

GOVERNMENT OF KERALA

ECONOMIC REVIEW
1991

STATE PLANNING BOARD
THIRUVANANTHAPURAM

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CHAPTER I
GENERAL REVIEW

National Scene

The year 1991-92 has been an extremely difficult year for the Indian economy. When the new Government assumed office at the Centre in June last, the economy was virtually on the point of default in external payments with very low foreign exchange reserves, increasing budgetary deficit, rising interest burden on internal and external debt and a high rate of inflation. The growth of the economy, according to the latest Economic Survey of the Government of India is not likely to exceed 2.5 per cent during 1991-92, thus representing a significant shortfall as compared with the performance in previous years.

1.2 The foreign currency assets had declined to Rs. 2383 crores at the end of June 1991, which was barely enough to finance two weeks of imports. The BOP crisis that emerged in 1990-91 compelled the Government to introduce an import squeeze in that year due to shortage of foreign exchange which in turn led to a decline in industrial production in 1991-92. The payment crisis was not primarily due to the trade deficit, but was mainly contributed by the outflow of Foreign Currency Non-Resident (FCNR) deposits. On the price front, the wholesale price index which was only 7 percent on a point to point basis in August-September 1970 reached 13.7 per cent by February 1991 and further to a peak of 16.7 per cent in August 1991. But since then the rate of inflation has declined and by the end of January 1992 it had come down to 11.8 per cent. A number of demand pull and cost push factors have been responsible for such a rise in prices. The prices of fuels and lubricants as well as primary

goods rose sharply; the rise in the latter was fuelled by a rather poor crop in 1990, while on the case of the former the increase was caused by the supply disruption and the increase in the oil prices resulting from Gulf war. The sharp increase in the procurement prices for foodgrains over the last two years and some cash crops has also contributed to the inflationary pressure.

1.3 The excess demand in the economy was primarily generated by expansionary fiscal policies of Central and State Governments. This excess demand has been met through domestic borrowings, foreign borrowings and borrowings from Reserve Bank of India. Besides resorting to borrowing for investment purpose, the Government consumption expenditure has also come to be financed out of borrowings. This is reflected in the evergrowing budgetary deficit on revenue account.

1.4. Latest data relating to National Income are available for the year 1990-91. The National Income at current prices has grown by 18.33 per cent in 1990-91 from Rs. 351850 crores in 1989-90 to Rs. 416349 crores in 1990-91. The national income at constant prices has grown by 5.83 per cent from Rs. 1,76,159 crores in 1989-90 to Rs. 1,86,429 crores in 1990-91, while the per capita income growth has been at 3.68 per cent from Rs. 2,148 in 1989-90 to Rs. 2,227 in 1990-91. At current prices the per capita income is estimated at Rs. 4,974 in 1990-91 as against Rs. 4,291 in 1989-90.

1.5 The summary position of the selected indicators of the economy is given in Table 1.1.

TABLE 1.1
Selected Economic Indicators

	(Percentage change over previous year)											
	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91 (P)	1991-92 (P)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Gross national product(1)	7.3	5.8	2.6	7.9	3.8	4.1	4.0	4.0	10.5	6.1	5.8	2.5 to 3
Gross domestic product(1)	7.2	6.1	3.1	8.2	3.8	4.1	4.3	4.2	10.5	6.0	5.6	2.5 to 3
Agricultural production	15.6	5.6	-3.8	13.7	-1.2	2.5	-3.7	-0.8	21.0	2.1	2.6	0.0*
Foodgrains production	18.1	2.9	-2.9	17.7	-4.5	3.4	-4.7	-2.1	21.0	0.6	3.0	-1.5*
Industrial production (2)	4.0	9.3	3.2	6.7	8.6	8.7	9.1	7.3	8.7	8.6	8.5	-0.8(3)
Electricity generated	5.9	10.2	6.7	7.6	11.9	8.6	10.2	7.6	9.5	10.8	7.8	9.0(4)
Wholesale price index(5)	16.7	2.4	7.2	7.2	6.0	4.8	5.1	10.7	5.7	9.1	12.1	11.8(6)
Consumer price index for industrial workers(7)	12.6	8.8	9.8	8.6	5.3	8.3	6.2	10.9	8.5	6.6	13.6	13.1(4)
Money supply (M3)	18.1	12.5	16.1	18.1	18.9	15.9	18.6	15.9	17.8	19.4	14.9	14.9(8)
Imports at current prices (in Rupees)	37.3	8.4	5.0	10.8	8.2	14.7	2.2	10.7	26.9	25.4	22.0	7.0(9)
Imports at current prices (in US dollars)	40.5	-4.4	-2.5	3.5	-5.9	11.5	-2.2	9.1	13.6	9.1	13.2	-20.7(9)
Exports at current prices (in Rupees)	4.6	16.3	12.8	11.0	20.2	-7.2	14.3	25.9	29.1	36.8	17.6	28.1(9)
Exports at current prices (in US dollars)	7.0	2.6	4.6	3.8	4.5	-9.8	9.4	24.0	15.6	19.0	9.1	-5.0(9)
Foreign currency assets (Rupees crores)	4822	3355	4265	5498	6817	7384	7645	7287	6605	5787	4388	11410(10)
Foreign currency assets (US dollars million)	5850	3582	4281	5099	5482	5972	5924	5618	4226	3368	2296	4395(10)

*Anticipated. (P) Provisional.

(1) New series at 1990-91 prices.

(2) Based on old index (1970-71=100) for 1980-81 and new index (1980-81=100) thereafter

(3) April-October 1991.

(4) April-December 1991.

(5) Old index (1970-71=100) upto 1981-82 and revised index (1981-82=100) thereafter to 1981-82.

(6) April 1991-January 25, 1992.

(7) Old index (1960=100) upto 1982-83 and revised index (1982=100) thereafter.

(8) April 1991-January 10, 1992.

(9) April-November 1991.

(10) As on February 20, 1992 for 1991-92 and at the end of March for past years.

1.6 The deceleration in the growth of the Economy is largely attributable to the decline in Industrial Production. The index of industrial production in April-June 1991 was lower at 2.3 per cent than a year earlier. The overall decline in the index of industrial growth during April-November was 0.9 per cent. All major industries except beverages, tobacco and cement recorded lower growth rate. Capital goods industries, consumer durables and export oriented industries were particularly affected. On the Agriculture front, the output is at best likely to be maintained at last year's level with foodgrains production performance again showing a fall.

1.7 The performance of infrastructure sector, however, was much better than in the previous year with the output of coal showing an increase of 10.9 per cent and of electricity 9 per cent. The railways revenue earning traffic went up by 7.5 per cent during April-December 1991. But the crude oil production was lower by 7.1 percent.

1.8 The services sector is expected to register a growth of 5.6 per cent with financial and transport services performing much better than the other services.

1.9 The sluggish growth of the economy viewed in the context of a grave external payment crisis and a high rate of inflation demanded immediate corrective measures; short term measures aimed at crisis management and long-term measures aimed at improving efficiency and productivity for putting the economy back on the path of sustainable growth. The Government have therefore initiated certain far reaching programmes of structural reforms during the year with a view to restoring conditions for rapid growth of the economy. The four major policy initiatives taken by the Government to fundamentally address the macro-economic problems were:

(i) Fiscal measure to reduce the budgetary deficit to Rs. 7719 crores in 1991-92 from Rs. 10772 crores in the previous year along with measures for appreciable reduction in fiscal deficit.

(ii) A trade policy initiative to create an environment which would provide a stimulus to export while at the same time reducing the degree of rigidity and regulation of licencing control on foreign trade intended to broaden, enhance and harmonise export incentives and to introduce a self balancing mechanism, where imports would be automatically regulated by availability of exim scrip export earnings. The budget for 1992-93 presented to the Parliament on 29th February 1992, announced certain bold trade policy initiative by making the Rupee partly convertible, and withdrawing the exim scrips, which is expected to give a boost to Indias foreign trade.

(iii) A new industrial policy sought to deregulate the industry so as to promote a more efficient and competitive industrial economy. The policy, inter-alia aimed at abolition of industrial licensing to a number of industries, amendment of MRTP Act to enable companies capacity expansion, greater participation by private sector, setting up of a National Renewal Fund to provide a safety net to the workers etc.

1.10 Along with the industrial policy reforms, steps have also been taken to facilitate the inflow of foreign investment and non-debt creating inflows by raising the foreign equity participation. Measures have also been initiated to streamline the procedure for foreign investment in non-priority areas, and for

automatic approval of technology imports etc. which are expected to ease the strain on foreign exchange.

1.11 These medium term measures designed to encourage the inflow of foreign capital funds together with some of the short term measures taken to replenish the foreign exchange reserves had some measure of success as reflected in the marked improvement in the foreign exchange reserves which reached Rs. 11410 crores (\$4.4 billion) in the third week of February 1992. Eventhough the fiscal deficit and the budgetary deficit have been reduced, the substantially large revenue deficit that still remains is a matter of concern. Even the 1992-93 budget shows a revenue deficit of over Rs. 13882 crores, more or less same as that in the previous year's budget estimate. The revised estimate for 1991-92 shows a revenue deficit of Rs. 17081 crores. This calls for a very major budgetary reform without which various other corrective measures are not likely to give the desired results as it entails a continued diversion of capital funds to meet the consumption expenditure. The objective in the coming years should be to consolidate the gains from the new policy initiatives which would facilitate larger fiscal and budgetary reforms to raise the rate of growth at a lower economic and social cost, and also to pursue the basic goals of generating investment and employment. Some of the comprehensive packages such as abolition of wealth tax on stocks and shares, treatment of private sector mutual funds on par with the public sector mutual funds for tax purposes, opening of Indian capital market to foreign pension funds, reduction in interest rates, reduction in the statutory Liquidity Ratio of Banks etc. announced in the Budget for 1992-93 would help to enlarge the availability of funds to the Indian Capital market, which is expected to generate larger industrial investment to facilitate economic growth on a sustained basis.

Kerala's Economic Scene

1.12 The development experience of Kerala continued to present certain paradoxical features—low percapita income and high percapita consumption, low rate of growth especially in the commodity producing sectors and high level of physical quality of life index such as low infant mortality, low death rate, high life expectancy and high literacy rate.

1.13 The structural contribution of State income during the past three decades is such that the primary and secondary sectors lag behind the services sector. The annual average rate of growth of State income from the primary sector was (-)0.43% compared to the all India growth rate of 4.45% during the period 1961-62 to 1988-89. Similarly the rate of growth in State income from Secondary sector was only 3.48%, compared with the all India figure of 6.9% during the above period. Needless to say that the percapita income of the State has also been growing slower than the all India average. The sluggish growth of the economy in the past has created a vicious circle, as it coincided with a marked slow down in plan investment. The growth in plan outlays, both in absolute and percapita terms, has been grossly inadequate to ensure the required level of economic growth in line with most of the other regions of the Country.

1.14 The State's inability to push up its percapita plan outlay squarely rests on its failure to generate adequate budgetary resources. The finances

of the State Government underwent an unprecedented pressure, especially during 1980's, on account of factors like sharp increase in non-development expenditures including interest payment, poor financial performance of the public sector undertakings and virtually no returns from investment on co-operatives, irrigation and other public investment. The revenue budget of the State Government has been showing deficit continuously from 1983-84 and with each passing year this deficit has been increasing. The revenue deficit as a percentage of revenue expenditure increased from 5.05% in 1985-86 to 12.92% (BE) in 1991-92.

1.15 The overall revenue deficit of the State is largely due to the deficit on non-plan revenue account. While during the Sixth Five Year Plan there was a non-plan revenue surplus of Rs. 187 crores, the Seventh Five Year Plan closed with a non-plan deficit of Rs. (—)1031 crores. The next two Annual Plans witnessed a further deterioration in the non-plan revenue deficit. In 1992-93 it is estimated at Rs. (—)861 crores. This non-plan revenue deficit becomes a first charge on the resources raised for the plan and funds borrowed in the name of plan have to be diverted for financing this non-plan revenue deficit. This is an extremely unhealthy and undesirable practice of managing the finances of a Government. Thus the inability of the State Government to generate budgetary savings has been a major factor for its low rate of plan investment and low rate of economic growth. The unbridled increase in non-plan expenditure has been the main reason for the difficult resource position of the State Government.

1.16 To make matters worse, the investments made by the State Government in various projects

have yielded practically no returns. For instance the State Government has so far invested about Rs. 964 crores on its irrigation projects. The return from this investment is negligible. As at the end of March 1990, the total share capital investment by the State Government in its enterprises were of the order of Rs. 377 crores. The return from this investment is a meagre 0.35%. Besides this, loans to the extent of Rs. 497 crores were outstanding from these enterprises. Receipts by way of repayment of loan and payment of interest are again insignificant.

1.17 Thus the State Government is faced with a host of problems like very high non-plan revenue deficit, negligible returns from investments, low levels of plan investment in percapita terms, low growth in commodity producing sectors, low rate of growth in percapita income, high levels of unemployment especially educated unemployment etc. The high physical quality of life achieved by the State cannot be sustained in the long run unless there is a commensurate growth in the productive sectors of the economy. To tackle these problems, it is necessary to chalk out well thought out policies to take the economy on the path of higher growth. Bold and innovative policies and measures are necessary to contain expenditure, raise resources and increase the efficiency of use of resources. The fiscal and developmental imbalances in the State have reached such proportions by now, that basic correctives could not be postponed any more without disastrous effects on the State, its economy and its people, especially the unemployed and the poor.

1.18 Selected indicators of the State's economy is presented in Table 1.2.

TABLE 1.2
Important Indicators of State Economy

Item	1970-71	1980-81	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
State Income (At current prices) Rs. crores	1255	3829	6436	7320	8103	9135	10174(P)	11499(Q)	12808(A)
State Income (1980-81 prices) Rs. crores	1255*	3829	4042	3938	4047	4444	4705(P)	5104(Q)	5468(A)
2. Percapita Income (At current prices) Rs.	594	1513	2328	2603	2834	3146	3451(P)	3843(Q)	4220(A)
3. Out-Put of Important commodities									
(a) Rice-lakh tonnes	12.98	12.72	11.73	11.34	10.33	10.13	11.41	10.87	..
(b) Coconut-Million nuts	3981	3008	3377	3173	3946	4215	4358	4527	..
(c) Arecanut-Million nuts	12738	10805	10664	53207	10665	11450	11964	12341	..
(d) Pepper-1000 tonnes	25.08	28.52	33.12	30.38	46.82	43.24	54.14	47.92	..
(e) Rubber "	78.73	140.33	184.70	202.13	216.56	238.41	275.40	307.52	..
(f) Tea "	41.45	50.72	52.63	50.34	56.28	65.77	57.08	64.03	..
(g) Coffee "	12.57	36.48	23.55	23.55	22.93	47.43	23.80	NA.	..
4. Prices									
(a) Wholesale price Index of agricultural commodities Base 1952-53=100)	222	551	689	849	946	957	906	1093	1282*
(b) Consumer price index Number (Base 1970=100)@@	364	202	314	340	368	395	413	435	494
5. Plan outlay (Rs. crores) (Accounts)	59.35	311.31	411.95	455.46	407.77	543.13	620.28	660.57 (RE)	811.53 (BE)

*At 1970-71 prices P: Provisional Q: Quick Estimate A: Anticipated.
@ Nine months average
@@Relates to calendar years from 1980 onwards & for 11 months average for 1991

State Income

1.19 According to Quick Estimate, the State income of Kerala for 1991-92 at current prices is placed at Rs. 12808 crores representing an increase of 11.38 per cent over Rs. 11499 crores in 1990-91. In 1980-81 prices the State income is estimated at Rs. 5,468 crores for 1991-92 as against Rs. 5,104 crores for 1990-91. This represents a growth rate of 7.1 per cent in 1991-92 compared to the growth rate of 8.5 per cent during the previous year. The per capita State income at current prices works out to Rs. 4,220 for 1991-92 as compared to Rs. 3,843 in 1990-91. In 1980-81 prices, per capita income increased from Rs. 1,706 in 1990-91 to Rs. 1,802 in 1991-92, an increase of 5.6 per cent.

1.20 The share of the secondary sector in State income, has increased, though marginally, to 26.56 per cent in 1991-92, from 25.12 per cent in 1988-89. The tertiary sector continues to dominate the structural profile of state income though there has been a marginal shift in favour of the commodity producing sectors.

Employment Situation

1.21 Chronic unemployment and under-employment, especially of the educated youth, continue to be the major problems faced by the State. At the end of September 1991, there were 35.90 lakh job seekers on the live registers of the Employment Exchanges in the State. The number at the beginning of the year was 34.00 lakhs. Of these, those who had qualifications of SSLC and above were 22.80 lakhs.

1.22 The total number of professional and technical job seekers increased from 38,205 in 1980 to 105,260 in 1990. But as on 31-3-1991, the figure has marginally come down to 100,861.

1.23 Of the total employment of 11.51 lakhs in the Organised Sector as on 31-12-1991, the Public Sector accounted for 6.34 lakhs and the Private Sector 5.17 lakhs.

1.24 Under the unemployment assistance scheme the disbursement during 1990-91 was Rs. 19.35 crores, and the number of beneficiaries was 2.46 lakhs. During the first half of 1991-92 Rs. 1.33 crores was disbursed to 1.90 lakh beneficiaries.

Price Situation

1.25 The all India wholesale Price Index for all the commodities rose by 16.7 per cent on a point to point basis upto August 1991 compared to 7 per cent in the corresponding period last year. This has since come down to 11.8% by end of January 1992. The wholesale price index for Agricultural commodities in Kerala rose by 235 points, from 1028.4 in 1990 to 1263.1 in 1991. The consumer Price Index in Kerala rose from 435 in 1990 to 494 in 1991, an increase of 13.56 per cent over the previous year.

Agriculture

1.26 The relatively favourable weather conditions since 1988 have helped to sustain the growth during the four years 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 with the help of Krishi Bhavans, which is located in every panchayat, during 1989-90 continued in 1991-92.

1.27 The overall production performance of the crops was encouraging, with a number of crops like pulses, groundnut, banana, coconut, rubber, tea, and turmeric recording higher production in 1990-91 compared to the previous year. However, two important crops viz. rice and tapioca suffered decline in production compared to the previous year.

1.28 Production of rice decreased from 11.41 lakh tonnes in the previous year to 10.87 lakh tonnes in 1990-91. Decline in productivity and fall in area were the major reasons even though with a view to increasing rice production, a programme for group farming was introduced in 1989-90 and is gaining wide acceptance. The area under high yielding variety increased from 1.55 lakh ha. in 1989-90 to 1.62 lakh ha. in 1990-91.

1.29 Thanks largely to favourable monsoons during the last three years, there has also been significant increase in coconut production. Introduction of Group Management in coconut cultivation and timely market intervention through KERAFED, together created a favourable impact on coconut production during 1990-91 just as in the previous year helping it to attain production of 4,527 million nuts as against the production of 4,358 million nuts in 1989-90. The support price offered for the last season was Rs. 1,600 per quintal of copra.

1.30 Production of cashew, a most important export oriented crop of Kerala, marginally declined to 105 lakh tonnes in 1990-91 from 106 lakh tonnes in 1989-90.

Livestock

1.31 Kerala has the record of having the highest percentage of cross bred cattle in the State. The total number of artificial inseminations administered increased from 13.57 lakhs in 1989-90 to 15.15 lakhs in 1990-91. Milk production increased from 16.00 lakh tonnes in 1989-90 to 16.90 lakh tonnes in 1990-91. Egg production increased from 1500 Million in 1989-90 to 1550 Million in 1990-91. The formation of Amul Pattern Co-operative Societies in the State has progressed satisfactorily; 1299 societies had been registered up to November 1991. These societies have made a major impact on the Dairy Sector in the State in regard to production, procurement and marketing of milk.

Fisheries

1.32 The total fish production recovered significantly in 1989-90. Compared with the production in 1988-89 of 4.69 lakh tonnes, that in 1989-90 was 6.75 lakh tonnes. This has further increased to 6.99 lakh tonnes in 1990-91. The contribution of marine fish products from Kerala during 1990-91 was 50,997 tonnes, compared to 47,194 tonnes in the previous year. In value terms, exports in 1989-90 amounted to Rs. 313.79 crores, which work out to about 35.12 per cent of the total value of fish exports from the country. There are 2.17 lakh fishermen in the State.

Irrigation

1.33 The total investment in Irrigation, major medium and minor schemes, till the end of 1990-91 amounts to Rs. 964 crores. The total area brought under irrigation is 3.22 lakh ha. (net) or 5.50 lakh ha. (gross). The share of major and medium irrigation schemes is 1.86 lakh ha. (net) or 3.86 lakh ha. (gross), achieved through ten completed schemes and partial commissioning of 7 ongoing schemes. Of the total investment of Rs. 964 crores, the amount invested on major and medium irrigation was Rs. 792 crores.

1.34 Of the total area irrigated, the share of minor irrigation schemes is 1.36 lakh ha. (net) of 1.64 lakh ha. (gross) with a total investment of Rs. 173 crores. During 1990-91, 67 Minor Irrigation (MI) class I schemes, 102 MI Class II schemes and 51 Lift Irrigation Schemes were completed.

Power

1.35 Thanks to favourable monsoons, power generation during 1990-91 increased by 8 per cent, to 5490 MU from 5075 MU in the previous year. The quantum of power imported increased from 1160 MU in 1989-90 to 1304 MU in 1990-91.

1.36 The installed capacity as at the end of 1990-91 was 1476.5 MW. No new project was completed during the year under review. The per capita consumption of power in the State stood at 164 Kwh in 1990-91. This was still considerably below the all India per capita consumption of 236 Kwh.

Industry

1.37 The year 1990-91 witnessed improved performance overall.

1.38 Improvement in the industrial climate witnessed during the previous three years continued in 1990-91. This was clearly reflected in the decline in the number of industrial disputes, mandays lost, and the number of industrial workers affected.

1.39 The total number of registered factories stood at 12,674 in 1990 compared to 11,973 in 1989. The number of workers employed in the factory sector increased from 345,805 in 1989 to 355,161 in 1990. The cashew industry alone provided employment to 100,000 workers, who constitute nearly 30 per cent of the total number employed in the factory sector. The other major employing industries were general engineering, cotton textiles, chemical industry, rubber, tiles and automobile repairing.

1.40 The number of joint stock companies functioning in Kerala increased to 4257 by 1990-91 from 3,923 during 1989-90. The number of companies newly registered during 1990-91 was 356. Of this, 320 were private limited companies and 36 public limited companies. The total number of Government companies has increased to 100.

1.41 Around two-thirds of the 52 State Public Sector Industrial Units reviewed were working on loss during 1990-91. Only 18 out of 52 units reviewed were having profit during the year. These 18 units together earned a net profit of Rs. 21.08 crores, of which 70 per cent was contributed by four chemical industries viz.

