 & 1989 (Including private scheduled Commercial Banks)											
	Number of Offices			Annual rate of increase		Percentage to total No. of Office			No. of Offices per lakh of population		
	June 1969	June 1988	June 1989	Between 1969 1988	Between 1969 89	June 1969	June 1988	June 1989	June 1969	June 1988	June 1989
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Andhra Pradesh	567	4308	4432	11.30	10.8	6.9	7.8	7.8	1.4	8.3	8.3
Assam	74	1031	1083	14.9	14.4	0.9	1.9	1.9	0.5	5.3	5.6
Bihar	273	4317	4466	15.6	15.0	3.3	7.8	7.8	0.5	6.3	6.7
Gujarat	752	3163	3257	7.9	7.6	9.1	5.7	5.7	3.0	9.1	10.0
Haryana	172	1220	1239	10.7	10.4	2.1	2.2	2.2	1.8	9.1	10.0
Karnataka	756	4026	3147	9.2	8.9	9.2	7.3	7.3	2.7	11.1	12.5
Kerala	601	2775	2799	8.4	8.0	7.3	5.0	4.9	2.9	11.1	11.1
Madhya Pradesh	343	3919	4112	13.7	13.2	4.2	7.1	7.2	0.9	7.7	7.7
Maharashtra	1118	5117	5327	8.3	8.1	13.5	9.2	9.3	2.3	8.3	8.3
Orissa	100	1812	1868	16.5	15.8	1.2	3.3	3.3	0.5	7.1	7.1
Punjab	346	2058	2073	9.8	9.4	4.2	3.7	3.6	2.4	12.5	12.5
Rajasthan	364	2796	2868	11.3	10.9	4.4	5.1	5.0	1.5	8.3	8.3
Tamil Nadu	1060	4039	4162	7.3	7.1	12.8	7.3	7.3	2.7	8.3	8.3
Uttar Pradesh	747	7758	7988	13.1	12.6	9.0	14.0	14.0	0.9	7.1	7.1
West Bengal	504	3656	3833	11.0	10.7	6.1	6.6	6.7	1.2	6.7	7.1
Total	7777	51995	53654	10.5	10.1	94.1	93.8	93.8	..	..	..
All India	8262	55414	57197	10.5	10.2	100.0	100.0	100.0	1.6	..	..