Travancore Titanium Products Ltd., Travancore Cochin Chemicals Ltd., Travancore Cements Ltd., and Malabar Cements Ltd. Thirty three units, for which data are available, have together incurred a total loss of Rs. 55.48 crores. All the subsidiary companies of the Kerala State Industrial Enterprises Limited were working on loss during 1990-91. Out of the 52 units reviewed, 39 units had accumulated loss amounting to a total of Rs. 415.43 crores as on March 31, 1991 against the total paid up capital of Rs. 283.91 crores for all these units put together as on that date. The amount of loss incurred by 26 companies have far exceeded their paid up capital. Kerala Minerals and Metals Ltd., with a loss of Rs. 86.46 crores, Transformers and Electricals Kerala Ltd., with Rs. 44.72 crores, Kerala State Cashew Development Corporation Ltd., with Rs. 43.27 crores top the list of loss making State public sector industrial units.

1.42 Two new Government companies viz., Kerala Police Housing and Construction Corporation Ltd., and Kerala Transport Development Finance Corporation Ltd., have been registered during 1990-91 taking the total number of Government undertakings from 100 to 102.

1.43 The total number of small scale units in the State, as at the end of 1990-91, was 73,522 out of which 8847 were started in 1990-91. New units started in 1990-91 are estimated to have provided fresh employment to 42,881 persons. The number of sick units which were revived during 1990-91 was 60. It is estimated that the small scale sector provided employment to 4.45 lakh persons in the State during 1989-90.

1.44 The major promotional agencies attending to small scale industries are Kerala Financial Corporation (KFC) and Small Industries Development Corporation (SIDCO). The latter 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 loans amounting to Rs. 76.67 crores in 1990-91. The disbursements during the year amounted to Rs. 60.17 crores. The aggregate amount of loan disbursed by KFC as on 31-3-1991 amounted to Rs. 328.21 crores.

1.45. The State's traditional industries, cashew, handloom and coir continued to face various problems. Production of handloom cloth decreased, from 55.15 million metres in 1989-90 to 54.60 million metres. Non-availability of adequate quantity of husk at a reasonable price, inadequacy of working capital with the coir co-operative societies, dwindling domestic and external markets were the major problems facing the coir industry. Export of coir and coir products increased only by 2 per cent in 1990-91 over the previous year.

1.46 The major problem facing cashew industry is the non-availability in adequate quantities of raw cashew-nuts, resulting in low capacity utilisation and large scale under employment of workers engaged in the industry. The monopoly procurement of raw cashew introduced in 1988 continued during 1991.

Export of cashew in 1990-91 increased by 10 per cent over 1989-90. Export of cashew increased to 50101 tonnes in 1990-91 from 44858 tonnes in 1989-90. The value of the nuts exported increased by 30 per cent from Rs. 360 crores in 1989-90 to Rs. 442 crores in 1990-91. During 1990-91, import of raw cashew was 72,506 tonnes compared to 52474 tonnes in the previous year. In accordance with the provisions contained in the New Industrial Policy of the State, traditional industries are being revitalised by restructuring the Co-operative Sector. The financial base of the Co-operative Societies in the Traditional Industries is being restructured by strengthening the share capital base, converting outstanding loans into share capital. It is proposed to modernise coir industry, following the recommendations of the Special Task Force on Coir Industry and introduce mechanisation in a phased manner in order to make coir products competitive.

1.47 Sericulture has been identified as an activity with high employment potential in rural areas has been declared as a village industry. A total area of 2700 acres was brought under mulberry cultivation by the end of 1989-90. During 1990-91 4887 acres and during the first nine months upto December 1991 5052 acres have been brought under mulberry cultivation. A target of 50,000 acres covering all the districts in the state have been fixed, for mulberry cultivation, for the Eighth Five Year Plan.

1.48 Central sector investment in Kerala in terms of gross block, amounted to Rs. 1701 crores at the end of March 1990. Kerala's share of Central investment has been steadily declining over the last 14 years. The share came down from 3.24 per cent in 1975 to 1.50 per cent in 1990. The State's share of Central sector investment has hardly improved during the last five years.

Transport

1.49 The Kerala has a fairly well developed transport infrastructure. The total road length in the State increased by 2770 km. from 1,25,633 km. in 1989-90 to 128,403 km. in 1990-91. About 75 per cent of the road length comes under panchayats.

1.50 As regards coverage, Kerala has a road length of 330 km. per hundred sq. km. of area and 443 km. per lakh of population (1991 Census). The total number of motor vehicles registered in the State stood at 6.48 lakhs in 1990-91 as against 5.81 lakhs in 1989-90. Kerala had 2234 vehicles per lakh of population (1981 Census) and 1667 vehicles per hundred sq. km of area.

1.51. The Kerala State Road Transport Corporation (KSRTC) the only public sector agency for passenger transport by road in the State, accounts for only 22 percent of the total stage carriage. In recent years, efforts to replace the overaged buses have been intensified. The Corporation which showed some signs of improvement in 1989, went down hill by 1990-91 and the slide continues in 1991-92 when it is becoming increasingly difficult to maintain its operations.

Tourism

1.52. The Tourism Department and the Kerala Tourism Development Corporation (KTDC) are the two official agencies engaged in the promotion of tourism in the State. Tourism Promotion Councils have been organised in almost all the districts. The KTDC runs a chain of eleven hotels, eight motels and two restaurants within the State. Over 69,000 foreign tourists are estimated to have visited the State during 1990-91.

1.53. Institute of Tourism and Travel Studies has been conducting courses with a view to giving a professional orientation to the various aspects of tourism in the State.

Education

1.54. According to 1991 Census Kerala achieved a literacy rate of 90.50% as against 52.11% for the country. Male literacy rate stood at 94.45% while the female literacy was 86.93%.

1.55. During 1990-91 there were 12,133 schools in the State, comprising 6767 L.P. Schools, 2915 U.P. Schools and 2451 High Schools. Of the total number of schools, 4485 were in Government Sector, 7331 private aided schools and 317 private unaided schools. The total student strength during 1990-91 was 59.01 lakhs. It is noteworthy that at the lower primary level enrolment came down from 25.27 lakhs in 1989-90 to 24.72 lakhs in 1990-91.

1.56. Out of the total student strength of 59.01 lakhs, the number of girl students came to 49 per cent. The overall coverage was 92.14 in the 5-9 age group, and 87.7 in 10-14 age group.

1.57. The total number of teachers stood at 1.91 lakhs in 1991, of whom, 1.19 lakhs were in private sector, and 71989 were in Government. The teacher-pupil ratio during 1990-91 was 1:30 compared to 1:31 during the previous year. The vocational higher secondary education was implemented in 186 schools. During 1990-91 the total intake in vocational education stood at 8665 and 12150 in 1991-92.

1.58 Higher secondary course (plus two course) is offered in 86 schools in 1991-92, out of which 49 were Government Schools. The annual intake is 5160 students.

1.59. As regards higher education, the number of Arts and Science Colleges remained unchanged at 172, consisting of 40 Government Colleges and 132 Private Colleges. The student strength at the University level was 3.56 lakhs during 1990-91. The number of teachers in the Arts & Science colleges in 1990-91 was 14159.

1.60. The technical education institutions in the State during 1990-91 consisted of nine engineering Colleges, 30 polytechnics, 47 Technical High Schools and 19 pre-vocational training centres, one Fine Arts College, 2 fine arts Institutes, 7 food craft institutes and 49 vocational training centres. The intake in Engineering colleges during the year was 2,941. Of the 30

polytechnics, 24 were in the Government sector and the rest in private sector. The total student strength in polytechnics stood at 11,531 in 1990-91. New intake in polytechnics was 4,554 in 1990-91.

1.61. The total expenditure on Education in 1990-91, as per revised estimates was Rs. 761.30 crores. Of this, 48 per cent was incurred on primary education, 30 per cent on secondary education. The per capita Government expenditure on education stood at Rs. 263 during 1990-91.

Health

1.62. 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 20.3, death rate 6.1 and infant mortality rate 21 in 1990.

1.63 The State's health infrastructure under Allopathy, comprised of 140 hospitals, 908 primary health centres, 51 dispensaries, 22 T. B. Centres, 15 leprosy control units, 54 community health centres 77 subsidiary health centres and 36 grant-in-aid institutions, all in the Government sector. In addition, there were private hospitals, clinics etc. According to provisional data, the number of hospital beds per lakh of population in 1990-91 was 133.

1.64 There were also 101 Ayurveda hospitals and 506 dispensaries at the end of the year 1990-91.

1.65 The number of homoeopathic hospitals was 30 as compared to 26 in the previous year and the number of dispensaries increased to 312 in 1990-91 from 274 in the previous year.

1.66 The Government expenditure on Medical and Public Health amounted to Rs. 190 crores during 1990-91. Out of this, allopathy accounted for 87 per cent. The per capita expenditure on Medical and Public Health increased to Rs. 92 in 1990-91 compared to Rs. 79.16 in the previous year.

1.67 The Family Welfare Programme in the State is administered through a network of 83 main urban centres, 943 main rural centres and 5,094 rural sub centres. The achievement by the state in this regard is way ahead of those in the other States. The couple protection rate had reached 66 on 31st March, 1991 as against 42 for all India.

Housing

1.68 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 Governments' housing programmes is directed towards the benefit of the economically weaker sections. According to 1991 Census (provisional figures) there were 52.1 lakh residential buildings and 54 lakh households in the State. The existing demand for housing at the beginning of 1991 was about 11 lakh houses, out of which 1.90 lakhs is the numerical shortage,

6 lakh huts which are not fit for dwelling and 3 lakhs required to be demolished and reconstructed.

1.69 Under the rehabilitation housing programmes, 1,54,847 houses were constructed upto 1990-91 end, the Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes had extended financial assistance for the construction of 32227 houses. The Kerala State Co-operative Housing Federation Ltd. had disbursed an amount of Rs. 14,114 crores as on March 31, 1991. 41,515 houses were completed till 31-3-1991 with assistance from the Co-operative Housing Federation.

1.70 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.

1.71 The Board of Revenue, the major Government department engaged in housing activity distributed 2634 house sites for landless labourers. Of these, 876 beneficiaries belonged to Scheduled Castes and Scheduled Tribes. In addition, 396 workers, including 58 from SC/ST were also given financial assistance for construction of houses.

Water Supply and Sanitation

1.72 According to latest estimates, over 70 per cent of the urban population and 37 percent of the rural population could be provided with protected drinking water. In the three cities, the coverage is nearly 90 per cent. Out of the total number of 1509 ongoing rural water supply schemes, 69 schemes were completed during 1990-91.

Institutional Finance

1.73 Kerala's share in the loans disbursed by the all India financial institutions as on 31-3-1991 was only 2.75 per cent. This is not only lower than the State's population share but also significantly below the shares of several other states, the comparable share of Maharashtra was 15.62 per cent, Gujarat 11.13 per cent, Tamil Nadu 9.12 per cent, Karnataka 6.71 percent and Andhra Pradesh 9.07 per cent.

1.74 Deposits of the public sector banks in India increased from Rs. 3,897 crores in 1969 to Rs. 1,72,393 crores as at the end of June 1991. For Kerala the credit deposit ratio has been declining steadily over the years. The CD ratio declined from 65.8 percent in 1969 to 58.72 per cent by September 1991.

Plan Outlay

1.75 The plan outlay budgeted for 1991-92 was Rs. 811.53 crores (inclusive of Rs. 4.53 crs in the budget presented in July 1991). Due to constraints in resources the plan outlay is not likely to be utilised in full.

1.76 For the Annual plan 1992-93 an outlay of Rs. 913 crores has been approved. This represents an increase of 13 per cent over the outlay for 1991-92.

INCOME AND EMPLOYMENT

National Income

The gross domestic product (GDP) at constant (1980-81) prices in 1990-91 is estimated at Rs. 2,10,477 crores as against Rs. 1,99,329 crores in 1989-90 showing a growth rate of 5.6 per cent during the year as against 6 per cent for the previous year. At current prices GDP in 1990-91 is estimated at Rs. 4,72,599 crores as against Rs. 4,01,569 crores in 1989-90 showing an increase of 17.7 per cent.

2.2 The national income (net national product) in real terms for 1990-91 is estimated at Rs. 1,86,429 crores as against Rs. 1,76,159 crores in 1989-90 registering a growth of 5.8 per cent. At current prices the national income is estimated at Rs. 4,16,349 crores compared to Rs. 3,51,850 crores in the previous year showing an increase of 18.3 per cent.

2.3 The per capita national income in real terms has gone up by 3.7 per cent from Rs. 2,148 in 1989-90 to Rs. 2,227 in 1990-91. At current prices the per capita income is estimated at Rs. 4,974 as against Rs. 4,291 for the previous year showing a growth rate of 15.9 per cent during the year.

2.4 According to the latest Economic Survey of Government of India, the year 1991-92 has been an exceptionally difficult year. The survey has pointed out that the rate of growth of Gross Domestic Product during the year may not exceed 2.5 per cent. Agricultural growth had remained static and there was hardly any growth in the industrial sector too. However, the infrastructure performed better and the service sector registered a growth of 5.66 per cent.

State Income

2.5 The quick estimate of the state domestic product (anticipated) for 1991-92 shows that the state economy is likely to perform well during the year. The Gulf Crisis does not appear to have slackened the growth of the domestic economy as feared. The tempo of growth observed in the primary and secondary sectors during the late eighties is expected to continue in 1991-92 as well. Such sustained growth of the commodity producing sectors especially that of agriculture and manufacturing could accelerate the process of state's economic development. The announcement of the 'New Industrial Policy' by the State government to attract private capital from other states and from NRIs has come at the right time when the prospects of economic growth are bright and the situation has become conducive to the industrial development of the State.

2.6 As per the quick estimates the State income in 1991-92 at constant prices (1980-81) is likely to go up by 7.13 per cent from Rs. 5,104 crores in 1990-91 to Rs. 5,468 crores in 1991-92. At current prices the income is estimated at Rs. 12,808 crores in 1991-92 as against Rs. 11,499 crores in 1990-91 registering a growth rate of 11.38 per cent. The per capita state income at constant prices in 1991-92 estimated at Rs. 1,802 is higher by 5.63 per cent compared to the per capita income of Rs. 1,706 estimated for the preceding year. At current prices the per capita income has registered a growth rate of 9.81 per cent from Rs. 3,843 in 1990-91 to Rs. 4,220 in 1991-92.

2.7 The per capita income of Kerala is significantly low when compared to the national average even though the relative gap has narrowed down marginally. The per capita income is only about three-fourth of the national average. The estimates of total and per capita income of Kerala and India are given in Table 2.1

TABLE 2.1

National Income and State Income (New Series)

Item	1980-81	1989-90 (P)	Growth Rate(%)	1990-91 (Q)	Growth Rate(%)	1991-92 (A)	Growth Rate(%)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
National Income (Rs. Crores)							
At Current Prices	110675	351850	14.00	416349	18.33	N.A	..
At Constant Prices	110675	176159	6.00	186429	5.83	N.A	..
State Income (Rs. Crores)							
At Current Prices	3829	10174	11.36	11499	13.02	12808	11.38
At Constant Prices	3829	4705	5.88	5104	8.48	5468	7.13
Per Capita National Income (Rs.)							
At Current Prices	1630	4291	11.60	4974	15.92	N.A	..
At Constant Prices	1630	2148	3.80	2227	3.68	N.A	..
Per Capita State Income (Rs.)							
At Current Prices	1513	3451	9.69	3843	11.36	4220	9.81
At Constant Prices	1513	1596	4.31	1706	6.89	1802	5.63

Notes—1. Constant Prices refer to 1980-81 as base.

2. P—Provisional; Q—Quick Estimate; A—Anticipated; N.A—Not Available

Sources: (1) Department of Economics & Statistics

(2) Central Statistical Organization

Sectoral Distribution of Income

2.8 The sectoral changes in the economy show a positive shift towards the secondary sector. Though stagnant in terms of its share in the total value added for most part of the eighties, the secondary sector has shown substantial potential to grow as displayed by its growing share in the total income as can be seen

from Table 2.2. A closer scrutiny of the secondary sector shows that the impetus to growth has come from the industrial sector.

2.9 The sectoral distribution of state income at current prices is given in Appendix 2.1 and at constant prices in Appendix 2.2.

TABLE 2.2
Sectoral Contribution of Net Domestic Product—Kerala

Sector	(Per cent)						
	At Current Prices				At Constant Prices		
	1980-81	1989-90	1990-91	1991-92	1989-90	1990-91	1991-92
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Primary	39.17	35.76	32.38	31.34	39.08	36.81	36.55
Secondary	24.33	23.90	25.94	26.64	22.74	25.12	26.56
Tertiary	36.50	40.34	41.68	42.02	38.18	38.07	36.89
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Regional Distribution of Income

2.10 Trends in regional distribution of State Income and its sectoral components may serve as a useful and operational indicator of structure and pattern of regional imbalances in economic development. Districts are the smallest regional units for which income estimates are available. The district-wise distribution of State Income under the three broad sectors at constant prices for the year 1980-81 and 1990-91 is given in Appendix 2.4. Temporal comparisons of income estimates of some of the districts are not strictly valid due to their geographical reorganisation. Nevertheless, this may indicate the regional concentration of broad economic activities and their variation. Examples are the concentration of industries and its strengthening over the years in Ernakulam and public utilities and social services in Thiruvananthapuram.

2.11 Per capita district income may be taken as an indicator of the level of economic development of that region. In 1980-81 Ernakulam district had the highest per capita income followed by Idukki and Kozhikode districts. In 1990-91 also Ernakulam continues to hold the first position at current and constant prices followed by Idukki and Wayanad. Kozhikode district, which occupied the third rank in 1980-81, has come down to hold the fifth and eighth ranks at current and constant prices respectively during 1990-91. Malappuram district continues to have the lowest per capita income. The district-wise per capita income and their respective ranks for 1980-81 and 1990-91 are given in Table 2.3

TABLE 2.3
Per Capita Income at Current and Constant Prices—1980-81 and 1990-91

District	(Rs.)			
	Constant prices		Current Prices	
	1980-81	1990-91	1980-81	1990-91
(1)	(2)	(3)	(4)	(5)
Thiruvananthapuram	1489 (6)	1686 (7)	1489 (6)	3792 (6)
Kollam	1541 (5)	1648 (9)	1541 (5)	3756 (9)
Pathanamthitta	..	1761 (4)	..	3881 (4)
Alappuzha	1316 (9)	1573 (12)	1316 (9)	3604 (12)
Kottayam	1458 (8)	1734 (5)	1458 (8)	3798 (7)
Idukki	2001 (2)	2329 (2)	2001 (2)	5091 (2)
Ernakulam	2023 (1)	2497 (1)	2023 (1)	5612 (1)
Thrisur	1467 (7)	1647 (10)	1467 (7)	3772 (8)
Palakkad	1311 (10)	1423 (13)	1311 (10)	3195 (13)
Malappuram	1049 (11)	1084 (14)	1049 (11)	2492 (14)
Kozhikode	1592 (3)	1657 (8)	1592 (3)	3835 (5)
Wayanad	..	2128 (3)	..	4563 (3)
Kannur	1576 (4)	1611 (11)	1576 (4)	3674 (11)
Kasaragod	..	1690 (6)	..	3702 (10)
State	1513	1706	1513	3843

Note:—Figures in brackets show the respective ranks.
37/851/MC.

Unemployment

2.12 Unemployment in the State has been growing rapidly. The chronic unemployment, especially among the educated manpower, continues to be the most serious problem faced by the state. The live register figures of the employment exchanges are generally taken as a tentative indicator of the magnitude of unemployment in the state. There were about 16 lakh jobseekers in the live register of employment exchanges 1980. This rose to 34 lakhs in 1990 and further to 37 lakhs by the end of 1991. The district wise distribution of work seekers (general) by the end of 1991 is given in Table 2.4.

TABLE 2.4

District-wise Distribution of Work Seekers (General)
as on 31-12-1991

Sl. No.	Districts	No.
(1)	(2)	(3)
1.	Thiruvananthapuram	692667
2.	Kollam	290239
3.	Alappuzha	335343
4.	Pathanamthitta	161166
5.	Kottayam	302625
6.	Idukki	119652
7.	Eranakulam	426310
8.	Thrissur	296352
9.	Palakkad	225944
10.	Malappuram	188699
11.	Kozhikode	268049
12.	Wayanad	54342
13.	Kannur	212613
14.	Kasaragod	64803
Total		3638804

Source: Directorate of Employment & Training

Distribution of Work Seekers by Educational Levels

2.13 The rapid growth in the level of education of the population gets reflected in the work seekers in the live registers of the employment exchanges. It is seen that the proportion of the educated work seekers (SSLC and above) has been steadily increasing. The percentage of educated work seekers which stood at 51.6 per cent in 1980 rose to 63.0 per cent in 1990 and further to 63.8 per cent in 1991. The 23.2 lakh educated (general) jobseekers consist of 27,799 post graduates, 1.5 lakh graduates, 2.6 lakh PDC certificate holders and 18.9 lakh SSLC holders. The detailed classification of job seekers as per their educational qualifications (general) as given in Appendix 2.6. The skill-wise distribution of the professional and technical work seekers registered with the employment exchanges is given in Appendix 2.7.

Employment in the Organised Sector

2.14 Employment in the organised sector has been virtually stagnant during the late eighties.

During the period from 1970 to 1980 the employment in the organised sector went up by about 3.2 lakhs comprising of 2 lakhs in the public sector and 1.2 lakhs in the private sector. However, the corresponding increase during 1980 to 1990 in the public sector was about 1.38 lakhs, but the private sector employment during the period has gone down by about 8000 as a result of which the net increase in employment in the organised sector was only about 1.3 lakhs. The latest employment statistics in the organised sector show a marginal increase in both public and private sector employment consistent with the growth of state income. The organised employment during the year 1990-91 has registered an increase of about 8000 in the public sector and 24,000 in the private sector. The trend in the growth of employment in the organised sector both public and private is given in Appendix 2.8.

Placement Through Employment Exchanges

2.15 Through employment exchanges 15640 persons got placement in 1990-91 as against 14280 persons in the previous year. During the first half of 1991-92 the employment exchange could arrange placements for 16613 persons as can be seen from Table 2.5. But when compared with the number of registrants, the placements done through the employment exchanges are too insignificant. During the first half of 1991-92, on an average, about 425 employers per month have used the services of employment exchanges as against 500 employers per month during 1990-91.

TABLE 2.5

Placements Through Employment Exchanges

Year	No. of Placements	Monthly average No. of Employers using the Employment exchange
(1)	(2)	(3)
1985-86	13700	403
1986-87	15571	454
1987-88	13869	492
1988-89	15504	473
1989-90	14280	463
1990-91	15640	500
1991-92*	16613	425

* up to September 1991.

Placements Through ODEPC

2.16 Overseas Development and Employment Promotion Consultants Limited (ODEPC) is a government agency mainly engaged to provide placements to persons who seek employment abroad. During the year 1991 this agency helped in securing job to 321 persons in different categories of skills in two countries— 287 persons in Saudi Arabia and 34 persons in Singapore. The category-wise deployment is given in Appendix 2.10.

Self Employment Scheme

2.17 This scheme has benefited 1,24,772 persons till the end of March 1990-91. An amount of Rs. 748.63 lakhs was paid as seed money/lumpsum assistance and the banks advanced Rs. 889.35 lakhs up to March 1991. The expenditure incurred and number of beneficiaries under this scheme are given in Table 2.6.

TABLE 2.6

Self Employment Assistance Scheme

Year	Application received	No. of beneficiaries	Amount disbursed (Rs. lakhs)
(1)	(2)	(3)	(4)
1987-88	18241	1042	6.25
1988-89	13556	13248	79.48
1989-90	10042	4965	29.79
1990-91	10127	4665	27.99
1991-92(*)	10279	33	0.20

(*) Up to September, 1991.

Unemployment Assistance Scheme

2.18 The Government of Kerala have introduced in 1982, the Unemployment Assistance Scheme to provide temporary relief to the unemployed. During the year 1990-91 an amount of Rs. 19.35 crores was disbursed to 2.64 lakh beneficiaries by way of unemployment assistance. During the first half of 1991-92 an amount of Rs. 1.33 crores was disbursed as assistance on this account to 1.90 lakh beneficiaries. The details are presented in Appendix 2.9

Impact of Gulf War

2.19 The Gulf war in 1990 necessitated massive evacuation of the immigrant workers. During October-November 1990, nearly 1.42 lakh Indians were evacuated from Kuwait of which about 70 per cent was from Kerala. A number of them could go back due to the reconstruction needs of the war devastated economies of Kuwait and Iraq. The significant fall in the remittances apparently did not have much impact on the growth of the state economy as shown by the estimates of anticipated growth of the economy in 1991-92.

Population

2.20 The high physical quality of life in Kerala, even comparable to some of the developed regions in the world, is reflected in some of the demographic parameters made available by the 1991 Census.

2.21 According to the provisional results of Census 1991, Kerala has a population of 290.11 lakhs. The decadal growth rate during 1981-91 was only

14 per cent as against 23.5 per cent at the national level. As a result, Kerala's share in total population declined from 3.7 per cent in 1981 to 3.4 per cent in 1991. The district-wise distribution of population is given in Appendix 2.11 and state-wise distribution in Appendix 2.13. Among the districts, Malappuram has registered the highest growth rate (28.74%) and Pathanamthitta the lowest (5.45%). All the districts have shown a declining trend in growth rate during 1981-91 when compared with 1971-81. The district which registered the maximum fall in growth rate is Idukki (26.64% to 11.07%) followed by Wayanad (33.87% to 21.15%). In the case of Malappuram district, the decline observed is negligible (29.43% to 28.74%).

Density of Population

2.22 Density of population is an important indicator of the pressure of population on land. Kerala is the second densely populated state in India with 747 persons per sq. km. in 1991, the first being West Bengal with 766 persons. Among the districts, Alappuzha has the highest density of population with 1408 persons per sq.km. Thiruvananthapuram stands second with 1,341 persons per sq.km. and Idukki has the lowest density with 214 persons. District-wise density of population is given in Appendix 2.11.

Literacy

2.23 In literacy Kerala continues to rank first among the major States while Bihar remained at the bottom in 1991. (See Appendix 2.13). The literacy rate estimated for Kerala in 1991 was 90.59 per cent as against 81.56 in 1981. The male literacy was 94.45 per cent in 1991 in contrast with 87.74 per cent in 1981. The female literacy rate was 86.93 per cent in 1991 compared to 75.65 per cent in 1981 as shown in the Table 2.7.

TABLE 2.7

Literacy Rate

(Per cent)

Census year	Total	Male	Female
(1)	(2)	(3)	(4)
1961	55.08	64.89	45.56
1971	69.75	77.13	62.53
1981	81.56	87.74	75.65
1991	90.59	94.45	86.93

Note: The literacy rates for 1961 and 1971 relate to population aged 5 and above. The rates for 1981 and 1991 relate to population aged 7 and above.

Source: Census of India 1991, Provisional Population Totals, Series 12-Kerala.

Sex Ratio

2.24 Kerala is the only State in India having a sex ratio favourable to females. Kerala has a sex ratio of 1,040 females per 1,000 males in 1991, as

against the All India pattern of 929 per thousand males. Among the districts, Thrissur has the highest sex ratio with 1,088 females per 1,000 males in 1991 as against 1100 in 1981. Except Wayanad and Idukki, all other districts have a sex ratio favourable to females.

Birth and Death Rates

2.25 During 1980 there were 26.8 births and 7.0 deaths per 1000 population in Kerala which came down

to 19.0 births and 5.9 deaths respectively in 1990. The state-wise estimated birth and death rates are given in Appendix 2.15.

Infant Mortality Rate

2.26 The infant mortality rate was only 17ⁱ in Kerala while it was 80 for All India in 1990 as against 40 in Kerala and 114 for All India in 1980. The state-wise estimated infant mortality rate for 1989 is presented in Appendix 2.16.

PRICES, COST OF LIVING AND WAGES

Wholesale Prices

The Wholesale price index of agricultural commodities in Kerala (base 1952-53=100) registered a sharp increase of 22.82 per cent in 1991 i.e., from 1028.4 in 1990 to 1263.1 in 1991 as compared with an increase of 13.77 per cent in the previous year (See Table 3.1). The upsurge in the wholesale price index during the year under review is mainly attributable to the spurt in prices of oilseeds (43.42 per cent) and condiments and spices (40.54 per cent).

3.2 The price indices of food crops and non-food crops recorded an increase of 12.13 per cent and 34.20 per cent respectively during the year. On the contrary, the wholesale price indices of fruits and vegetables, molasses and plantation crops moved down marginally by 0.03 per cent, 1.90 per cent and 2.37 per cent respectively during the same period.

3.3. The month-wise wholesale price index of agricultural commodities in Kerala during the year 1991 is given in Appendix 3.1. The price index of oilseeds which stood at 2034 in January 1991, registering an increase of 33.31 per cent. The price index of condiments and spices reached an all-time high of 2123 in May 1991 from 1209.2 in January 1991, representing an increase of 75.60 per cent. However, the price index of rice remained unchanged throughout the year. The indices in respect of molasses, condiments and spices, and fruits and vegetables were erratic.

Retail Prices

3.4 The retail price of 22 items of essential commodities at the end of 1989, 1990 and 1991 are given in Table 3.2. The consumer items, experienced larger spurt in prices in 1991 than during a year ago. The only exception to this was that of onion and sugar.

3.5 In respect of rice, the open market price exhibited an increase of 33.14 per cent. At the end of December 1991, the average price of rice in the open market was Rs. 6.99 per Kg. as against Rs. 5.25 per Kg. at the end of 1990.

3.6 Marked increase was observed in the prices of pulses. Greengram, blackgram, redgram and dhall also recorded substantial increase in the retail prices to the tune of 13.22 per cent, 11.33 per cent, 20.83 per cent and 41.82 per cent respectively. The increase in the prices of chillies was phenomenal at 216.24 per cent.

3.7 The prices of edible oils also showed an upward trend. When the price per Kg. of coconut oil increased by 83 per cent during 1991, the increase registered in prices per Kg. of groundnut oil and refined oil was 35.88 per cent and 37.80 per cent respectively.

3.8 The month-wise details showing the State average of retail prices of essential commodities is given in Appendix 3.2.

TABLE 3.1

Wholesale Price Index of Agricultural Commodities 1989-91

(Base 1952-53=100)

Crops	Weight	Wholesale Price Index			Percentage change over Previous year	
		1989	1990	1991	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Food crops	63.5	725.1	834.8	936.1	15.13	12.13
Rice	40.4	544.4	591.7	638.1	8.69	7.84
Condiments and Spices	10.4	754.2	1097.5	1542.4	45.52	40.54
Fruits and Vegetables	10.7	1342.2	1449.8	1449.3	8.02	(-)-0.03
Molasses	2.0	909.1	1081.8	1061.2	18.99	(-)-1.90
B. Non-Food Crops	36.5	1214.6	1365.1	1832.0	12.39	34.20
Oil seeds	25.5	1411.0	1562.1	2240.4	10.71	43.42
Plantation Crops	11.9	760.5	909.7	888.1	19.62	(-)-2.37
C. All Crops	100.00	903.9	1028.4	1263.1	13.77	22.82

Source: Department of Economics and Statistics

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TABLE 3.2
Average Retail prices of Essential Commodities

SLNo.	Commodity	Unit	Price as at the end of December			Percentage Variation in	
			1989	1990	1991	1990 over 1989	1991 over 1990
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Rice	Kg.	5.20	5.25	6.99	0.96	33.14
2.	Greengram	"	10.34	10.59	11.99	2.42	13.22
3.	Blackgram	"	11.63	12.44	13.85	6.96	11.33
4.	Redgram	"	7.42	7.73	9.34	4.18	20.83
5.	Dhall	"	12.20	14.30	20.28	17.21	41.82
6.	Coconut oil	"	25.95	30.56	56.04	17.76	83.38
7.	Groundnut oil	"	26.98	32.72	44.46	21.28	35.38
8.	Refined oil	"	44.05	47.30	65.18	7.38	37.80
9.	Tapioca	"	2.05	2.05	2.16	..	5.37
10.	Banana	"	4.81	5.56	6.64	15.59	19.42
11.	Milk (cow)	Litre	5.25	5.40	6.75	2.86	25.00
12.	Egg (hen)	Dozen	7.92	8.10	10.57	2.27	30.49
13.	Potato	Kg.	3.26	3.95	5.79	21.17	46.58
14.	Coriander	"	11.86	12.81	17.61	8.01	37.47
15.	Chillies (dry)	"	17.82	17.12	54.14	(-)-3.93	216.24
16.	Onion	"	3.61	4.65	4.26	28.81	(-)-8.39
17.	Sugar	"	8.08	8.37	8.46	3.59	1.08
18.	Coconut (without husk)	100	245.36	283.76	472.14	15.65	66.39
19.	Fire wood (Local Split)	Qtl.	63.14	66.14	72.50	4.75	9.62
20.	Washing Soap (Sunlight)	Each	3.73	3.78	4.48	1.34	18.52
21.	Electric Bulb	Each	6.34	6.70	8.21	5.68	22.54
22.	Baby Food	"	60.04	59.93	74.08	(-)-0.18	23.61

Source: Department of Economics and Statistics

Consumer Price Index

3.9 The consumer price index (cost of living index) numbers for Agricultural and Industrial Workers in the State during the year under review witnessed more than 10 per cent increase in all the selected centres as compared with less than 10 per cent increase a year ago (See Table 3.3).

3.10 The percentage variation in State average consumer price index during 1991 was two-and-a-half times higher as compared to the previous year. In other words, the rate of inflation was higher during the year under review.

3.11 Appendix 3.3 provides the monthly average indices of consumer prices in the 15 selected centres of Kerala.

TABLE 3.3
Annual Average Consumer Price Index Numbers in Selected Centres of Kerala

(Base 1970=100)

Sl.No.	Centre	Average Annual Index Number			Percentage variation	
		1989	1990	1991*	1990 over 1989	1991 over 1990
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Thiruvananthapuram	420	439	495	4.52	12.76
2.	Kollam	437	459	512	5.03	11.55
3.	Punalur	401	427	484	6.48	13.35
4.	Alappuzha	411	429	490	4.38	14.22
5.	Kottayam	419	440	497	5.01	12.95
6.	Mundakayam	404	434	494	7.43	13.82
7.	Munnar	395	420	484	6.33	15.24
8.	Ernakulam	400	420	477	5.00	13.57
9.	Chalakydy	415	435	496	4.82	14.02
10.	Thrissur	400	423	479	5.75	13.24
11.	Palakkad	406	429	483	5.67	12.59
12.	Malappuram	424	451	513	6.37	13.75
13.	Kozhikode	419	441	498	5.25	12.93
14.	Meppady	419	449	510	7.16	13.59
15.	Kannur	419	436	496	4.06	13.76
State Average		413	435	494	5.33	13.56

*11 months average

Source: Department of Economics and Statistics

Parity Index

3.12 The index number of parity between prices received and prices paid by farmers is a measure of relative gains or loss of farmers consequent on price fluctuations in the economy.

3.13 The price parity index for the 10 months in 1991 was relatively more favourable than in the previous year (See Table 3.4), a seven point increase in 1991 over 1990, which indicates that farmers were better off during this period as compared to the previous year.

TABLE 3.4
Index Number of Prices Received and Prices Paid by the Farmers
(Base 1952-53=100)

Year	Price Received by Farmers	Farm Cultivation Cost	Domestic Expenditure	Prices paid by Farmers	Parity Col. 2 as % to Col. 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
1990	1072	1728	945	1277	84
1991*	1288	1878	1066	1415	91

*Figures for 1991 are the average of 10 months (upto October)

Source: Department of Economics and Statistics

3.14 During the year under review, the prices received by farmers went up by 216 points as against a rise of 55 points during the previous year. In respect of prices paid by farmers, the Index rose by 139 points as against an increase of 77 points during the previous year. Eventhough there was relative improvement in the economic position of farmers, the terms of trade still remained unfavourable.

Farm Commodity Prices

3.15 The behaviour of farm prices of commodities except that of ginger reflected an increasing trend during 1991. (See Table 3.5). The average farm prices of food crops viz., paddy and tapioca increased by 10.37 per cent and 2.42 per cent respectively. Substantial increase in prices was recorded in the case of arecanut (48.92 per cent), followed by coconut (37.22 per cent). However the average farm prices of ginger showed a declining trend. The average farm price of ginger which stood at Rs. 2557.36 per Quintal in 1990 declined to Rs. 2376.54 per Quintal in 1991, showing a decline of 7.07 per cent.

TABLE 3.5
Average Farm Price of Principal Crops
(In Rs.)

Commodity	Unit	1987	1988	1989	1990	1991*	Changes over 1990	Percentage Change
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Paddy	Q.tl.	249.41	277.43	302.79	286.93	316.68	29.75	10.37
Tapioca	Q.tl.	105.54	96.86	118.07	147.14	150.70	3.56	2.42
Coconut	100 Nos.	261.25	284.32	213.32	246.84	338.71	91.87	37.22
Pepper	Q.tl.	5262.07	3546.83	4227.00	3010.41	3316.24	305.83	10.16
Ginger	Q.tl.	1395.04	1537.96	1929.08	2557.36	2376.54	-180.82	-7.07
Cashewnut	Q.tl.	1364.35	1093.84	1156.40	1180.40	1408.59	228.19	19.33
Sugarcane	(Metric tonne)	249.08	301.64	306.57	365.69	392.79	27.10	7.41
Arecanut	100 Nos.	9.81	12.29	11.89	19.91	29.65	9.74	48.92
Banana	100 Nos.	68.83	61.36	65.38	74.13	75.43	1.30	1.75

*Average upto 10/91

Public Distribution System

3.16 Market intervention operations in food-grains are essentially targetted at regulating prices, through, procurement, buffer stock operations and distribution under Public Distribution System (PDS). The distribution prices are deliberately kept below the economic cost in order to keep these items within the reach of the vulnerable sections of the society. The difference in prices is being reimbursed to the Food Corporation of India (FCI) as subsidy. The PDS in the country is being revamped to make the system more efficient and to ensure greater access to the weaker sections.

3.17 Through a well designed network of ration shops the PDS in Kerala reaches out to all the

households in the State and ensure the supply of essential commodities at reasonable prices. The PDS assumes an added significance in the context of Kerala's food deficit to the extent of about 60 per cent. The system continues to be a major component of our strategy to improve the welfare of the people. Essential items like rice, wheat, sugar, kerosene and palmolein oil are channelised through PDS.

3.18 As on January 1992 there are 13028 authorised retail outlets. On an average there is one outlet for every 389 households. The number of ration cards increased from 49.98 lakhs in 1990 to 50.56 lakhs in 1991 as shown in Table 3.6.

TABLE 3.6

Public Distribution System-Kerala, A Profile: 1988-1991

Sl. No.	Item	Unit	1988	1989	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	No. of ration cards and permits as on 1st April					
(a)	Ration cards for families	No	4807111	4907648	4997944	5056386
(b)	Ration permits for institutions	No	6873	7523	8193	8542
2.	No. of FCI Sub Depots as on 1st April	No	15	19	20	19
3.	No. of wholesale Shops (As on 1st April)					
(a)	Co-operatives	No	48	47	47	50
(b)	Others	No	249	247	262	248
(c)	Total whole sale shops	No	297	294	309	298
4.	No. of Retail Shops (as on 1st April)					
(a)	Co-operatives	No	1251	1252	1234	1183
(b)	Others	No	11577	11653	11745	11831
(c)	Total Retail Shops	No	12828	12905	12979	13014
5.	Quantity of Coars cloth		133	..	..	..
6.	Sugar (allotted)	M.T.	140853	148353	150853	144507
7.	Palm oil ,,	M.T	64350	30500	71000	2900
8.	Kerosine ,,	KL	307386	321575	338462	334446

Source: Directorate of Civil Supplies

3.19 The cards are being renewed now. As a result there will be 49.89 lakh cards covering a population of 2.72 crore with 2.21 crore adults and 51 lakh non-adults. Though there is only about 1.5 per cent increase in the number of ration cards, the population covered under rationing has increased by almost 5 per cent.

3.20 During the year 1991, the distribution of rice through PDS increased from 1649273 tonnes to 1671398 tonnes, representing a growth rate of 1.34 per cent. The distribution of wheat registered a significant increase of about 43 per cent in 1991. Thus the quantity of wheat distributed, increased from 232332 tonnes in 1990 to 332706 tonnes in 1991 as can be seen from Table 3.7

TABLE 3.7
Distribution of Rice & Wheat through the Public Distribution System 1988-91

Month	(Tonnes)							
	Rice distributed				Wheat distributed			
	1988	1989	1990	1991	1988	1989	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
January	142596	125000	199950	133509	9013	14691	19900	28564
February	134605	99999	125000	125622	10819	15360	19679	19950
March	124886	100000	123809	135850	8812	15659	18911	23722
April	125000	100000	121983	136108	10517	14891	15269	28966
May	124226	100000	124999	105786	11345	14868	19200	28632
June	124970	100000	125000	133584	13554	14999	19718	28409
July	124994	100000	134616	139959	14824	15000	20000	28140
August	144997	100000	154997	162013	14783	15000	19974	29480
September	125000	120000	132382	149840	14778	19044	19838	29993
October	125000	100000	136665	149520	14743	24847	19931	29983
November	125000	124986	139014	150000	13931	24879	19970	29994
December	124990	100000	130858	149607	13331	20000	19942	26873
Total	1546264	1269985	1649273	1671398	150450	209238	232332	332706

Source: Directorate of Civil Supplies.

3.21 The Government of India has increased the issue price of rice and wheat with effect from 28-12-1991 and that of kerosene oil from 1-1-1992. The Government of Kerala has decided not to shift the burden of increase to the card holders by raising the retail prices. As a result, the State has to bear the burden of additional subsidy to the tune of about Rs. 13.35 crores per month.

Kerala State Civil Supplies Corporation

3.22 With a view to check the rising prices of essential commodities and to ensure its availability through out the State, the Kerala State Civil Supplies Corporation is also operating retail outlets. The Corporation has 7 super markets, 460 Maveli Stores, 9 Mobile Maveli Stores, 9 Petrol bunk and 2 vegetable depots and LPG outlets each.

3.23 Additionally, the Kerala State Civil Supplies Corporation is also extending its helping hand to 1501 Sahakarana Maveli Stores run by Co-operative societies, 34 Maveli Stores, run by Matsyafed, 15 mobile Maveli stores run by local bodies and 1991 ARDs. The Corporation also proposes to establish 3 Maveli Stores in each Assembly

Constituency and 2 outlets for distribution of essential commodities in each Panchayats.

3.24 Pulses, spices, condiments, tea, sugar, Palmolein oil, etc., are being issued to the consumers through the outlets of the Corporation. The issue prices of these commodities are significantly lower than the open market prices. Festival bazar and fairs are also being organised during festival seasons.

3.25 The Government is continuously monitoring the price situation and the availability of all essential commodities in the State. Food Advisory Committees at District, Taluk and Panchayat levels have been set up to monitor the price level. The Government have directed the District Collectors to constitute a monitoring cell for the periodic review of the prices of essential commodities.

3.26 The Government is also making every effort for the effective implementation of the Essential Commodities Act. During the period, April Dec.1991, a total number of 8958 raids were conducted in the State and stringent action is being taken against hoarders and black marketeers. A Consumer Protection Council, to promote and protect the rights of the consumers has also been constituted and the State Commission and the District Redressal Forums have started functioning.

Wages

3.27 With the increase in the wholesale price index of agricultural commodities and cost of living index, the wages, too, had shown an upward trend. The average daily wage rate of skilled workers in agricultural sector increased by 5 per cent in 1990-91 (See Table 3.8) The daily wage of carpenter increased from Rs. 51.82 in 1989-90 to Rs. 54.47 in 1990-91

and that of Mason from Rs. 51.45 to Rs. 53.98 during the same period. The average daily wage rate of unskilled workers in agricultural sector increased by 7 per cent in 1990-91 (See Table 3.9).

3.28 A similar upward trend was noticed in the wage rates of skilled and unskilled workers in the construction sector. Details are given in Tables 3.10 and 3.11.

TABLE 3.8
Average Daily Wage rates of skilled workers in the Agricultural Sector.

Year	Average daily wage rates		% of variation over the previous year	
	Carpenter	Mason	Carpenter	Mason
(1)	(2)	(3)	(4)	(5)
1980-81	19.82	19.78	..	..
1981-82	22.42	22.50	13.12	13.75
1982-83	23.40	23.52	4.37	4.53
1983-84	26.17	26.22	11.84	11.48
1984-85	38.74	38.69	48.03	47.56
1985-86	42.84	42.80	10.58	10.62
1986-87	45.93	45.93	7.21	7.31
1987-88	47.50	47.21	3.42	2.79
1988-89	49.80	49.55	4.84	4.96
1989-90	51.82	51.45	4.06	3.83
1990-91	54.47	53.98	5.11	4.92

Source: Department of Economics and Statistics

TABLE 3.9
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	26.06	15.10	10.51	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
1989-90	33.31	19.63	4.26	5.59
1990-91	35.77	21.11	7.39	7.54

Source: Department of Economics & Statistics.

TABLE 3.10
Average Daily Wages of Skilled Workers in the Construction Sector

Year	Daily wages of Skilled Workers			
	Carpenter		Mason	
	Rural	Urban	Rural	Urban
(1)	(2)	(3)	(4)	(5)
1980-81	18.66	19.33	18.75	19.36
1981-82	22.52	22.87	22.66	23.01
1982-83	27.99	30.68	28.13	30.80
1983-84	33.43	35.00	33.29	35.12
1984-85	36.71	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	51.08	51.92	51.17	52.00
1989-90	53.30	53.66	53.23	53.87
1990-91	57.00	56.00	56.00	56.00

Source: Department of Economics and Statistics.

TABLE 3.11
Average Daily Wages of Unskilled Workers in the Construction Sector

Year	Wages of Unskilled workers			
	Men		Women	
	Rural	Urban	Rural	Urban
(1)	(2)	(3)	(4)	(5)
1980-81	12.30	13.07	9.62	10.22
1981-82	15.22	15.94	11.40	12.22
1982-83	17.85	19.09	13.53	14.44
1983-84	20.29	21.18	14.81	16.10
1984-85	21.90	22.80	16.37	17.38
1985-86	25.31	25.70	19.08	19.42
1986-87	27.66	28.42	21.05	21.93
1987-88	31.31	32.23	23.26	25.34
1988-89	32.92	33.55	25.32	26.79
1989-90	34.15	34.94	26.88	28.26
1990-91	37.00	37.00	30.00	28.78

Source: Department of Economics & Statistics.

AGRICULTURE

The performance of the agricultural sector during 1990-91 was characterised by stagnancy in food-grain production and bouyancy in cash crop production. Eventhough crops like coconut and rubber attained new peaks in production; the productivity of almost all important commercial crops continued to be low with the only exception of rubber. Fisheries sector could also maintain its record level of production during the year.

Rainfall

4.2 Eventhough Kerala has a relatively high rainfall with a normal rainfall of a round 3000 m.m. per annum the pattern of rainfall received from 1980-81 onwards has been erratic. The deviation from its normal distribution pattern has been mainly in the North East monsoon and Summer seasons. The trend of rainfall during the last 10 years reveals that the intensity and spread of rainfall during these two seasons remained continuously low and subnormal. During 1991 the State received an average rainfall of 3106 m.m. which was mostly concentrated during the South West Monsoon (+18%); with more than 75% confined to the 3 months period from June to August. (Vide Table 4.1 and 4.2) Going by the agricultural year June to July the quantum of rainfall received during 1990-91 was only 2482 m.m. which is much less than 2925 m.m. recorded for the corresponding period. in the previous year. In spatial distribution also rainfall pattern showed a disperate picture. During 1991 the highest rainfall was recorded in Idukki (4104 m.m.) followed by Kannur (3569m.m.), Kasar-gode (3430 m.m.), Thrissur (3393 m.m.) and the lowest was in Thiruvananthapuram (2137 m.m.) Data on district wise average rainfall during 1990-91 are given in Appendix 4.1

Land Use

4.3 Land use in Kerala over the last decade reveals that the State could achieve a high degree of land use (56%) as early as 1980-81. The percentage of land use for agriculture was steadily on the increase all through the decade touching a peak of 57.44 per cent by the end of 1989-90. Along with the forest cover (27.83%) the State has reached almost a saturation point (85.27%) in this respect. The trend also brings to focus many positive features which include a steady decline in the extent of land in the categories of "barren and uncultivable land", "cultivable wastes" and "land under miscellaneous tree crops" and substantial increase in "net cropped area" as well as "area sown more than once". The high level of cropping intensity which the State was maintaining all these years (around 132%) also recorded a new peak (135.25%) during 1989-90. The pattern of land use, however leaves much to be desired as explained below. Land use statistics for the last decade is given in Table 4.3.

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Area Under Crops.

4.4 Out of a total cropped area of 30.19 lakh ha. food grain crops accounted for 5.93 lakh ha. (20%). Over the last 10 years there was gradual but continuous shift in area from this category of crops mainly from rice leading to sharp decline to the extent of 2.50 lakh ha. Tapioca, the most important food crop of Kerala, also lost around 1 lakh ha. of area during this period. Among the commercial crops coconut leads in area coverage with 8.64 lakh ha. during 1990-91. The area under coconut during the last decade increased by over 2 lakh ha. The coverage under rubber also increased substantially from 2.37 lakh ha. in 1980-81 to 3.84 lakh ha. in 1990-91. Among the other cash crops, Pepper and Coffee recorded considerable improvement in area while the area under cashew, groundnut, sesamum and cocoa declined. Seasonal and annual crops like pulses, sugarcane, ginger, turmeric, cotton etc have been able to sustain their coverage all these years. Area statistics for the period from 1980-81 to 1990-91 are given in Table 4.4.

Production performance.

4.5 The overall production performance of crops in Kerala during the last 10 years has been largely influenced by the shifts in area. With the steep fall in area recorded under the food crops like rice and tapioca their production levels have sharply declined—that of rice from about 13 lakh tonnes to 10.86 lakh tonnes and of tapioca from 40 lakh tonnes to 27.98 lakh tonnes. Crops like coconut and rubber which have gained in area have repeated their positive performance in the production front as well. The production of 4527 million nuts of coconut and 3.07 lakh tonnes of rubber estimated for 1990-91 are the highest ever recorded for these crops. The production of pepper also attained a record of 54135 tonnes in 1989-90 eventhough the performance could not be repeated during 1990-91 when it fell to 47922 tonnes. Annual crops like Pulses, Sugarcane, Ginger, Turmeric, Banana/plantain, Sweet Potato, Groundnut, Sesamum etc. have more or less maintained the same level of production which they have been maintaining over the last 10 years. On the other hand, production of cashewnut which was on the increase all these years recorded marginal decline from 1.06 lakh tonnes in 1989-90 to 1.05 lakh tonnes in 1990-91. Production statistics pertaining to important crops for the last 10 years are given in Table 4.5

Productivity of Principal Crops in Kerala.

4.6 Eventhough the average agricultural income per unit area is relatively high in Kerala, the physical productivity has been very low particularly in the commercial crops sector. Rubber is perhaps the only exception, the productivity of which has been reasonably high. During 1990-91 the crop found a new peak of 1080 Kg/ha. which is 55 Kg. more than the

previous year. In respect of crops like coconut, pepper, cashewnut etc which are vital for the agricultural economy in view of their wide spread coverage of area, the past trend of productivity has been highly fluctuating. However, the performance of all these crops during 1990-91 has been encouraging with peak level achievements of 5239 nuts/ha. 284 kg of dry pepper per ha and 893 Kgs. Cashew/ha. during the year. The declining trend noticed in the productivity of rice and pulses during 1990-91 against the positive trend maintained during the last two decades is a matter of serious concern. The productivity of tapioca however presents an encouraging trend recording a peak of 19 tonnes per ha. Crop-wise productivity levels during the last decade are given in Table 4.6.

Agricultural Income

4.7 The agricultural income which was more or less stagnant from 1980-81 to 1987-88 picked up substantially during the subsequent years. As per the provisional estimates for the year 1990-91 the primary sector accounted for Rs. 1878 crores at 1980-81 prices (36.79%). Agriculture was the largest contributor of income (93%) in the primary sector followed by forestry (2.4%), fishing (3.4%) and mining and quarrying (1.11%). Agricultural income during 1990-91 was Rs. 1746 crores. Though the sector could maintain the increasing trend for three years in succession the rate of growth reflected clear signs of deceleration. The percentage contribution of the sector in State's net domestic product also declined from 36.9% in 1989-90 to 34.2%. Relevant data are furnished in Table 4.7.

TABLE 4.7
States Primary Sector Income at Constant
Prices 1980-81

Industry of Origin	(Rs. lakhs)	
	1980-81	1990-91
(1)	(2)	(3)
Agriculture	129384	174600
Forestry & Logging	12382	4496
Fishing	7743	6633
Mining & Quarrying	461	2141
Total	149970	187872

Performance of Major Crops

(a) Rice

4.8 The performance of rice during 1990-91 reveals that even with the efforts concentrated under the group farming programme no perceptible improvement could be brought about in the production and productivity of the crop. The average production which was stagnating around 11 lakh tonnes during the last decade, though recorded an increase to 11.41 lakh tonnes in 1989-90 slid back to 10.86 lakh tonnes in

1990-91. The fall in production is accounted for both by fall in area as well as productivity in all 3 seasons. The area statistics show that the shift in area from rice cultivation continued to persist after a temporary halt during 1989-90. The loss in area recorded during 1990-91 was to the extent of 23938 ha. which was mainly in Mundakan (10035 ha.) followed by Virippu (7533 ha.) and Punja (6370 ha.). The fact that there was reduction in area during all the seasons further confirms that it is not a seasonal phenomenon. Though the overall reduction in productivity is only marginal (14Kg.) it is a pointer to the gloomy future to which the rice production scenario is heading. The productivity of rice during the year was only 1942 Kg./ha. against 1956 Kg. attained in 1989-90. The season-wise productivity performance also remained more or less stagnant without any sign of improvement. Mundakan season continued to be lagging behind in the matter of productivity (1859 Kg.) possibly due to the poor coverage of HYV. Though the Summer season dominates in productivity (2205), the area under rice cultivation during this season accounts for only 11.5% of the total area. Season-wise area, production and productivity statistics on rice are given in Table 4.8.

4.9 The vignette of the rice scenario in Kerala is very clear in the sense that the State had to rely more and more on external sources even for maintaining present level of supplies. The disparity in net income per unit area in respect of rice vis-a-vis other competing crops is getting widened day by day making it very difficult to retain the area under this crop. The solution would call for strengthening the income base of the rice growers through a combination of technological improvements like appropriate mechanisation, introduction of high yielding varieties and their popularisation, summer cultivation of all rice fallows with catch crops like pulses etc. The group farming samithis have to be transformed into institutions capable of operationalising these measures.

4.10 Apart from the shift in area the poor performance in high yielding variety coverage also contributes for the decline in rice production. The high yielding variety coverage which has touched a peak level of 2.79 lakh ha. in 1980-81 has plummeted to a very low level of 1.19 lakh ha. in 1987-88. Though the coverage has been showing an increasing trend in the subsequent years the overall coverage is far behind the level of 2.79 lakh ha. attained in 1980-81. During 1990-91 the coverage was 1.62 lakh ha. which was marginally higher than the coverage in 1989-90 (1.55 lakh ha.). The ratio of HYV coverage to the area under rice is the highest in Punja season (66%) followed by Virippu (34%) and Mundakan (15%) (See Appendix 4.2). It is a paradox that the Mundakan season is lagging behind in this respect despite better moisture regime and other favourable climatic features. The scope for securing further increases in rice production therefore lies largely in attaining higher coverage of high yielding varieties during the Mundakan season. Inter seasonal variation in productivity is visible in the case of high yielding varieties also. Though Punja and Mundakan seasons continue to record higher levels of productivity than Virippu, there was marginal decline in productivity levels during these seasons in 1990-91. The trend is also not similar in all the districts. While the productivity of HYV is highest during Virippu in the

districts of Thiruvananthapuram, Kollam, and Ernakulam, it is the Mundakan season which leads in Alappuzha, Palakkad, Wayanad, Kannur and Kasargode. District-wise details are given in Table 4.9. A systematic approach based on a constraint analysis for identifying the factors responsible for such variation is warranted. The nature of the subsidies and their effectiveness requires to be studied in depth.

4.11 Among the districts Palakkad accounts for the largest share in area (26%) and production (29.9%) but in productivity it occupies the third rank (2230 Kg). Even Palakkad district which has all the necessary infrastructure for rice cultivation and where the productivity is reasonably good could not escape from the shift in area from rice cultivation. A shift in the approach for rice development is warranted in favour of concentrating efforts in the districts like Palakkad where better endowments are available for augmenting productivity. Thrissur, Alappuzha, Ernakulam and Malappuram rank next in area coverage. These five districts together would constitute 70 per cent of the area under rice. The districts of Malappuram, Ernakulam and Thrissur call for special attention in view of substantial coverage in area and low level of productivity. District-wise details are given in Table 4.10.

Coconut

4.12 Coconut which covers around 39% of the net cropped area and supports more than 10 million people in Kerala is beset with a number of problems. Out of a palm population of 16 crores more than 2 crores are uneconomic due to either old age, disease or senility. More than 80 per cent of the coconut holdings are rainfed. The level of management meted out to the crop is also sub-optimal. The comfortable price situation prevailing for the commodity during the last two years has created a conducive economic environment for motivating the growers for scientific management. This along with the relatively favourable rainfall situation has helped attaining higher levels of production and productivity during 1990-91. The production which was 4358 million nuts in 1989-90 has touched an all time high of 4527 million nuts in 1990-91. The productivity of 5240 nuts per ha. achieved during 1990-91, though the highest in the last two decades, is much below the potential.

Pepper

4.13 As in the case of coconut, pepper is also a traditional crop of Kerala confronting problems like increasing proportion of uneconomic vines in the existing stock, rapidly spreading quick wilt disease, poor management etc. The performance of the crop in the recent past has been encouraging with the production touching an impressive record of 54135 tonnes during 1989-90. Despite favourable weather conditions this level of production could not be sustained in 1990-91 when it has declined to 47922 tonnes. The quick wilt disease of pepper which is reported to have assumed endemic proportions in the recent past may perhaps be the principal deterrent for increasing production. The productivity of the crop even at its peak level performance was only 323 Kg. per ha. which is just 1/3 of its potential.

Cashew

4.14 The productivity of cashew which was stagnating around a very low level of 650 Kg. per ha. upto the mid of eighties improved its performance considerably during the last 3 years. The productivity was 877Kg. per ha. during 1989-90 and it has further increased to 892 Kg. per ha. However the beneficial impact of this favourable trend has been nullified by the drop in area from 1.23 lakh ha. to 1.18 lakh ha. during the period. Cashew plantations in Kerala are largely concentrated in the districts of Kasargode and Malappuram and many of them are old with low productivity requiring large scale rehabilitation.

Plantation Crops

4.15. The production of natural rubber in Kerala during 1990-91 was 307,521 tonnes which shows an increase of 11.7% over the production in the previous year. The all India production during the year was 329,615 tonnes. Consumption of natural rubber in Kerala during 1990-91 increased to 553,65 tonnes from 45,800 tonnes in 1989-90 and all India consumption for 1990-91 was 364,310 tonnes inclusive of an import of 51,942 tonnes.

4.16. Various measures are under implementation to step up the production and productivity of natural rubber in the country. These include grant of financial and technical assistance for new planting and replanting, distribution of high yielding planting materials, popularising rain guarded tapping, spraying against disease and pests etc. Rubber Board continued to promote village level Rubber Producers' Societies (RPSs) which will be small tributaries to the mainstream of the existing co-operative set up for improving rubber processing, marketing and spreading the new technologies to improve rubber production. About 1200 such societies have been organised so far. Production, consumption and price statistics pertaining to Rubber are given in Tables 4.11 to 4.13.

4.17. With regard to the performance of Coffee in Kerala, the year 1990-91 was a boom one abiding by its universal phenomena of binneal fluctuation. The production during the year was 35735 tonnes against the lean production of 23800 tonnes recorded during 1989-90. The increase in production was entirely due to the improvement in productivity from 317 kg. to 476 kg. per ha. In the export front the market sentiments that prevailed during 1990-91 were gloomy consequent to the repeal of the International Coffee Agreement. The export during 1990-91 was only 100110 tonnes against 134052 tonnes in 1989-90. Coffee released for internal consumption during 1990-91 was also lower at 54152 tonnes as compared to 63328 tonnes in 1989. With the suspension of global quota and the overall slump in the international market new policy initiatives are warranted for salvaging the Coffee Economy. The average export auction price of Plantation A, Arabica, Cherry—AB and Robusta Cherry—AB were lower in 1990 at Rs. 1841, Rs. 1446 and Rs. 1022.75 per 50 kg. respectively against Rs. 1848.50, Rs. 1544.50 and Rs. 1288.50 in 1989.

4.18. The production of tea in Kerala during 1991 was only 61780 tonnes which is marginally less than 64025 tonnes achieved in the previous year. In

1990 the country earned Rs. 1028.2 crores foreign exchange by exporting 199.66 million kg. as against earnings of Rs. 824.06 crores in 1989 when the export was 204.67 million kg. The higher revenue earnings were possible on account of high unit price realisations at Rs. 51.50 per kg. as against the previous year's Rs. 40.26 per kg.

4.19. The production of cardamom during 1990-91 was 2885 tonnes which was higher than the production of 1900 tonnes in 1989-90. Indian cardamom which was once a major foreign exchange earner has lost its grounds in the foreign markets due to the stiff competition from Guatemala. The export during 1990-91 was a meagre 379 tonnes which is no way comparable to the prestigious export record of around 2000 tonnes the commodity was maintaining throughout the last two decades. The Spices Board has initiated a number of promotional measures to recapture the market. The activities sponsored by the Board during 1990-91 with this objective include the 5 day international seminar held at Cochin, participation in four international food fairs, organisation of the first world spices congress at Bangalore, quality improvement through training programmes. The average auction price of cardamom marginally declined to Rs. 252.17 per kg. from Rs. 266.73 per kg. in 1989-90.

Overall Trend in the Performance of Different Categories of Crops

4.20. The indices of area, production and productivity of major categories of crops for the period from 1978-79 to 1990-91 are given in Table 4.14. The index of overall agricultural production which was 100.17 during the triennium ending 1978-79 has increased to 119.43 in 1988-89 and to 123.31 in 1989-90. The index for 1990-91 increased only marginally to 123.38. The area under all crops during the 12 year period has more or less remained stagnant around 101 to 105 points and the overall productivity index has declined from 98.71 to 82.51. In 1990-91 both area index as well as productivity index have declined marginally. Though the index for 1989-90 gave signals of a resurgence in area and productivity of the crop sector, the trend in 1990-91 would indicate that it is not sustainable.

4.21. Among the categories of crops, the area under food grain crops has been continuously on the decline. The index for area was 102.55 for the triennium ending 1978-79 and it has dipped to 69.54 in 1990-91. In 1990-91 also the declining trend continues. The productivity index on the other hand showed an up-trend till 1989-90, when it reached a level of 122.62. However, index for 1990-91 is lower at 121.88. Both cereals and pulses coming under the category of food grains presented almost similar trend with regard to area and productivity. The index of area for cereals declined from 102.59 to 69.61 while the decline was from 101.53 to 68.21 in respect of pulses. The increase in productivity recorded by pulses was significantly higher (from 85.75 to 147) than cereals (96.35 to 121.41).

4.22. In the category of non-food grain crops the area index was steadily increasing all these years and touched its peak level of 120.64 in 1989-90. The marginal decline noticed in 1990-91 is largely confined

to tapioca. Since tapioca is also categorised under the non-food grain crops category, the overall area index for the category as a whole conceals the intercrop adjustments in area that took place between tapioca and other crops like coconut and rubber. The area under tapioca has recorded a very steep fall extending over one lakh ha. during the last 10 years which was more than compensated by the increase in area recorded by coconut and rubber. Tapioca has been included under the group of fruits and vegetables and that is why the area index pertaining to this category was also on the decline. It is interesting to note that among the non-food grain groups there was negative trend in area only under this group. All other groups particularly plantation crops, oil seeds and condiments and spices gained substantially in spatial coverage as revealed by the enormous increases in their area indices. On the contrary, the productivity index for the non-food grain crops as a whole showed a negative trend. Though there was a drastic reduction of 28 points in the productivity index, the real situation on the ground is not as bad as the sharp decline is largely due to the shift in area from high volume low value crops like tapioca to low volume high value crops like Rubber. This is evident from the groupwise trend of productivity index coming under this category. The index of productivity for plantation crops recorded steady increase from 98.74 to 118.21 followed by oil seeds from 101.79 to 112.31 and condiments and spices (88.82 to 101.93). The decline in productivity was confined to drugs and narcotics and fruits and vegetables. The production performance of non-food grains category in general and the plantation crops and oil seeds in particular was very commendable.

Supplies and Services

Improved Seeds

4.23 The establishment of Krishi Bhavans at the Panchayat level not only helped in increasing the supply and service windows in the farm sector but also improved its accessibility within reasonable reach. The preparation of farm-wise programmes and attraction and utilisation of larger amounts of credit for agricultural purpose has not, however, got the required attention. The requirement of certified seeds for rice, pulses and oil seeds is almost entirely met through the departmental channels including those organised under the registered growers programme. So also bulk of the planting material support for the replanting/under planting and fresh planting needs in respect of coconut, pepper and other horticultural crops is also being provided by the departmental nurseries. The supply of high yielding variety paddy seeds during 1990-91 is reported to be 2344 tonnes which is much less than the supply of 4184 tonnes effected during 1989-90. This includes around 1000 tonnes supplied from departmental farms, 950 tonnes from registered growers programme and 2250 tonnes from outside agencies. The meagre turn out of the registered grower's programme by way of actual supplies speaks of the weak base on which the seed plan and the high yielding variety programme has been built up. In respect of tree crops the supply of seedlings which is entirely from government farms, was on the increase. The distribution of coconut seedlings increased from 16.5 lakhs to 18 lakhs. Thanks to

the Centrally sponsored scheme for spices development the supply of rooted pepper cuttings (45.5 lakhs) and tree spices (0.76 lakhs) also increased.

4.24 The supply of fertilizers which has marginally decreased during 1989-90 (212454 tonnes) picked up substantially during 1990-91 touching a peak consumption level of 244380 tonnes. The increase in consumption is all pervasive with incremental consumption in all the three categories. The highest increase is in the nitrogenous group (19%) followed by phosphatic (17%) and potassic (10%). With the increase in consumption the average consumption per unit area has further increased to 81.50 kg./ha. which is perhaps one of the highest levels of consumption in the country. Soil testing laboratories are functional in all the districts and 2.27 samples were subjected to analysis during 1990-91.

4.25 The strategy of need-based application of plant protection chemicals pursued in respect of plant protection has helped the State to reduce the use of plant protection chemicals considerably. The consumption of pesticides which was in a very high level of around 600 to 625 tonnes of technical grade material in terms of active ingredients a decade ago has been gradually reduced to 437 tonnes in 1990-91. The trend is not similar in the consumption of fungicides which has increased from 304 tonnes to 465 tonnes. This is possibly due to the increasing spread of fungal diseases like quick wilt of pepper, Mahali on Arecanut etc. However the area under plant protection treatment is more or less stagnant around 8 lakh ha. all these years. The plant protection activities organised during 1990-91 also include rodent control in 1.06 lakh ha. release of 225 lakh parasites for the control of coconut leaf caterpillar, spraying in 51 lakhs coconut palm against coconut leaf disease and distribution of 5518 plant protection equipment.

4.26 Information and communication support for the farm front is provided by the Farm Information Bureau. The activities of the Bureau for 1990-91 include 950 farm news broadcasts over radio, 10 rural exhibitions, 9 kissan melas and a major exhibition. Trend of progress under selected indicators of agricultural development is given in Table 4.15.

4.27 The Supply of agro machineries through the Agro Industries Corporation during 1990-91 includes tractors (Rs. 43 lakhs), Power tillers (Rs. 210 lakhs), pumpsets and accessories (Rs. 45 lakhs), drip irrigation units (Rs. 29 lakhs) and spare parts (Rs. 21 lakhs). The Corporation also manufactured trailers for tractors, storage bins, sales bunks, mini threshers etc. The total value of items manufactured during the year was Rs. 65 lakhs. Training of tractor drivers is another activity supported by the Corporation and 136 persons were trained.

4.28 The Kerala Agro Machinery Corporation Limited manufactured 3020 power tillers valued at Rs. 14.50 crores during 1990-91. The total sales turnover of the Corporation amounted to Rs. 15.43 crores during the period. The Corporation could improve its performance recording a profit of Rs. 115.12 lakhs against Rs. 96.23 lakhs in 1989-90.

Production Programmes

4.29 The group farming programmes for rice continued during 1990-91 covering 4.18 lakhs ha. and nearly 8.93 lakhs cultivators participated. A number of production enhancement activities were initiated utilising the grant of Rs. 418.68 lakhs made available by Government to the group farming samithies. They include:

(a) Community Nurseries	1930.86 ha.
(b) Soil ameliorants-distributed	18649.25 MT
(c) Irrigation works	746 Nos.
(d) P.P. equipment	2869 Nos.
(e) Power tillers	47 Nos.
(f) Pumpsets	3286 Nos.
(g) Renovation of existing tanks	4 Nos.
(h) No. of Padasekharams covered	12231 Nos.
(i) No. of Agro clinics organised	7889 Nos.

4.30 The Integrated Programme for Rice Development was implemented in Alappuzha, Ernakulam, Thrissur and Palakkad Districts covering the following activities.

(a) Certified seed distributed	21138.65 Qtl
(b) Herbicide	4803.29 ha.
(c) Plant Protection equipment distributed	5167 Nos.
(d) Field demonstrations organised	3387.50 ha.
(e) Power tillers distributed	287 Nos.
(f) Micro nutrients supplied	175343 ha.

4.31 Under the Programmes for procurement and distribution of paddy seed an area of 956 ha. were brought under seed multiplication and 946 tonnes of seeds were distributed. Production and distribution of coconut seedlings amounted to 17.9 lakhs.

4.32 During the year, 5.50 lakhs of vegetable seed packets were distributed in the festival season (Onam). Apart from this 302 Nos. of vegetable gardens were laid out in schools. This is in addition to the 3000 Nos. of Minikits distributed under the 100 per cent Centrally Sponsored Scheme. A total of Rs. 2.21 lakhs has been spent under this programme.

4.33 Under the pulses development programme an area of 4473 ha. were brought additionally under pulses.

4.34 Under the National Biogas Development Project 2662 Nos. of biogas plants were installed during 1990-91.

4.35 The Special Employment Generation programme introduced during 1989-90 with a view to generate additional employment opportunities to the unemployed agricultural labourers in rural areas continued during 1990-91 also. Labour intensive infrastructural development works were undertaken with active public participation and close liaison with the Panchayat and financial institutions. An amount of Rs. 1006.742 lakhs has been spent under this programme during 1990-91.

The details of activities undertaken are given below:

(a) Soil conservation and land Development	50296 Hect.
(b) Irrigation infrastructure	13950 "
(c) On farm development work in Padasekharams	315 "
(d) Land development works for sericulture	3605 "
(e) Infrastructure support for fodder development	1701 "
No. of mandays created	65.13 lakhs

4.36 An Integrated Programme for the Development of spices was implemented in Kerala with 100% financial assistance from the Government of India. Major activities taken up under the programme include production and distribution of 45 lakh rooted pepper cuttings and 71,000 tree spices seedlings, rehabilitation of 2440 ha. pepper gardens and distribution of 55,000 input minikits.

4.37 Under the Special Component Plan and Tribal Sub Plan, location-specific development programmes benefitting the colonies of the targetted group were continued during 1990-91 as well. All the inputs required were made available free of cost to the participating beneficiaries and the investment on infrastructural development by way of irrigation, land development etc., were supported in full under these schemes. During 1990-91 around 1.44 lakh Scheduled Caste families and 12,000 Scheduled Tribe families were benefitted from this programme. Details of physical achievements under these schemes are given in Tables 4.16 (A) 4.16(B).

4.38 The Horticultural Products Development Corporation has organised 10 vegetable villages in Thiruvananthapuram District by extending production and marketing support. A cut flower producers society was also registered under the patronage of the Corporation. Training was imparted to about 600 farmers on orchid and anthurium culture.

4.39 Production of palm oil from the 3645 ha. plantations owned by the Oil Palm India Limited has picked up significantly during 1990-91. The production of crude oil during 1990-91 was 2535 tonnes against 2108 tonnes in 1989-90. The company had a net profit of Rs. 104.55 lakhs during the year.

4.40 The extension wing of the Kerala Agricultural University conducted correspondence courses on "Fresh Water Fish Culture" and "Child Nutrition"; implemented a village adoption programme in thirty villages, organised a national workshop, two state level workshops and 28 training programmes.

4.41 The production of rubber by the Plantation Corporation of Kerala Limited during 1990-91 was 5416 M. T. against 4585 M.T. in 1989-90. The Company sold rubber worth Rs. 15.83 crores and recorded a net profit of Rs. 1.44 crores during 1990-91.

Agricultural Marketing

4.42 Development of marketing facilities is of critical importance in Kerala's agricultural economy in view of the predominance of cash crops. Kerala

holds virtual monopoly in the country in respect of a large number of commodities which include pepper (93%), rubber (92%) cardamom (60%), ginger (53%) and cashew nut (75%). But the State does not have a well organised agricultural marketing infrastructure. Most of the agricultural commodities are handled and controlled by private traders. Co-operative marketing was the only segment under agricultural marketing which received some attention in the past and accordingly a net work of co-operatives were promoted for procurement, storage and marketing of selected agricultural commodities.

4.43 The Kerala State Co-operative Marketing Federation, Rubber Marketing Federation, RAIDCO, CAMPCO, KERAFED, and Cashew Apex Industrial Co-operative Society are the main agencies engaged in the marketing of agricultural produce in Kerala. The commodities handled by the Marketing Federation include copra, pepper and other spices. In a State like Kerala where small and marginal farmers contribute the largest share of marketable Surplus, the co-operative movement can succeed only through organising the services in an integrated manner linking production, procurement, processing and marketing. The marketing co-operatives are yet to imbibe such an approach in their activities. The quantum of commodities handled by them is also very meagre not capable of making any impact in the overall market. The Marketing Federation handled 4550 M. tonnes of copra valued at Rs. 8.43 crores, 987.70 tonnes of pepper and other spices valued at Rs. 2.92 crores during 1990-91. Though the performance is better during the year compared to 1989-90 the quantity handled accounts for only around 1% of copra and 2% of pepper produced in Kerala.

4.44 The Rubber Marketing Federation together with 33 primaries were engaged in the procurement and marketing of rubber. The activities of the Federation during 1990-91 include procurement and marketing of 28662 MT. of rubber valued at Rs. 6270.15 lakhs, and sale of 28795 MT of fertilizers, costing Rs. 490.00 lakhs. Aerial spraying was organised in 60,000 acres for the control of rubber diseases during 1990-91 against 44,650 acres covered in 1989-90.

4.45 The General Marketing Federation and the Rubber Marketing Federation are acting as wholesale distributors of fertilizers in the co-operative sector. The quantity of fertilizers distributed by the sector was around 87,000 MT nutrients during 1990-91.

4.46 The Central Arecanut and Cocoa Marketing and Processing Co-operative Limited (CAMPCO) is a joint venture of Kerala, Karnataka Governments engaged in the marketing of arecanut and cocoa. CAMPCO had a network of 53 procuring centres and 17 sale depots for arecanut as on 31-3-1991. The quantity of arecanut handled by CAMPCO during 1990-91 aggregates to 1997.30 tonnes valued at Rs. 85.44 crores against 2399.90 tonnes valued at Rs. 67.10 crores, in 1989-90. Procurement of cocoa was also organised through 25 procuring centres. The quantity handled was 302 metric tonnes valued at Rs. 176 lakhs against 330 metric tonnes valued at Rs. 161 lakhs in 1989-90.

4.47 The Cashew Workers Apex Industrial Co-operative society (CAPEX) had been entrusted with the procurement of cashew through designated co-operative societies. During 1990-91, the Federation procured 82672 metric tonnes of cashew costing Rs. 104.33 crores. The Kera Karshaka Sahakarana Federation Limited, registered in 1987 as an agency for implementing the integrated project for coconut development with assistance from NCDC/EEC has extended its activities to all the districts during the year. By the end of 1991 the Federation could enlist 898 PACS as members against 900 originally targetted. The first among the 3 oil processing complexes contemplated with a capacity of 200 tonnes of copra per day each, has already been commissioned at Karunagappally in Kollam district in April 1991. Since May 1989 the Federation is procuring copra from its member societies and the quantity procured during 1991 is around 11,000 tonnes. The first product of the Federation namely the two stage filtered coconut oil 'Kera' is already in the market. The second processing complex is expected to be commissioned in 1992 at Vaduvannur in Kozhikode district. With the commissioning of all the 3 processing complexes as contemplated in the project, the Federation would be handling around 2/3 of the copra produced in Kerala. Details of agricultural commodities handled by the co-operative institutions during 1990-91 were given in Table. 4.17. The fruit processing unit functioning under the Kerala Agro Industries Corporation has manufactured 387.5 MT of fruit products like pineapple jam, mixed fruit jam, cut mango pickles, tender mango pickles, garlic pickles, lemon pickles, pineapple syrup, mango syrup, orange syrup, orange squash, mango squash, mango juice, pineapple juice etc. during 1990-91.

4.48 The Kerala State Warehousing Corporation has 63 centres with a total capacity of 142,631 MTs. The Corporation has hired godowns to the tune of 30,233 MTs. Besides providing scientific storage to agricultural commodities, the Corporation had diversified its activities by undertaking processing of pepper on behalf of exporters, procurement and storage of copra on behalf of NAFED and Rubber on behalf of STC etc.

4.49 Regulated markets are functioning in the Malabar region of Kerala under the Malabar Marketing Committee which was constituted in 1950 by the Government of Madras under the old Madras Commercial Crops Market Act of 1933. The District Collector, Kozhikode is in charge of the marketing Committee from 1959 onwards. The committee has enhanced the rate of license fee leviable under the Act with effect from 1-1-1991. The revised rates are given below:

(i) for using a place for purchase and sale of any notified commodity.	Rs.	50.00
(ii) using a place for storage, weighing, processing etc., of any one commodity.	Rs.	12.50
(iii) For practicing as weighman	Rs.	5.00
(iv) for Brokers	Rs.	10.00

The committee has issued 14760 licenses for dealing in coconut, 6886 for arecanut, 5090 for weighman and for broker during 1990.

4.50 Grading of agricultural commodities under the 'Ag mark' grading scheme was continued by the Marketing wing of the Department of Agriculture. The achievements in this regard during 1990-91 have been lower than those in 1989-90 as could be seen from the following Table.

TABLE—4.18

Commodities graded under Agmark 1985-86 to 1990-91
(Quantity in Quintals)

Year	Coconut Oil	Gingelly Oil	Honey	Ground Spices
(1)	(2)	(3)	(4)	(5)
1985-86	35015	6502	879	1411
1986-87	33697	7459	366	1391
1987-88	66990	10270	1496	1157
1988-89	27840	404	615	511
1989-90	27294	842	1964	511
1990-91	15239	698	1467	1069

Agricultural Credit

4.51. In Kerala Co-operatives and Commercial Banks together constitute the main source of production finance in the agricultural and allied sectors. The organised sector has attained a commanding position in the dispensation of rural credit over the years.

4.52. The credit operations of the Co-operative Credit Institutions consisting of Kerala State Co-operative Bank, 14 District Co-operative Banks, 1579 Primary Agricultural Credit Societies, Kerala State Co-operative Agricultural and Rural Development Bank and the Primary Agricultural Development Banks include those financed from own funds as well as refinance from NABARD. The commercial banks operate through the net work of 2839 branches in Kerala.

4.53. National Bank for Agriculture and Rural Development is providing refinance support for a wide range of investments in the agricultural front under the schematic lending programmes of the Co-operative and Commercial Banks. The amount of refinance has touched an all time high of Rs. 81.59 crores in 1990-91 against Rs. 71.26 crores in 1988-89 and Rs. 80.08 crores in 1989-90. However, the growth during 1990-91 is only 2 per cent compared to the growth rate of over 12 per cent recorded during 1989-90. The share of Kerala in the All India disbursement also has come down from 4.7% to 4.3%. These disturbing trends are entirely due to the poor performance of the co-operative sector. Among the financing agencies, the Commercial Bank absorbed the highest amount of refinance. The Commercial Banks had improved their performance considerably both in absolute and relative terms. On the other hand the co-operative banking sector in general and the Kerala State Co-operative bank in particular present a dismal picture. The decline is not only in their relative share but also in the quantum of disbursement as well. Agency-wise distribution of refinance is given in Appendix 4.3 (a). A purpose-wise analysis of the refinance shows that even though the plantation/horticulture sector continues to be the major supporting segment, its relative share has come down from 32.6% in 1989-90 to 27.6% in 1990-91. The deceleration in the disbursement of credit to this vital sector which

is in urgent need of investment credit for its revitalisation is a matter of serious concern. The flow of refinance to IRDP also declined from Rs. 16.31 crores to Rs. 15.70 crores. It appears that the flow of bank credit in the organised sector is gradually being shifted in favour of non-farm sector as could be seen from the increase of its share from 13.5% to 16.1% during the year. The only silverlining in the otherwise bleak scenario of long term agricultural finance in Kerala was the encouraging performance of the minor irrigation sector registering an increase of 4% in its relative share. The disbursement in absolute terms has increased from Rs. 10.94 crores to Rs. 15.12 crores. A purpose-wise disbursement by NABARD is given in Appendix 4.3(b). The co-operative sector which could not uphold its dominating share during 1990-91 is seen to have absorbed a higher dose of share capital support during the year as revealed by the increase in the assistance from the L.T.O. fund of NABARD from Rs. 171.22 lakhs to Rs. 221.41 lakhs.

4.54. Commercial Banks have performed well in disbursing rural credit. The disbursement to the priority sectors during 1990-91 was to the tune of Rs. 983.42 crores against Rs. 914.16 crores during 1989-90. Agriculture and allied sectors accounted for the largest share of Rs. 488.87 crores followed by the tertiary sector, Rs. 346.45 crores and SSI sector Rs. 148.10 crores. The advances outstanding against weaker sections as on 1990-91 constitute Rs. 748 crores which is 16.12% of the total advances outstanding. The performance of the commercial banking sector under poverty alleviation programmes like IRDP, DRI, Self-employment Programme etc., was also encouraging. During 1990-91, the banks have supported 60877 families under IRDP, 6036 persons under self-employment schemes, 6968 beneficiaries under Urban Micro Enterprises coming under Nehru Rozgar Yojana. Commercial Banks also financed setting up of 3695 biogas plants in the rural and semi-urban centres with subsidy assistance from Government during 1990-91.

Short and Medium Term Co-operative Credit

4.55. The total loan disbursed by the Kerala State Co-operative Bank as on 30-6-1990 was Rs. 466.91 crores which includes short term agricultural credit of Rs. 93.96 crores and medium term agricultural credit of Rs. 13.14 crores.

4.56. The Primary Agricultural Credit Societies had a membership of 89.27 lakhs, the average membership per society being 5647. The borrowing members constituted 44.6%. The proportion of borrowing members to total members increased from 37.3% in 1989-90 to 44.6% in 1990-91. The share capital of the societies increased from Rs. 8008 lakhs to Rs. 8630 lakhs with an impressive increase in the average share capital per society from Rs. 5.06 lakhs to Rs. 5.47 lakhs. Similar trend was noticed in the working capital base also which increased from Rs. 122511 lakhs to Rs. 130931 lakhs during the period. The average working capital per society worked out to Rs. 82.92 lakhs. All these positive features do not appear to have helped in pushing the loan disbursement which on the contrary recorded a fall from Rs. 785.29 crores to Rs. 713.52 crores, a steep fall of Rs. 71.77 crores (9.14%) in one year. In the matter of repayment also the performance was not satisfactory. The loan outstanding as on 30-6-1991, was Rs. 974.66 crores and the

amount overdue was Rs. 262.17 crores. The percentage of loan overdue had increased from 26.3 in 1989-90 to 26.9 in 1990-91.

4.57. The withdrawal of interest subsidy on co-operative agricultural loans since 28-2-1990 and the introduction of Agricultural Debt Relief Scheme 1990, had affected the recovery position. Under Kerala component of National Agricultural Debt Relief Scheme 1990, 50% of expenditure has to be met by Government of India and the remaining 50% by State Government. The total relief sanctioned aggregated to Rs. 81.79 crores. NABARD had released Rs. 56.66 crores (50% grant and 50% loan) during 12/90 and the balance amount is pending release. Agency-wise details are given below:

Particulars	Kerala State Co-operative Bank (Rs. crores)	Kerala State Co-operative Agricultural & Rural Development Bank (Rs. crores)
(1)	(2)	(3)
1. Total amount of relief sanctioned under ADR scheme	69.71	12.08
2. Amount released by NABARD during 12/90 (50% grant and 50% loan)	46.66	10.00
3. Balance pending release	23.05	2.08

4.58. The performance of the co-operatives in deposit mobilisation shows a very encouraging picture. Against a target of Rs. 60.00 crores the co-operatives were able to mobilize Rs. 289 crores during 1990-91. Even with an overall encouraging record of strong and growing financial base, majority of the primary co-operatives have been incurring losses. The number of societies working on profit was only 678 and the picture was better a year ago with 686 societies under this category. The selected indicators of the performance and credit operations of the primary agricultural credit societies during 1988-89 to 1990-91 are given in Appendices 4.4 and 4.5. Eighty per cent of the advances are short-term loans, but about two-thirds of them are for non-agricultural purposes. During 1980-90, while the short-term agricultural loans increased 2½ times (from Rs. 92.64 crores to Rs. 227.95 crores), short-term non-agricultural advances increased 5½ times (from Rs. 75.76 crores to Rs. 414.16 crores). While this has perhaps helped to mitigate to some extent the problems of the PACS, with their high-cost deposits, it also explains the paradox of an apparently strong rural co-operative credit structure and poor growth in agriculture. At the same time, it raises basic questions for careful inquiry. Is it because agriculture per-se is non-munerative? Or, is it because, in the context of the very small size of holdings, agriculture has ceased to attract concentrated effort? Or, is it because the credit structure is not equal to the task and is contenting itself with the easier one or gold loans and the like?

Long-Term Credit

4.59. Long-term credit operations under the Co-operative Sector are supported by the Kerala State Co-operative Agricultural and Rural Development Bank through its 43 affiliated primaries. During the financial year 1990-91, the Bank had advanced a total loan of Rs. 81.18 crores as long term loan for agricultural purposes which included Rs. 12.62 crores by way of ordinary lending, Rs. 24.86 crores as schematic lending, Rs. 9.35 crores for non-farm activities and Rs. 34.34 crores for rural housing. The debentures floated by the Bank as on 31-3-1991 amounted to Rs. 369.88 crores. The Bank's lending activities extended over a wide range of activities covering irrigation, farm mechanisation, land development including soil conservation, reclamation, cultivation of horticultural/plantation crops like coconut, rubber, cashew, coffee, pepper, etc. and for other diversified activities like dairy, fishery, poultry, gobar gas, goat rearing, sericulture etc. The Bank had also advanced loans for small scale rural industries allied to agriculture under a NABARD scheme and also implemented a rural housing scheme with the assistance of National Housing Bank. The purpose-wise loan disbursement under ordinary and schematic lending by the Bank are given in Appendices 4.6 & 4.7.

4.60 The National Co-operative Development Corporation's activities are aimed at developing co-operatives as vital instruments of agricultural economy and rural growth by providing technical and financial support. The flow of finance to Kerala from this National agency has been steadily on the increase. During 1990-91 assistance from the Corporation to the State has touched a very impressive level of Rs. 26.41 crores against Rs. 14.60 crores in 1989-90. The purpose-wise release is given in Appendix 4.8. The financial assistance provided during 1990-91 to Kerala is 10.16% of the total release by NCDC in the country. The finance from the Corporation is mainly based on long term projects covering production procurement, processing, storage and marketing of agricultural commodities as well as for supply of consumer goods in rural areas. The integrated programme for coconut implemented by KERAFED, Fisheries project by Matsyafed, I.C.D.P. implemented by the District Co-operative Banks of Palakkad, Wayanad, Kottayam and storage project implemented by primaries are the major activities supported by NCDC in Kerala.

Soil and Water Conservation.

4.61 The high rainfall pattern and the undulating terrain make Kerala soils vulnerable to soil erosion. Agricultural lands as well as forest land, extending over 15 lakh ha. need effective soil conservation measures for sustaining the inherent productivity. But the pace of implementation of the soil

conservation activities in the State is rather slow and the cumulative coverage till the end of 1989-90 was only 96783 ha. which accounts for 6.45 percent of the vulnerable area. The coverage during 1990-91 is reported to be 1881 ha.

Soil Survey

4.62 The Soil Survey organisation in the State has been restructured during the year 1990-91, with the objective of providing one soil survey field unit each in all the 14 Districts of the State. Detailed Soil Survey works are in progress in the Taluks of Adoor, Chengannur, Vaikom, Talappally, Chittur, Palaghat and Badagara. Reconnaissance Soil Survey of Kanjirappally and Kunnathunad taluks have been completed and works are in progress in Eranad taluk. Soil Survey of Command Areas of Moonankadu, Payaswini and Aralam Irrigation projects were also completed. The total area covered under detailed Soil Survey during 1990-91 was 44752 Ha. and under Reconnaissance Soil Survey 74157 Hects.

Land Use Planning

4.63 Preparation of the land use maps under the centrally sponsored land use mapping project is in progress. During 1990-91 maps of 50 water-sheds in Kasargode district were prepared. The Board also provided collaborative support for planning the Agasthyavanam Biological park project of the Forest Department, Athirappally and Karappara, Kuriarkutty projects of the Electricity Board and Panchayat resource mapping project of the Centre for Earth Science Studies.

Animal Husbandry.

4.64 Livestock management is emerging as an important avenue for income and employment opportunities in rural areas. It is the most important subsidiary occupation for a vast majority of our small/marginal farmers and agricultural labourers. The contribution of the sector in meeting the protein requirements of the State is also substantial. In view of its suitability as a household activity in the highly dispersed settlement pattern of Kerala livestock rearing particularly dairying and poultry rearing received considerable attention in the past leading to a silent growth in the sector.

4.65 According to 1987 Census the Livestock wealth of Kerala consisted of over 37 lakhs of bovine population and 179 lakhs fowls. The trend of livestock population from 1982 to 1987 is given in Table 4.19

TABLE-4.19
Trend in Livestock Population in the State over the Quinquennium 1982-87.

Year	Cattle	Breedable crossbred		Buffaloes	Goats	Pgs	Poultry	Duck
		Female	Male					
		(3)	(4)					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1982	30.97	9.13	2.17	4.09	20.04	1.27	145.19	5.3
1987	34.24	11.57	1.99	3.29	15.81	1.37	170.92	8.46

Source: Cattle Census 1982 and 1987
Department of Animal Husbandry

4.66 Cross breeding programme comprising production and distribution of frozen semen combined with artificial insemination through intensive cattle development units was the main developmental activity vigorously pursued in the Livestock development sector in an organised manner. Kerala Livestock Development Board and the Animal Husbandry Department were the agencies involved. While the KLD Board is responsible for perfecting the frozen semen technology as well as for large scale production and distribution of frozen semen, the Animal Husbandry Department through the Intensive Cattle Development Projects undertakes the responsibility for implementing the artificial insemination programme. During the year 1990-91 the production of frozen semen was higher by 2.28 lakh doses compared to the previous year. Utilization was also higher by 1.66 lakh doses. With the advancement in the embryo transfer technology research initiated by the KLD Board in 1991 the livestock improvement efforts in Kerala is expected to get a further fillip.

4.67 With the sanctioning of a new ICD Project in Idukki during 1990-91 the number of ICDP units in the State has increased to eight. Taking into account the AI Centres run by APCO, Tata and voluntary agencies in addition to those run by the Animal Husbandry and Dairy Development Departments the total number of service points operational for artificial insemination during 1990-91 were 1544. Agency-wise details are given in Table 4.20.

TABLE 4.20

AI Centres in the State as on 31-3-1991

Department/ Institution	No of Centres
(1)	(2)
Animal Husbandry Non ICDP	979
do. ICDP	387
Dairy Development Department	106
APCO	32
Tata	27
Other Voluntary Agencies	13
Total:	1544

4.68 Thanks to the joint effort of the different agencies mentioned above there was an increase of 1.58 lakhs in the number of artificial inseminations conducted during 1990-91 over that of the previous year, the actual coverage being 15.15 lakhs and 13.57 lakhs respectively. The details of production and utilisation of frozen semen and the number of artificial inseminations conducted during the past six years are shown in Table 4.21.

TABLE 4.21

Production and Utilisation of Frozen Semen and Artificial Inseminations conducted from 1985-86 to 1990-91

Period	Production of frozen semen (lakh doses)	Utilisation of frozen semen (lakh doses)	No. of artificial inseminations (lakh No.)
(1)	(2)	(3)	(4)
1985-86	19.12	12.53	11.90
1986-87	18.92	13.64	12.95
1987-88	15.29	13.79	13.10
1988-89	20.12	13.63	12.95
1989-90	23.35	14.29	13.57
1990-91	25.63	15.95	15.15

Source: KLD Board

4.69 The estimates for production of milk, meat and egg during 1990-91 also present an encouraging picture. The milk production increased from 16.00 lakh tonnes to 16.90 lakh tonnes and Egg production from 1500 million nos. to 1550 million, while the production of Meat other than poultry increased from 90000 tonnes to 95000 tonnes. The increase in production of poultry meat was from 20000 tonnes to 22000 tonnes during this period. The comparative figures for 1985-86 to 1990-91 are furnished in Table 4.22

TABLE-4.22

Year-wise estimates of Milk, Egg and Meat Production in Kerala for the years from 1985-86 to 1990-91

Year	Milk (lakh tonnes)	Egg (Million Nos.)	Meat other than poultry (Tonnes)	Poultry Meat (Tonnes)
(1)	(2)	(3)	(4)	(5)
1985-86	12.83	1360	74109	15000
1986-87	13.34	1397	80469	15255
1987-88	14.26	1440	84991	16949
1988-89	15.07	1470	88386	18832
1989-90	16.00	1500	90000	20000
1990-91	16.90	1550	95000	22000

Source: Department of Animal Husbandry

4.70 The activities of Kerala Livestock Development Board deserve special mention. As already stated technology support for artificial insemination combined with mass production of frozen semen and fodder seeds is the main role assigned to the Board. The performance of the Board in all these respects has been good.

As could be seen from Table 4.21 a total of 25.63 lakh doses of frozen semen were produced during 1990-91 against 23.35 lakh doses in 1989-90. The KLD Board was also engaged in Liquid Nitrogen production needed for the processing and storage of frozen semen. By running its 12 Liquid Nitrogen Plants it could produce 4.75 lakh litres of Liquid nitrogen during 1990-91. To stimulate the fodder development programme of the State the Board undertook research for the selection of new varieties of fodder crops and developing package of practices during the year under review and 47.74 MT of fodder seed was produced/procured during the year. The Central sector programme for progeny testing of cross bred bulls was also continued during the year. The Board also continued its training programmes in specialised areas of dairy cattle production in the two training centres at Mattupatty and Dhoni.

4.71 Animal health care programmes in the State are handled by the Department of Animal Husbandry supplemented by KCMMF on a limited scale. The services of the Department are rendered through a net work of veterinary institutions comprising veterinary polyclinics, veterinary hospitals, mobile farm aid units, sub-centres and district veterinary centres. During the year 25 new dispensaries were sanctioned. 17 dispensaries upgraded into hospitals and 50 veterinary sub-centres were upgraded into dispensaries. Appendix 4.9 gives the district-wise distribution of institutions under the Animal Husbandry Department as on 31-3-1991. The veterinary aid provided through these institutions and through domiciliary services was effective vide Appendix 4.10. In all 38.67 lakh animals were treated. This was 7 per cent more than that of the previous year. Also 19.43 lakh animals and 43.80 lakh poultry birds were vaccinated during 1990-91. Besides, 19596 rabies vaccinations were conducted during the year. The massive programme taken up by the department for eradication of rinderpest and foot and mouth disease deserves special mention. The Veterinary Biologicals, Palode has supported the animal health care activities of the department considerably. During 1990-91, 74.29 lakh doses of poultry vaccine and 18.90 lakh doses of livestock vaccine were made available to the Animal Husbandry Department by this institution.

4.72 Though the infrastructure and supporting facilities built up over the years helped in attaining a breakthrough in milk production, the efficiency of artificial insemination as well as productivity of crossbred animals remained low. The rate of calving vis-a-vis number of insemination has been sub optimal. The reduction in calvings during 1990-91 (2.22 lakhs) compared to that in the previous year (2.43 lakhs) despite higher coverage in cross breeding is another pointer to the need for improving the veterinary service. The average productivity of crossbreds in Kerala is also only 5.19 kg which is much below the potential. Another grey area in cattle management is in the area of cattle feed supply. The supplies are not only inadequate but also exorbitantly costly.

4.73 The performance of the departmental poultry farms has not been encouraging during 1990-91. The decrease in the production of chicks and eggs during 1989-90 continued during 1990-91 as well. Though a slight improvement over the low performance of 1989-90 was witnessed during 1990-91, the production

was nowhere near that of 1988-89. While the chicks hatched out were 8.99 lakhs, 8.00 lakhs and 8.07 lakhs for 1988-89, 89-90 and 1990-91 respectively, the production of eggs was 21.55 lakhs, 17.71 lakhs and 18.57 lakhs for these years.

4.74 Poultry feed production in the departmental production units increased to 1617 M.T. during 1990-91 from 1001 M.T. in the previous year. Though this 62% increase in production was certainly remarkable, this was 369 M.Ts. below that of 1988-89.

4.75 The Poultry Development Corporation established in 1989 remained more or less a non-starter during 1990-91 also. The Corporation is in the process of taking up two major projects namely (i) a breeding farm with a capacity of 25000 numbers of broiler parent stock and a hatchery for 28.75 lakh broiler chicks annually and (ii) a poultry feed mixing plant with a capacity of 40 M.T. per shift to manufacture 24000 M.T. of quality poultry feed annually. The Corporation also intends to provide marketing support to the broiler farmers under Special Livestock Breeding Programme by supplying inputs like freezers, bunks and stalls.

4.76 Meat Production in the State during 1990-91 was estimated as 1.17 lakh tonnes providing a per-capita availability of 9 gms. of meat per day. This shows a marginal increase over the previous year's production of 1.10 lakh tonnes. The Meat Products of India continued its dismal performance during the year under review. Due to non-availability of pigs, the major raw material, the capacity utilisation of the factory in respect of production of meat and meat products was only 72%. Further, a major breakdown to the feed manufacturing machinery has brought about a drastic reduction in the production of cattle feed. The feed production during the year was only 1222 M.T.s against a target of 7200 M.T. Consequently the loss suffered by MPI has increased to Rs. 18.65 lakhs during 1990-91 from Rs. 14.20 lakhs during 1989-90.

4.77 Livestock insurance scheme has been introduced in the State to protect the small, marginal farmers and other rural population. United India Insurance Company has covered 17112 calves and the State Government provided subsidy to farmers for the payment of premium to the tune of Rs. 8.92 lakhs during 1990-91. The amount of subsidy provided was 36% higher than the previous year. Year-wise details of subsidy are given in the table. 4.23.

TABLE 4.23
Year-wise Details of Calf Insurance

Year	No. of calves insured under the calf feed subsidy	Amount subsidised (Rs. in lakhs)
(1)	(2)	(3)
1985-86	2436	1.904
1986-87	2174	0.983
1987-88	1432	0.654
1988-89	2186	0.992
1989-90	4115	2.007
1990-91	4769	2.385
Total:	17112	8.925

Source: Animal Husbandry Department.

Dairy Development

4.78 The performance of the Dairy sector during 1990-91 presents a lopsided picture. While the State was going ahead with a very ambitious programme for cattle improvement, it was not being accompanied by organised supporting facilities in areas like fodder development, manufacture of cattle feed etc. Likewise there was very little nexus between the overall increase in milk production and the supplies through the organised channels. The encouraging trend in the production and supply of inputs viz., frozen semen and fodder seed could be maintained by the Kerala Livestock Development Board during 1990-91 also, though the rate of increase was a little lower than that in the previous year. The production of frozen semen was 25.63 lakh doses during 1990-91 while it was only 23.33 lakh doses in the previous year, showing an increase of 10 percent. This may be seen against the 16 percent increase recorded in 1989-90 over the production in 1988-89. The utilisation also increased to 15.95 lakh doses from 14.29 lakh doses, which was 12 percent higher. The 32 per cent increase recorded in the production of fodder seed was substantial while the quantity of fodder seed procured has shown a decline of 33 percent. The sizable increase in the fodder seed production could not bring in a corresponding increase either in the area of fodder cultivation or in the quantity of fodder produced. Not only that the tempo was not maintained but the area under cultivation has also come down by 460 ha resulting in a reduction in the quantity of fodder produced. However, the commercial fodder production programme initiated by the Dairy Department involving milk societies is a step in the right direction. During the year 27 societies participated in the programme. Details of seed production procurement and fodder cultivation are furnished in Table 4.24

TABLE 4.24

Production/Procurement of Fodder seed and Area Under Fodder Cultivation

Year	KLD Board		Dairy Department	
	Quantity of seeds produced (MT.)	Quantity of seeds procured (MT.)	Area covered under fodder (Ha.)	Quantity of fodder produced (MT.)
(1)	(2)	(3)	(4)	(5)
1984-85	20.40	59	1480.00	37000
1985-86	24.98	53	1344.00	33600
1986-87	40.22	40	1025.30	25625
1987-88	14.71	20	525.00	13125
1988-89	17.03	70	1773.00	44325
1989-90	36.16	150	4060.00	101500
1990-91	47.74	100	3800.00	100000

Source: KLD Board and Dairy Development Department.

4.79 During 1990-91 the Dairy Department could conduct 114727 artificial inseminations through 106 Cattle Improvement Assistants engaged by them. This was lower compared to the previous year's performance 117209.

4.80 During the year both the KLD Board and Dairy Development Department continued their training programmes. As part of the Dairy Extension and Advisory Service, 64005 farm visits and 6001 discussion classes/seminars, 114 cattle shows, 152 filmshows 2803 milk products manufacturing demonstration classes etc were organised by the Dairy Department. Assistance was given to establish 100 model dairy farm units in 100 selected panchayats. The Dairy Department has extended financial assistance to 42 societies for construction of buildings, 50 societies by way of managerial support, 410 societies for acquiring milk procurement, testing and quality control facilities. Under the westernghat development programme 85 ha were brought under fodder cultivation and 220 beneficiaries were assisted for construction of cattle sheds. Supply of 15000 bottles of vitamins and 20 MTs of trivax was also arranged by the department under the quality control services rendered during the year and 1.75 lakh samples of milk were subjected to laboratory analysis.

4.81 Training was imparted to 1944 dairy farmers through the training centres of the Dairy Department. KLD Board has also offered advanced training in specialised fields of dairy cattle production like frozen semen technology, fertility management in cows, artificial insemination, progeny testing, fodder seed production and utilisation etc. In addition to this, veterinary officers and Livestock Inspectors of the State department and internship students of Kerala Agricultural University were also given training in the Board.

Supply of Cattle Feed.

4.82 KCMMF is the major manufacturer of cattle feed in Kerala. The Federation has produced and sold 40922 MT of feed during 1990-91. The production was 11 per cent less than in 1989-90.

Milk Marketing.

4.83 Kerala Co-operative milk Marketing Federation is the implementing agency of Operation Flood Programme in Kerala with technical and financial support of NDDB. The Federation operates through the Anand Pattern Co-operative Societies (APCOS). The commercial procurement processing and marketing activities were continued under Operation Flood -III Programme of the NDDB and in addition a Swiss aided North Kerala Dairy Project was also launched by the Federation. Kerala has been divided into three milk sheds under three middle level regional unions. With the addition of 110 village level societies during the year, there were 1999 milk societies with a total membership of 508647 functioning in the State as on 31-3-1991, which includes 1299 APCOS. These societies could procure milk valued at Rs. 60 crores during the year. The procurement operation of KCMMF started with a modest beginning of around 1.1 lakh litres of milk per day, has increased step by step and as on 1990-91

the milk handled by the Federation reached a range of 2.2 to 2.9 lakh litres per day. However the Federation has been experiencing shortage in procurement since December 1990. The level of supplies could be maintained only with substantial import from the neighbouring states. Though the import which was

in the order of around 1.20 lakh litres in 1990-91 could be brought down to 60 to 70 thousand litres by the end of the year, fluctuations in the availability of milk for procurement continued to persist. Important achievements of the KCMMF during 1985-91 are given in Tables 4.25 and 4.26

TABLE 4.25
Performance of KCMMF

Particulars	1985	1986	1987	1988	1989	1990	Upto November 1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Number of APCOS registered (Cum.)	471	569	692	988	1067	1151	1299
Number of APCOS functional	448	549	676	813	963	1068	1266
Number of members in APCOS (Cum.)	84858	103891	13515	162229	206893	250746	297010
Number of Women in APCOS (Cum.)	9737	11065	12937	15439	20864	27419	34691
Number of SC/ST members in APCOS	6163	8181	8912	10450	13743	16964	18918
Average Milk procured/day by KCMMF (Lit.)	121788	123788	174992	211463	236517	237470	221403
Average Milk Marketed/day (Lit)	118035	135928	174905	205861	238857	282670	291050
Direct Employment generated (Persons)	1181	1368	1720	1845	2243	2539	2888
Average price paid to SOC/lit (Rs./ps)	..	..	3.81	3.77	4.12	4.09	4.57
Average price paid to prod/lit (Rs/ps)	..	..	3.69	3.65	4.00	3.97	4.44
Mobile regular vetyroute	..	..	12	15	19	19	19
No. of case treated by regular routes (yearly)	..	..	126511	1884167	156206	225132	17875
Number of emergency vetyroutes	..	..	7	8	11	13	13
Number of Cases treated yearly	..	..	10683	18349	18871	25103	27225
Cattle feed sales (MT)	..	..	23951	32194	34173	45931	40922
Quantity of Ghee sold (MT)	..	..	446.8	635.7	829.0	616.1	687.1
Quantity of Ice-cream sold (liters)	..	..	60353.4	64934.5	75223.3	76503.3	75079
Quantity of SFM sold 180cc bottle (Numbers)	..	..	992572	645161	854017	788343	452476
Quantity of butter sold (kg)	..	..	82923	59297	80204	61632	66927

Source : KCMMF

TABLE 4.26
Performance of the Dairies during 1990 & 1991 (Upto November 1991)

Name of Dairy	Procurement			Average Per day		Sales		Average Per day	
	Capacity	Progressive 1990	Total 1991 (November)	1990	1991	Progressive 1990	Total 1991	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	40000	13821577	12291086	37876	36800	27502743	24802197	75350	74258
Quilon	60000	17642074	14109834	48334	42246	10046279	9969891	27524	29850
Alleppey	60000	6510346	5201354	17837	15573	7068821	5937256	19367	17776
Kottayam	6000	1995080	1581569	5466	4735	6654620	5638896	18232	16883
Ernakulam	100000	23191310	18856076	63538	56455	24647600	21899143	67528	65566
Trichur	60000	7321602	4955252	20059	14836	6136969	5560793	16814	16649
Palghat	9000	8189025	7311392	22436	21890	6225579	5697644	17056	17059
Cannanore	10000	4930058	5539818	13507	16586	10196807	9038845	27936	27063
*Calicut	10000	3075518	4102252	8426	12282	4695216	8665857	12863	25946
Total		86676590	73948633	237470	221403	1031174634	97210522	282670	291050

* Calicut Dairy (Cap. 10000 lpd) came under the control of the Federation from 1-8-1990 and during the period of August to December, 1990 the dairy had an average milk procurement and sale of 20101 litres and 40688 litres per day respectively.

Source : KGMDF

Fisheries

4.84 The Kerala Coast extending over 590 Kms and accounting for about 10 per cent of the country's coastal line contributes one-fourth of the nation's fish production. Kerala accounts for 9 per cent of India's continental shelf (within 200 metre depth range) and 9.4 per cent of the Exclusive Economic Zone of India (extending up to a distance of 320 Km. into the Sea from the coastal line). The extent of continental shelf zone in the Kerala sea coast is roughly 36000 Sq. km. The world renowned fishing ground of Wadge Bank is situated within the exploitable limit of Kerala.

4.85. The fishermen population represents 3.13% of the State's total population as per the population figures (1991). Of the total fisher folk population of over 2,16,710 more than 28% is concentrated in Ernakulam District. Palakkad has the least population with 0.23%. District-wise details of Marine and Inland fishermen population are given in Appendix 4.11.

4.86 The fishable area in Kerala consists of the continental shelf within 200m. depth range spread over 29 lakh ha. The percapita availability of fishable area in the marine sector is only 10 ha. in Kerala as against 177 ha. in Gujarat. The national average is 37 ha. The inland water area suitable for promotion of culture fisheries is estimated to be around 3.6 lakh ha. which include backwaters, lakes and estuaries

(242600 ha), reservoirs (29635 ha.) tanks and ponds (3300 ha.) and rivers (85000 ha.) The inland water spreads particularly those in the backwater show wide variation in chemical composition from season to season.

4.87 The total fish production in Kerala which was hovering around 4 to 5 lakh tonnes during the last two decades registered an impressive increase to 6.75 lakh tonnes during the last two years in succession. The production touched an all time high of 6.99 lakh tonnes during 1990-91 which comprises of 6.63 lakh tonnes from the marine sector and 0.36 lakh tonnes from the inland sector. The composition of marine fish landings in Kerala during the last 6 years species-wise is furnished in Appendix 4.12.

4.88 The enormous potential for development of inland fisheries in Kerala has remained virtually untapped. The contribution of this sector to the total fish production has remained stagnant around 25,000 to 30,000 tonnes during the last decade. The details of inland fish production during the period are furnished in Appendix 4.13.

4.89 During 1990-91 export of marine products from Kerala increased by 7.94% over the previous year. This is against the increase of 25.78% recorded for the country as a whole. Out of a total marine products export of 139419 tonnes from the country during 1990-91, Kerala's contribution was 50997 tonnes i.e. 36.58%. Though there was substantial growth in the

export of marine products from Kerala during the last decade, its relative share in the total exports from the country has come down considerably during the period. Relevant data are furnished in Appendix 4.14.

Development activities through Matsyafed

4.90 All the major schemes meant for the development of marine fisheries are implemented through the Matsyafed which is the apex organisation of the fishermen co-operatives. There are seven district offices and 81 fishermen welfare development co-operatives functioning under the Federation. Out of 1.75 lakh active fishermen in Kerala, 53321 are members of the co-operatives.

4.91 The Integrated Fisheries Development Project with NCDC assistance is the major project implemented by the Matsyafed. The project was under implementation from 1986-87 onwards and two phases are already over, under phase I, an amount of Rs. 555.84 lakhs was spent as subsidy and loan for the supply of fishing inputs to 850 groups covering 4577 fishermen. The expenditure under Phase II was Rs. 1034.28 lakhs covering 5530 fishermen organised into 417 groups.

4.92 The Federation is also providing transport facilities to women vendors for procurement of fish from the landing centres and transporting it to distant markets in Thiruvananthapuram district by operating 7 buses. Supply of diesel and kerosene required for the mechanised boats is also arranged by the Matsyafed through 4 depots—kerosene from Neendakara bunk and diesel from Sakthikulangara, Neendakara and Puthiappa.

4.93 Matsyafed is the nodal agency for implementing the Housing Schemes assisted by HUDCO. Till the end of 1990-91 a total of 27897 houses were completed under this programme. Under the Vizhinjam Rehabilitation Housing Scheme 711 houses have so far been completed and the work of 240 houses is in progress. In addition, 2593 houses were completed under the programme assisted by NFWF. The physical and financial details of the Integrated Fisheries Development Project operated by Matsyafed are given in Appendix 4.16.

Construction of Fishing Harbours and Landing Centres

4.94 Under the 50 per cent Centrally Sponsored Scheme for fishing harbour development, construction works of Fishing Harbour at Vizhinjam, Neendakara, Thankassery, Munambam, Puthiyappa, Ponnani, Chombal and Mopla Bay are in progress. Under the scheme for Fish Landing Centres for mechanised boats, Kasaragode, Neeleswaram, Munakkakadavu and Dharmadam centres were completed, Landing centres at Cheruvathur and Thottappally were commissioned. Works of Landing Centres at Palacode, Chettuvai and New Mahe are nearing completion. Fish Landing Centres for traditional fishermen were taken up at Vallikkunnu, Vizhinjam North, Chalil Gopalpettah and Vellayil Beach, Quilandy and Arthungal. Centres at Vellayil Beach and Vallikkunnu were commissioned. Construction works in other centres are in progress.

4.95 Other infrastructural works which are in different stages of execution include fish Farm at Poyya, Nurseries at Polachira, Malampuzha, Pannivelichira and Chulliar; Cold storages at Kottayam and Balia-pattam and prawn Hatcheries at Azhikode. Physical and financial details in respect of these works are given in Appendix 4.17.

Welfare Activities

4.96 The Kerala Fishermen Welfare Fund Board was constituted with a view to promote various relief and welfare measures to fishermen. The funds required are raised through contributions from fishermen, owners of crafts and marine product dealers in addition to the grants and loans made available by the State Government.

4.97 Group accident Insurance, financial assistance to disabled fishermen, financial assistance for the marriage of daughters of fishermen, financial assistance for expenses for death of dependents of fishermen, Insurance to Huts and crafts, Fishermen pension etc. are some of the relief and welfare activities implemented by the Board. The financial and physical achievements of the Board till the end of 1990-91 are given in Appendix 4.18.

Research Support

4.98 Research investigations are undertaken in all disciplines relating to fisheries technology by the Central Institute of Fisheries Technology at Kochi. It has six research centres located in the important fisheries States of the Country. The Institute also provide technical guidance and information support to the various agencies operating in the Fisheries sector.

4.99 Some of the important achievements of the Institute are briefly mentioned below:

- (1) Poly propylene gill nets have been found equally efficient as nylon nets.
- (2) Development of technology for production of very low viscosity chitosan.
- (3) Further refinement in the techniques for commercial production of dry cured fish
- (4) Processing technology for smoke cured products from tuna.
- (5) Design of a liquid nitrogen spray system for freezing fishery products.

4.100 The Central Marine Fisheries Research Institute at Kochi conducts research both in captive and culture fisheries. The Institute is constantly monitoring the rate of exploitation of the fisheries resources and supports a wide range of research activities.

4.101 Promotion of export of marine products is largely attended by the Marine Products Export Development Authority, Kochi. The year 1990-91 brought in the highest ever export realisation to the country through marine products inspite of several constraints including the Gulf War. The volume and value of export during

the year were 139419 tonnes and Rs. 893.37 crores respectively. While the volume was higher by 25.8% over the previous year, in value terms, the increase was 40.7%. Apart from the promotional work the authority is educating fishermen on the proper method of handling and preservation of fish through organised training programmes. A total of 3211 fishermen were benefited by the programme during 1990-91. Trade fairs were also organised at Tokyo and Boston in 1991.

Fishing Crafts and Fishing Regulations

4.102 In 1990, there were about 3742 mechanised boats, 11374 motorised country crafts and 26137 non-motorised country crafts operating in the marine sector. With the advent of mechanisation there is need for regulating the fishing operations through appropriate

measures from a long term perspective. The artisanal sector also needs protection from the unhealthy competition from the mechanised sector. Accordingly the Marine Fishing Regulation Act was enacted by the State Government in 1981. It empowers the Government to regulate, restrict or prohibit the operation of fishing vessels in sea along the coast of Kerala. Among the various measures adopted, ban on monsoon trawling is an important one. The ban was in force from 2-7-1988 to 31-8-1988, 20-7-1989 to 31-8-1989, 28-6-1990 to 20-7-1990 and from 15-7-1991 to 16-8-1991. These regulatory measures have been helpful in conserving certain species of fishes and thereby augmenting the overall fishery resources.

4.103 The district-wise details of mechanised boats, motorised crafts and non-motorised crafts as on 31-3-1991 are furnished in Table 4.27.

TABLE 4.27
Details of Crafts Operating in the Marine Sector

Sl.No.	Districts	Mechanised	Motorised	Non-motorised	Total
(1)	(2)	(3)	(4)	(5)	(6)
(1)	Thiruvananthapuram	29	2688	11119	13836
(2)	Kollam	984	1879	1601	4464
(3)	Alappuzha	244		1473	3880
(4)	Ernakulam	1241	465	1740	3446
(5)	Thrissur	152	598	1518	2268
(6)	Malappuran	175	702	2321	3198
(7)	Kozhikode	406	1526	3615	5547
(8)	Kannur	303	788	1497	2588
(9)	Kasaragode	148	565	1253	1966
	Total	3682	11374	26137	41193

4.104 Motorization of Country Crafts though helped in augmenting the income base of a small section of the fishermen community, does not appear to have contributed in increasing the overall fish production from the marine sector. This was mainly because the motorized units were almost confining in the inshore areas. There is need for redesigning the craft and gear to meet the post motorisation requirements facilitating longer stay and efficient operation, expanding the fishing operations in the off shore areas.

Forest and Wildlife

General Forestry

4.105 The total area under forest as per the records of the Forest Department is 11.2 lakh ha. which includes 9.1 lakh ha. of reserve forests. Division-wise details of forest area are given in Appendix 4.20

4.106 The area under forest plantations has marginally increased from 153012ha. in 1990 to 153148 ha

in 1991. Among the species under plantations teak accounts for the major share (49.76%). Species-wise area under plantation is given in Appendix 4.21.

4.107 Timber, Firewood, Cardamom, Honey, Reeds Bamboo, Sandalwood, etc., form the major forest produces. The production of Reeds and Bamboo recorded the maximum increase during 1991. Item-wise details are given in Appendix 4.22.

4.108 The ban on tree felling imposed by Government continued during 1990-91 also. Though this has helped in enriching the forest wealth through around regeneration, it had its adverse impact on the forest revenue. The sale proceeds of forest produce which stood at Rs. 42.89 crores in 1980-81 came down to Rs. 37.31 crores in 1990-91. However it is 16 per cent higher than the earnings during 1989-90 (Rs. 32.18 crores). Details of revenue during the last six years are given in Appendix 4.23.

Social Forestry

4.109 Social forestry activities received momentum with the introduction of the World Bank aided Social Forestry Project in 1984. Production of farm forestry through organised arrangements for multiplication and distribution of seedlings, raising plantations in Public lands and afforestation of degraded forest lands are the major components under this project. The project could distribute 3407 lakh seedlings (69530 ha. area equivalent) and cover 19844 ha. public plantations till December 1990 which was the terminal year as originally conceived in the project. However, the World Bank has given its consent for its extension for another two years so as to utilise the unspent balance mainly arising out of the Dollar appreciation in exchange rates.

4.110 Accordingly, the activities were sanctioned during 1990-91 also. The distribution of seedling during the year was 129.50 lakhs and the coverage under plantations was 4748.73 ha. in addition to avenue plantations to the extent of 24 K.m. Progress of work under the World Bank Project from its inception is given in Appendices 4.24, 4.25 and 4.26.

Wildlife

4.111 The two National Parks and 12 Wildlife sanctuaries in the State cover an area of around 24 per cent of the total forest area. Sanctuary-wise area is given in table 4.28. Important development works organised in the wild life sanctuaries during 1990-91 include clearing of 1958.83 Kms. of fire lines, construction of 499.81 Kms. of roads and paths, 13.08 Kms. of walls, establishment of 10 wireless stations, construction of 17 check dams, 15 buildings, 56.09 Kms. of power fencing and 174 nos. of cairns. Afforestation activities were also taken up covering 264.96 ha. in various Sanctuaries and National Parks. The details of works are given in Appendix 4.27.

Forest Research

4.112 The Kerala Forest Research Institute established in 1975 is providing the research support to forestry and related disciplines. Research efforts of the Institute are directed towards the following areas.

- (i) Evolution of Technology for increasing the productivity of man made forests.
- (ii) Silviculture management and utilisation of bamboo and rattan.
- (iii) Methodologies for afforestation of degraded forests.
- (iv) Studies on human ecology of Tribals in Attappady.

TABLE 4.1

Percentage Departure of Rainfall
(in m.m.)

Year	Summer	South West Monsoon	North-East Monsoon
(1)	(2)	(3)	(4)
1981	-28	17	-16
1982	-44	-16	-43
1983	-73	2	-33
1984	-12	-13	-30
1985	-8	-17	-26
1986	-51	-21	-20
1987	-55	-31	30
1988	-15	-1	-64
1989	-30	-9	-18
1990	-28	-25	-4
1991	-39	18	-21

TABLE 4.2

Month-wise distribution of normal rainfall and average rainfall for last 12 years
(in m.m.)

Month	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	Average for 12 years
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
January	..	10.34	0.6	..	57.0	63.3	4.1	0.3	1	6	15	14	14.3
February	21.9	4.73	..	0.5	54.0	5.2	15.0	0.7	19	0	5	6	11.0
March	0.6	20.88	20.6	0.8	57.1	41.5	5.3	3.5	49	19	17	34	22.4
April	260.5	65.87	59.7	16.3	163.9	66.7	65.3	57.6	144	107	42	97	95.5
May	102.0	134.04	140.7	85.3	87.1	268.7	122.7	118.8	142	153	489	119	163.5
June	750.0	779.23	271.9	317.6	745.3	861.0	264.4	559.0	585	725	603	1084	628.8
July	773.4	410.79	437.0	559.3	638.9	424.1	318.2	187.8	608	577	652	837	535.3
August	441.1	377.40	216.7	573.7	264.8	293.2	349.7	394.2	427	354	349	471	376.0
September	150.8	321.23	29.8	486.2	210.1	132.3	261.7	150.7	498	294	106	50	224.2
October	268.5	242.35	181.5	134.7	270.9	190.9	156.3	261.2	76	313	326	291	226.0
November	175.4	115.67	97.8	95.8	71.4	82.6	200.8	214.3	79	87	174	100	124.5
December	39.1	31.84	8.6	65.1	36	52.3	8.9	91.6	25	7	2	3	30.9
Total	2983.3	2514.37	1464.9	2935.3	2556.5	2481.8	1772.4	2039.7	2658	2642	2780	3106	2432.9
Average	248.6	209.53	122.07	194.61	221.38	206.82	147.7	169.98	221	220	232	259	204.4

TABLE 4.3.

Land Use Pattern in Kerala

(Area in ha.)

Classification of land	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	Change in area over 1980
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Total Geographical Area	3885497	3885497	3885497	3885497	3885497	3885497	3885497	3885497	3885497	3885497	Nil
2. Forest	1081509	1081509	1081509	1081509	1081509	1081509	1081509	1081509	1081509	1081509	Nil
3. Land put to non-agricultural uses	269824	266451	275908	277719	279703	278601	263017	284802	284391	284850	15026
4. Barren and uncultivated land	85770	85600	86217	86590	85688	83107	82343	72491	71198	65994	-19776
5. Permanent Pastures and grazing land	5432	5382	5311	5222	4158	4223	3711	3089	3286	2916	-2516
6. Land under Misc. tree crops not included in net area sown	63875	55187	54705	54701	51039	50228	46614	40606	41543	38095	-25780
7. Cultivated Waste	129032	130204	130213	128924	130098	125559	129532	115342	115786	107362	-21670
8. Fallow other than current fallow	26886	26827	27425	27539	27221	28038	27727	28779	28295	26609	-277
9. Current fallow	43579	44487	44485	42938	41758	43247	44258	47605	46623	46044	2465
10. Net area Sown	2179590	2189850	2179753	2180355	2184423	2190985	2206736	2211274	2212866	2252118	52528
11. Area Sown more than once	705250	715407	682319	681347	690220	675567	663578	688581	750607	786901	81651
12. Total Cropped area	2884840	2905257	2862073	2861702	2874643	2866552	2870314	2899855	2963473	3019019	134179
13. Percentage of land use for agriculture	56	56.35	56.09	56.12	56.22	56.38	56.79	56.9	56.95	57.44	..
14. Cropping intensity	132.35	132.66	131.30	131.25	131.59	130.83	130.14	131.14	133.92	135.25	..

TABLE 4.4
Area Under Principal Crops in Kerala

Sl. No.	Crops	(Area in Ha.)											Change over 1980	percent- age
		1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1.	Rice	801699	806871	778490	740086	730379	678281	663803	604082	577557	583389	559450	-242249	-30.22
2.	Jowar	..	..	..	..	..	..	2040	2559	4117	4469	4158	2118	103.82
3.	Ragi	1471	1435	1233	1565	1200	1182	1170	1552	1825	1948	1809	338	22.98
4.	Other millets	..	..	..	..	..	..	3648	4133	3143	3047	2960	-688	-18.86
5.	Pulses	33859	33910	30055	30268	28715	28396	27901	25711	25501	25002	24371	-9488	-28.02
6.	Sugar Cane	8041	8381	7814	8084	7839	7816	8827	8228	8245	8025	8162	121	14.39
7.	Pepper	108073	108242	107467	106143	105835	121565	128865	146081	157006	167104	168993	60920	56.37
8.	Chillies	..	..	..	..	..	..	..	..	748	692	638	-110	-14.71
9.	Ginger	12662	13447	12662	14883	14537	15671	16591	14444	14167	14432	14035	1373	10.84
10.	Turmeric	3270	3200	2487	3161	2885	3164	3226	3047	3083	2931	2984	-286	8.75
11.	Cardamom	56376	54516	54516	56376	58769	60628	62740	64627	64548	64548	61815	5439	9.65
12.	Betal nuts (million nuts)	61242	61251	60816	59604	59089	58691	57734	60535	62472	63179	62060	818	1.34
13.	Banana	49262	49989	48038	49593	51407	53002	18724	18929	20496	20991	21090	-28172	-57.19
14.	Other Plantation	..	..	..	..	..	..	34554	37970	38801	39776	40071	5517	15.97
15.	Cashewnut	141277	139960	141307	142339	136863	137747	133562	121550	124740	123661	118036	-23241	-16.45
16.	Tapioca	244990	248069	227617	233010	216742	202919	192878	172908	169475	160145	147252	-97738	-39.89
17.	Sweet Potato	5054	5316	5006	5085	4635	4821	3996	3399	3174	2854	2851	-2203	-43.59
18.	Groundnut	9399	9707	10276	9810	11824	11010	12416	14749	13264	12113	14324	4925	52.40
19.	Sesamum	14752	15037	14153	15045	14448	14285	14200	12326	11753	10763	10741	-4011	-27.19
20.	Coconut (million nuts)	651370	666618	674378	682281	687483	704682	706107	775365	816880	832174	864059	212689	32.65
21.	Cotton	6223	6777	5900	6300	6326	5963	5265	4923	6429	7956	6615	392	6.30
22.	Tobacco	..	..	..	..	..	..	..	..	359	332	355	-4	-1.11
23.	Coffee	57564	57905	62368	64009	65641	65641	65641	65637	65637	75057	NA.	8073	14.02
24.	Tea	36164	36130	35228	35021	35003	34760	34639	34642	34642	34605	NA.	-1474	-4.08
25.	Rubber	237800	248000	259700	294300	310200	330315	347814	358957	366500	376800	384000	138200	58.12
26.	Cocoa	..	..	..	..	..	..	14978	14003	14003	12758	NA.	-975	-6.5

TABLE 4.5

Production of Principal crops in Kerala

Sl. No.	Crops	(Production in Tonnes)														Change over 1988	Percent- age
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			(15)
		1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91					
1.	Rice	1271962	1339383	1306197	1207916	1255902	1178051	1133786	1032605	1012558	1141231	1086578	-185384	-14.57			
2.	Jowar	1131	1100	920	1028	1000	680	965	1281	1491	1589	1466	335	29.62			
3.	Ragi	22479	22286	19904	19912	20384	20475	20062	18639	18459	17971	18531	-3948	-17.56			
4.	Other Small millets	48178	47749	82135	87062	42754	42560	57883	58807	53519	54077	53517	5339	11.08			
5.	Pulses	28519	27511	24526	24549	17350	33121	30378	46819	43241	54135	47922	19403	68.04			
6.	Sugarcane	37039	34379	31581	36705	41245	44466	47652	45511	45020	47272	44502	12463	38.90			
7.	Chillies	6141	6027	5192	5841	5186	6201	6239	5841	5787	5721	5908	-233	-3.79			
8.	Garlic	3100	2800	1900	1100	2850	3340	2500	2050	2820	2820	2770	-330	-10.65			
9.	Turmeric	18805	10702	11027	8318	8589	10664	53207	10665	11450	11964	12341	1536	14.22			
10.	Betal nuts (million nuts)	317405	327527	288699	316653	531192	361126	219104	249933	262381	274760	278965	-38440	-12.11			
11.	Banana	81908	78898	75495	77375	72294	80203	88710	81481	108264	106258	105369	23469	28.66			
12.	Other plantation	4068911	3745142	3848718	3988169	3694270	3276877	3292302	3236352	3165265	3058972	2798980	-1261931	-31.08			
13.	Cashewnut	32367	34674	33078	33605	38779	40710	33270	28213	26544	23639	23544	-9423	-28.58			
14.	Sweet Potato	8225	8872	9074	8578	11768	6001	5796	13907	9564	9002	10629	2404	29.23			
15.	Groundnut	3833	4000	3648	3838	3632	3702	3407	3962	2029	1925	1908	-1908	-49.78			
16.	Sesamum	3008	3006	3184	2602	3453	3377	3173	3346	4215	4358	4527	1519	50.50			
17.	Coconut (million nuts)	9847	10724	9336	9869	10040	6924	1530	1350	1764	2183	1817	-8030	-81.55			
18.	Cotton	..	..	..	..	..	..	..	..	667	618	666	-1	-0.15
19.	Tobacco	36475	33355	15375	9555	43565	23550	23550	22925	47425	23800	NA.	-12675	-34.75			
20.	Coffee	50716	47631	44582	58179	56329	52628	50385	56276	65771	57083	64025	6367	12.55			
21.	Tea	140333	139485	158662	162212	172092	184780	202129	216562	238414	275397	307521	136064	96.25			
22.	Rubber	..	..	..	..	..	..	6036	5857	5780	NA	NA	-256	-4.24
23.	Cocoa	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 4.6

Productivity of Principal Crops in Kerala

Sl. No.	Crops	(Productivity in Kg/H.)														Change over 1980	Percentage
		1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	(14)	(15)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)			
1.	Rice	1587	1600	1678	1632	1720	1729	1708	1709	1753	1956	1942	355	22.37			
2.	Jowar	..	..	..	..	..	..	505	506	507	526	577	2	0.40
3.	Ragi	769	767	746	657	833	829	825	825	817	812	810	41	5.33			
4.	Other small millets	..	..	..	..	..	..	756	770	767	978	820	64	8.47
5.	Pulses	664	657	662	658	710	721	719	725	724	764	760	96	14.46			
6.	Pepper	264	254	228	231	164	272	286	320	275	249	284	20	7.58			
7.	Sugarcane	5992	5936	10511	10770	5454	5445	6557	6539	6491	6584	6557	565	9.43			
8.	Chillies	..	..	..	..	..	..	..	..	981	979	1050	69	7.03
9.	Ginger	2530	2557	2994	2466	2837	2837	2872	3151	3178	3354	3171	641	25.94			
10.	Turmeric	1878	1883	2088	1848	1797	1960	1940	1917	1877	1959	1980	102	5.43			
11.	Cardamom	55	51	35	20	48	55	40	32	44	32	45	-10	-18.18			
12.	Betalnuts (million nuts)	176481	174724	181317	199554	145857	..	921	176000	173000	..	198855	22424	12.71			
13.	Banana	6443	6552	6024	6385	6441	6813	11701	19197	12802	13059	19227	6784	105.29			
14.	Other plantain	..	..	..	..	..	..	4145	4545	4516	4597	4422	277	6.68
15.	Cashewnut	580	564	594	543	528	582	664	670	868	877	893	313	53.97			
16.	Tapioca	16576	15097	16909	16351	17044	16149	17069	18717	18677	18309	1908	2432	14.67			
17.	Sweet Potato	6528	6523	6608	6609	8366	8444	8326	8300	8363	8343	8258	1735	26.60			
18.	Groundnut	875	883	883	874	995	545	467	943	720	990	742	-133	-15.20			
19.	Sesamum	260	266	258	255	251	259	240	321	173	351	179	-81	-31.15			
20.	Coconut (million nuts)	4618	4509	4721	3814	5000	4792	4494	4315	5160	5017	5239	621	13.45			
21.	Cotton	1580	1532	1580	1582	1582	1614	2900	2740	2740	2860	2750	1170	74.05			
22.	Tobacco	..	..	..	..	..	..	..	..	1858	1817	1876	18	0.97
23.	Coffee	634	581	246	149	664	..	359	349	722	362	NA	-272	-42.90			
24.	Tea	1402	1318	1266	1661	1609	1514	1453	1625	1898	1646	NA	244	17.40			
25.	Rubber	590	562	588	551	55	559	581	603	967	1025	1080	435	73.73			
26.	Cocoa	..	..	..	..	..	..	403	418	413	..	NA	-5	-1.24

₹ nut per hectare.

Table 4.8

Season-wise Area, Production and Productivity of Rice in Kerala. (Area in Ha, Production in Tonnes and Productivity in Kg./Ha.)

Season	Area		Production		Productivity	
	1989-90	1990-91	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Autumn	243611	236078	478643	463025	1965	1961
Winter	268599	258564	504197	480655	1877	1860
Summer	71178	64808	158391	142898	2225	2205
All Seasons	583388	559450	1141231	1086578	1956	1942

TABLE 4.9

District-wise Area, Production and Productivity of HYV of rice in Kerala 1990-91.

Sl. No.	District	Autumn			Winter			Summer			Total		
		Area Ha.	Production Tonnes	Productivity Kg./Ha.	Area Ha.	Production Tonnes	Productivity Kg./Ha.	Area Ha.	Production Tonnes	Productivity Kg./Ha.	Area Ha.	Production Tonnes	Productivity Kg./Ha.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Thiruvananthapuram	4668	10629	2277	2453	4234	1726	43	49	1140	7164	14912	2082
2.	Kollam	10808	24524	2362	1142	2226	1949	33	38	1152	11983	26788	2236
3.	Pathanamthitta	2146	4432	2065	2095	4428	2114	3929	12918	3288	8170	21778	2666
4.	Alappuzha	15841	33494	2114	7828	20946	2676	13762	33302	2420	37431	87742	2347
5.	Kottayam	7962	17375	2182	6243	15481	2480	7022	20047	2855	21227	52903	2492
6.	Idukki	197	370	1878	619	1142	1845	No Paddy			816	1512	1853
7.	Ernakulam	11761	22378	1903	4032	6517	1616	3732	6181	1656	19525	35076	1796
8.	Thrissur	3987	7141	1791	5278	11209	2124	8318	18112	2177	17583	36462	2074
9.	Palakkad	8561	19881	2322	1269	3039	2395	281	542	1929	10111	23462	2320
10.	Malappuram	5710	10793	1890	3156	5621	1781	2785	6654	2389	11651	23068	1980
11.	Kozhikode	956	1440	1506	708	920	1299	1017	1682	1654	2681	4042	1508
12.	Wayanad	No Paddy			3147	8715	2669	1650	4339	2630	4797	13054	2721
13.	Kannur	5105	9350	1832	1564	2947	1884	82	136	1659	6751	12433	1842
14.	Kasaragode	2323	4850	2088	471	1011	2146	132	279	2114	2926	6140	2098
	Kerala State	80025	166657	2083	40005	88436	2211	42786	104279	2437	162816	359372	2207

TABLE 4.10

District wise Area, Production and Productivity of Rice in Kerala (Area in Ha. Production in Tonnes & Productivity in Kg/Ha.)

Sl. No.	District	Area (Ha.)		Production Tonnes		Productivity (kg./Ha.)	
		1989-90	1990-91	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Thiruvananthapuram	20921	21677	39036	38363	1866	1770
2.	Kollam	31074	30513	59093	58385	1902	1913
3.	Pathanamthitta	13949	14234	31921	33226	2288	2334
4.	Alappuzha	64534	60675	145133	131663	2249	2170
5.	Kottayam	30063	26257	71175	62719	2368	2389
6.	Idukki	4914	5078	11554	10953	2351	2160
7.	Ernakulam	69801	63078	120101	102689	1721	1628
8.	Thrissur	74451	74038	124698	129287	1675	1746
9.	Palakkad	146739	145687	328812	324907	2241	2230
10.	Malappuram	54704	51934	86845	80830	1586	1556
11.	Kozhikode	14004	12062	16983	14834	1213	1230
12.	Wayanad	21032	20343	42887	41974	2039	2063
13.	Kannur	20982	19382	34587	32308	1648	1650
14.	Kasaragod	16220	14292	28406	24440	1751	1710
	Kerala State	583388	559450	1141231	1086578	1956	1942

Table—4.11

Area, Production & Productivity of Rubber Kerala & India

Year	KERALA			INDIA		
	Area ('000 ha.)	Production (M.T.)	Productivity (Kg./ha.)	Area ('000 ha.)	Production (M.T.)	Productivity (Kg./ha.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1986-87	342.6	202 129	924	388.6	219,520	926
1987-88	355.0	216 562	942	406.4	235,197	944
1988-89	366.7	238 414	967	423.7	259,172	974
1989-90	376.8	275 397	1025	440.7	297,300	1029
1990-91 P	384.0	307 521	1080	451.3	329,615	1076

P —Provisional.

Table—4.12

Production/Import and Consumption of Rubber

INDIA

(Tannies)

Items	1986-87	1987-88	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)
Production					
Natural Rubber	219,520	235,197	259,172	297,300	329,615
Synthetic „	38,816	44,468	54,389	53,482	57,293
Reclaimed „	38,995	40,535	40,960	44,500	45,785
Import					
Natural Rubber	45,356	53,685	52,835	44,445	51,942
Synthetic „	32,600	30,100	33,950	39,000	51,880*
Consumption					
Natural Rubber	257,305	287,480	313,830	341,840	364,310
Synthetic „	71,785	76,410	84,150	93,550	104,735
Reclaimed „	38,635	41,140	41,200	43,935	45,660
Total Consumption	367,725	405,030	439,180	479,325	509,470

*Incomplete

Table—4.13

*Average Market Price of Indigenous Natural Rubber
in Kottayam Market*

(Rs./quintal)

Year & Month	RMA-4	Ungraded Rubber
(1)	(2)	(3)
1986-87	1660	1592
1987-88	1791	1726
1988-89	1815	1745
1989-90	2131	2057
1990-91	2129	2023
April 1991	2113	1994
May „	2115	2014
June „	2115	2005
July „	2166	2009
August „	2285	2018
September „	2174	1959
October „	2115	1916
November „	2112	1882

TABLE 4.14
 Index of Area, Production and Productivity of Crops in Kerala. Base: Average of Triennium ending 1979-80.

Crops	Area					Production					Productivity		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
		Average of 3 years 1976-77 to 1978-79	1988-89	1989-90	1990-91	Average of 3 years 1976-77 to 1978-79	1988-89	1989-90	1990-91	Average of 3 years 1976-77 to 1978-79	1988-89	1989-90	1990-91
All Crops (A+B)	101.48	101.82	105.38	103.23	109.23	100.17	119.43	123.31	123.38	98.71	79.72	84.02	82.51
A. Food Grains (1+2)	102.55	71.82	72.22	69.54	88.67	88.95	88.81	84.68	96.22	110.27	122.62	121.85	121.85
1. Cereals	102.59	72.38	72.60	69.61	98.85	78.71	88.68	84.44	96.35	109.66	122.23	121.41	121.41
2. Pulses	101.53	71.37	71.01	68.21	87.06	99.90	99.27	100.31	85.75	149.32	139.07	147.00	147.00
B. Non-Food Grains (3 to 8)	101.00	115.62	120.64	118.73	100.52	129.15	131.32	132.35	99.52	77.35	73.44	71.90	71.90
3. Oil Seeds	101.66	120.91	122.81	127.70	103.48	137.82	144.95	145.06	101.79	110.41	112.17	112.31	112.31
4. Plantation Crops	95.04	151.27	157.07	159.33	93.84	167.75	166.24	182.32	98.74	110.89	108.20	118.21	118.21
5. Condiments and spices	100.65	126.85	131.42	130.42	89.40	136.96	137.39	130.43	88.82	99.42	105.60	101.99	101.99
6. Drugs and Narcotics	82.29	80.14	80.08	80.08	89.45	70.00	63.63	65.62	108.85	95.48	87.57	92.65	92.65
7. Fruits and Vegetables	103.20	85.23	83.28	81.50	105.94	91.24	90.09	86.75	102.65	95.05	95.10	91.23	91.23
8. Miscellaneous	103.59	113.35	123.44	114.14	98.02	124.07	131.32	124.86	94.62	102.03	95.34	101.41	101.41

TABLE 4.15

Selected Indicators of Agricultural Development

S.L.No.	Programme	Units	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	Change over 1980
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. Fertilizer Consumption														
(a)	Nitrogen	Tonnes	41697	40612	45233	62480	57657	59263	60783	70730	80238	78638	93805	52108
(b)	Phosphorous	"	23402	23214	26555	31178	32642	34412	35857	49350	50884	47252	55420	32018
(c)	Potash	"	32432	30985	38005	35819	37946	47655	54723	62410	82805	86564	95155	62723
2. Plant Protection														
(a)	Seed treated	000 Tonnes	5288	6264	3872	6159	5060	4660	4300	2618	NA	NA	NA	-2670
(b)	Area under seed treatment	Lakh ha.	0.622	0.783	0.484	0.770	0.51	0.47	0.541	0.374	0.380	0.483	0.355	-0.267
(c)	Fungicides (Liquid and solid) in terms of technical grade	Tonnes	304.17	394.96	552.59	385.25	380.29	490.75	536.45	468.81	469.08	445.97	465.85	161.68
(d)	Insecticides (Liquid and Solid) in terms of technical grade	Tonnes	615.76	536.83	319.68	679.65	627.24	466.48	472.15	556.54	667.72	547.08	436.93	-178.83
(e)	Weedicides (in terms of technical grade)	"	153.62	42.27	60.49	17.00	16.34	21.49	24.35	25.73	27.68	23.40	29.84	-123.78
(f)	Rodenticides (in terms of technical grade)	"	18.52	10.90	17.24	18.05	4.93	5.28	6.50	7.92	11.02	12.55	12.88	-5.64
(g)	Area under plant protection coverage	Lakh ha.	10.98	9.29	7.27	12.00	10.00	8.678	6.158	5.366	7.58	6.303	8.310	-2.67
(h)	Rodent control operation	"	0.63	0.40	1.04	1.00	0.85	0.95	0.913	1.784	0.799	1.055	1.069	0.439
(i)	Biological control of Nephantus serinopa parasites liberated	Lakh Nos.	262.59	204.50	187.85	115.63	199.69	168.05	242.236	177.266	216.488	207.47	225.576	-37.014
(j)	Weed control	Lakh ha.	0.775	1.134	0.835	1.151	1.22	1.51	1.333	1.578	1.317	1.040	1.345	0.57
(k)	Trees sprayed for the control of coconut leaf disease	Lakh nos.	80.774	47.36	14.125	40.103	35.89	29.09	33.918	9.972	..	6.652	51.229	-29.545
(l)	P. P. equipments distributed	No.	..	..	..	..	..	..	691	845	844	2556	5518	4827
3.	High yielding varieties of paddy seeds distributed from State Seed Farm and other government agencies	Tonnes	1376.42	1785.00	2010	2190	2315	4810	2691.21	2450.22	1980.14	4184	2344	967.58

TABLE 4.15 (Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
4. Quality planting Material Distributed														
(a) Coconut														
	(i) W.C.T.	Lakh No.	9.265	24.42	27.34	20.03	12.69	15.24	17.823	13.43	12.64	15.94	16.86	7.5959
	(ii) T X D	"	4.931	4.31	24.53	18.26	1.28	0.53	0.468	0.30	0.64	0.64	0.90	-4.031
	(iii) D X T	"	1.180	0.15	2.68	1.49	0.08	0.04	0.627	0.09	0.14	0.099	0.14	-1.04
(b) Rooted Pepper cuttings														
	(i) Panniyoor—I	Lakh No.	8.32	8.76	4.81	5.25	4.81	6.39	5.18	4.98	10.67	13.58	45.49	37.17
	(ii) Other varieties	"	18.26	11.32	17.42	8.48	..	14.14	14.92	12.55	..	..	..	-5.71
	(c) Cashew layers	"	0.098	0.097	..	..	..	..	0.01	0.01	0.19	0.15	0.10	0.002
	(d) Nutmeg seedlings	"	0.241	0.141	0.19	0.06	0.05	0.07	0.23	0.05	0.19	0.15	0.66	0.419
	(e) Seedlings	"	0.694	0.608	0.39	0.51	0.10	0.51	0.11	0.56	0.40	0.75	..	-0.056
5. Soil Testing														
	(a) Soil Samples collected	Lakh Nos.	..	..	..	..	..	..	193875	235427	253048	239558	227621	39746
	(b) Soil Samples Analysed	"	1.24	1.20	1.34	0.92	1.10	1.16	189405	204505	220998	239346	212685	86685

TABLE 4.16 (A)

Physical Achievement under Special Component Plan

Sl. No.	Particulars of benefit given	Unit	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	No. of colonies benefitted	Nos.	2497	1788	3468	4849	481	2540
2.	No. of families benefitted	"	92131	48760	111427	150105	..	144059
3.	Area benefitted	Ha.	26406	6396.12	11656	11178	..	7949.77
4.	Coconut Seedlings	Nos.	100952	241859	275986	219894	251561	685519
5.	Rooted Pepper cuttings	"	309528	110595	167114	639133	404230	595880
6.	Clove seedlings	"	5668	..	1890	4502	2540	773
7.	Mango grafts	"	1540	7896	898	5994	3289	6870
8.	Nutmeg Seedlings	"	..	..	..	..	16238	4000
9.	Paddy seeds	Kg.	..	..	..	3036	7850	324875
10.	Land Reclamation work	M3	7887	..	..	..	..	5968.92
11.	Soil Conservation work	Ha.	343.314	..	..	24.00	..	17814.26
12.	Construction of Mud Wall	M3	..	..	..	..	..	58086
13.	Knapsack Sprayers	No.	..	..	4079	520	3370	611
14.	Rocker Sprayers	"	..	..	1088	..	1073	392
15.	Power Sprayer	"	..	..	17	..	23	13
16.	Paddy thresher	"	..	..	..	..	..	10
17.	Power tiller	"	..	..	77	61	68	21
18.	Tractor	"	..	..	6	7	1	14
19.	Metalic Storage Bin.	"	..	9857	..	..	..	1623
20.	Rubber Roller	"	..	..	..	..	..	3
21.	Construction of Biogas Plant	"	..	..	..	..	..	224
22.	Smokeless oven	"	..	..	..	..	..	207
23.	Renovation of Irrigation Well	"	125	..	165	210	85	587
24.	Pump House	"	..	..	..	..	..	6
25.	Agro Service Centre	"	26	..	29	14	47	8
26.	Pumpset Installed	"	26	..	50	19	26	..
27.	Groundnut seeds	"	..	..	..	..	20	..
28.	Vegetable seeds	Pkt.	19587	21444	11438	6622	612	6058

TABLE 4.16 (B)
Physical Achievement under Tribal Sub Plan

Sl. No.	Particulars of benefit given	Unit	1986-87	1987-88	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	No. of Colonies benefitted	Nos.	237	3468	603	225	417
2.	No. of families benefitted	"	9385	12175	13579	5740	12077
3.	Area benefitted	Ha.	5569.94	9780	3595	1068.87	3226.89
4.	Coconut Seedlings	Nos.	141514	42731	61367	36029	91782
5.	Rooted Pepper cuttings	"	84685	82160	352818	123179	79805
6.	Clove Seedlings	"	..	900	..	..	..
7.	Mango grafts	"	40	1698	..	965	443
8.	Nutmeg Seedlings	"	..	..	..	322	..
9.	Paddy Seeds	Kg.	..	..	1010	680	375
10.	Land Reclamation work	M ³	..	..	..	1600	..
11.	Soil Conservation work	Ha.	..	..	24.00	..	..
12.	Construction of mud wall	M ³	..	..	..	..	10410
13.	Knapsack Sprayers	No.	..	67	422	..	6
14.	Rocker Sprayers	"	..	242	363	31	25
15.	Power Sprayer	"	..	3	..	..	..
16.	Paddy thresher	"	..	..	..	..	..
17.	Power tiller	"	..	12	5	..	..
18.	Tractor	"	..	3	7	..	..
19.	Metallic Storage Bin	"	275	..	..	52	..
20.	Rubber Roller	"	..	..	..	..	..
21.	Construction of Biogas Plant	"	..	..	..	..	..
22.	Smokeless Oven	"	..	..	..	..	..
23.	Renovation of Irrigation Well	"	..	16	25	14	8
24.	Pump House	"	..	..	..	..	..
25.	Agro Service Centre	"	..	3	5	..	2
26.	Pumpset Installed	"	..	10	..	..	1
27.	Groundnut Seeds	"	..	..	..	1400	1600
28.	Vegetable seeds	Pkt.	1948	6950	900	2000	1192

.. TABLE 4.17
Marketing Services Rendered by Co-operative Institutions

Sl. No.	Commodity	1989-90		1990-91	
		Quantity (MT)	Value (Rs. lakhs)	Quantity (MT)	Value (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)
I. General Marketing Federation					
1.	Copra	2675	427.5	4550	843.20
2.	Pepper & other spices	262.00	126.8	174	88.40
3.	Defence Supply	..	422.1	..	141.74
4.	Fertilizer	43803	798.2	57900	1011.18
5.	Pesticides	..	72.8	..	107.74
6.	Coconut oil & cake	..	258.00	..	306.55
II. Rubber Marketing Federation					
1.	Rubber	24492	6498.7	28662	6270.15
2.	Fertilizer	26332	410.44	28795	489.73
3.	Aerial Spraying	51425 Acres		60,000 Acres	
III. Central Arecanut and Cocoa Marketing and Processing Co-operative Limited (CAMPCO)					
	Arecanut	2391.90	6710.17	1997.30	8544.00
	Cocoa Pods	158.29	29.47	104.76	17.92
	Wet Beans	171.15	129.25	193.94	150.04
	Dry Beans	0.78	1.78	3.17	7.58
IV. KERAFED					
	Copra	28.700	..	11.000	..

TABLE 4.28
Details of Wild Life Sanctuaries

Sl. No.	Name of Wildlife Sanctuary/National Park	Area (Ha.)	District	Headquarters	Year of formation
(1)	(2)	(3)	(4)	(5)	(6)
1.	Neyyar Wildlife Sanctuary	12800	Thiruvananthapuram	Neyyar Dam	1958
2.	Peppara "	5300	do.	Peppara Dam	1983
3.	Shendurny "	10032	Kollam	Thenmala	1984
4.	Idukki "	7760	Idukki	Painavu	1976
5.	Eravikulam National Park	9700	do.	Eravikulam	1978
6.	Chinnar Wildlife Sanctuary	9044	do.	Chinnar	1984
7.	Thattekkad Bird Sanctuary	2516	do.	Thattekkad	1983
8.	Thekkady Wildlife Sanctuary	77754	do.	Thekkady	1950
9.	Peechi-Vazhani "	12500	Thrisur	Peechi Dam	1953
10.	Chimmony "	1000	do.	Chimmony	1984
11.	Parambikulam "	27414	Palakkad	Parambikulam	1985
12.	Silent Valley National Park	8952	do.	Maunarkkad	1985
13.	Wayanad Wildlife Sanctuary	34444	Wayanad	Sultan Bethery	1985
14.	Aralam "	5500	Kannur	Aralam	1984

IRRIGATION AND POWER

Major and Medium Irrigation

The performance of this sector during the Seventh Five Year Plan and the following two Annual Plan periods has not been encouraging. For various reasons most of the schemes targetted for commissioning during this period could not be completed as scheduled. This has resulted in shortfalls in physical targets and in enormous escalation of costs. The details of physical achievement during 1990-91 are given in Appendix 5.1. Only in Kallada Irrigation Project an area of 2615 ha. (net) or 3922 ha. (gross) has been brought under irrigation during 1990-91. The investment made in this sector during 1990-91 is Rs. 6257 lakhs. The target of physical achievement for the year is 58216 ha. (gross) while the achievement has been negligible. The details regarding year of starting, latest cost, expenditure etc. of ongoing irrigation projects are given in Appendix 5.2.

5.2 Till the end of 1989-90 the total investment in major and medium irrigation schemes amounted to Rs. 729 crores and area benefited was 1.84 lakh ha. (net) or 3.83 lakh ha. (gross). During 1990-91 total expenditure on these schemes amounted to Rs. 6257 lakhs and area benefited was 2615 ha. (net) or 3922 ha. (gross). Thus till the end of 1990-91 the total investment on major and medium irrigation projects aggregated to Rs. 791.67 crores benefiting an area of 1.86 lakh ha. (net) or 3.86 lakh ha. (gross).

Minor Irrigation

5.3 The total area brought under minor irrigation schemes till the end of 1989-90 was 1.28 lakh ha. (net) or 1.52 lakh ha. (gross) by spending an amount of Rs. 160.25 crores. During 1990-91 an amount of Rs. 1275 lakhs was spent for surface water Development and an area of 10726 ha. (net) or 12243 ha. (gross) has been brought under irrigation through various categories of Minor Irrigation works. The details of physical and financial achievement during 1990-91 are given in Appendix. 5.3

5.4 During the year under review 102 M. I. class I works, 67 M. I. Class II Works, 51 Lift irrigation works were completed. 74 works in connection with the repairs to M. I. structures and 7 works in IPD yelah units, 20 works for the benefit of scheduled caste and 14 works for the benefit of scheduled tribes were also under taken during the year 1991. The details of pending works, works proposed during 1990-91 and works completed during the year are given in Appendix. 5.4.

Flood Control and Anti-Sea Erosion

5.5 Flood Control measures for the flood prone areas could not be taken up in the State as part of comprehensive plan during the previous plan periods

for lack of funds. Piecemeal works were taken up and this helped to solve the problem only in certain areas to a limited extent. By the end of Seventh Plan period, the cumulative total physical achievement under flood control programme was protection of 32067 ha. of land by spending Rs. 1971 lakhs. The works being done under this sector are mainly construction of embankment retaining walls, bed bars, permeable groynes etc. to protect the banks of the river from the ravages of floods. During 1990-91 the outlay provided for this sector was Rs. 150 lakhs. Out of this Rs. 20 lakhs was for investigation works. The expenditure during 1990-91 was Rs. 172.97 lakhs and an area of 2075 ha. was protected from the ravages of flood.

5.6 Till the end of the Seventh Plan period the cumulative expenditure on Anti-sea erosion work was Rs. 91.55 crores and the cumulative total physical achievement was 311.37 km. of new sea wall and 43.12 km. of reformation of old sea wall to standard size. During 1990-91 a total amount of Rs. 888.29 lakhs was spent against an outlay of Rs. 930 lakhs provided for works for constructing 5 km. of new sea wall and 2.65 km. of reformation works. In the total expenditure of Rs. 888.29 lakhs, the actual central assistance received for 1990-91 was only Rs. 205 lakhs though the amount actually due was much higher. Thus till the end of March 1991 the total amount spent on Anti-sea erosion works was Rs. 100.44 crores and cumulative achievement was construction of 316.67 km. of new sea wall and reformation of 46.04 km. old sea wall to standard size.

5.7 The details of physical and financial achievement of flood control programmes and anti-sea erosion works are given in Appendix 5.5. The details of pending works, works under taken during 1990-91 and works completed during 1990-91 are given in Appendix 5.6.

Command Area Development

5.8 The Command Area Development Programme is conceived of as an integrated approach for orchestrating all the activities crucial for increasing agricultural productivity in the command areas of completed irrigation projects through better utilisation of irrigation potential already created. The main activities of command area development programme are construction of field channels, field drains, land development programmes; introduction of warabandhi system, introduction of demonstration and adaptive trials for better water management practices and scientific and improved methods of cultivation etc. The activities of command area development gained momentum only by the end of Seventh Plan period. Till the end of Seventh Plan period, an amount of Rs. 1475.79 lakhs was spent for this programme and

cumulative benefit has accrued over an area of 42583 ha., During 1990-91, an amount of Rs. 802.56 lakhs was spent. The area benefited by the programmes during 1990-91 was 14450 ha. Thus till the end of 1990-91 the total area benefited by the CADA programme was 57033 ha. spending a total amount of Rs. 2278.37 lakhs. At present, command area development activities are implemented in the command areas of the 14 projects, of the State viz., Chalakudy, Cheerakuzhy, Chitturpuzha, Gayathri, Kuttiady, Malampuzha, Mangalam, Neyyar, Pamba, Peechi, Periyar Valley, Pothundy, Vazhani and Walayar. The details of physical and financial achievement of CADA programme are given in Appendix 5.7.

Power Development

5.9 The total investment in power development in the State upto the end of VII Plan period was Rs. 115430 lakhs. The installed capacity of the completed hydro-electric projects as on March 1990 is 1476.5 MW. During 1990-91 as against the budget allotment of Rs. 13542 lakhs, actual expenditure was Rs. 12493.12 lakhs. Since no project was completed and commissioned 1, no additional capacity was created during the year under review. The growth of Kerala Power System at a glance during 1990 and 1991 is given in Appendix 5.8.

5.10 The power generation during the year 1990-91 was 5490 MU as against 5075 MU during 1989-90. This 8% increase in power generation was mainly because of good monsoon and inflow of water to the reservoirs. The project wise details of installed capacity, energy potential and power generated during 1990-91 are given in Appendix 5.9. The import of power during 1990-91 has shown an increase of 2% from 1989-90 i.e. from 1159.7 MU to 1303.8 MU. The export of power has shown a decrease of 95% i.e. from 103.6 MU in 1989-90 to 4.7 MU in 1990-91.

5.11 During 1990-91 there were 15 hydro-electric schemes of various capacities in different stages of implementation in the State. The details of present status and tentative year of commissioning of these are given below:

Hydro-Electric Schemes	Commissioning Programme	Present Stage
(1)	(2)	(3)
1. Azhutha Diversion (57 MU) under Idukki Stage II	93-94	Works gaining momentum. Out of 4000 m. tunnel driving required 1802 m. has been completed. Diversion weir works started
2. Kakkad (50 MW-262 MU)	93-94	Dams completed. Power tunnel driving 7688 m. completed out of the total 7707 m. IC tunnel driving 3112 m. completed out of the total 3160 m. Power House structure almost over. Erection of EOT Crane completed. Erection of generating machinery in progress.

3. Kallada dam toe Power Station (15 MW - 53 MU)	92-93	Construction of the Dam toe power house building nearing completion. EOT Crane erected and erection of generating machines in progress, aiming at commissioning of one Unit in 4/1992.
4. Lower Periyar (180 MW-493MU)	94-95	Power tunnel driving over and lining is in progress. Excavation for dam, pressure shaft, surge and power house are pailly completed. Contracts with M/S. NPCC for the above components of the Project were terminated due to slow progress. Fresh tenders are being invited for the balance works. Supply of generating equipment is in progress
5. Malampuzha dam toe power station (2.5 MW-5.6 MU)	92-93	Orders have been placed for generating equipment. Contract was also awarded for the construction of power house building and works are in good progress.
6. Madupetty Dam toe power station (2 MW-6.4 MU)	92-93	Orders have been placed for the generating equipment. Excavation for power house building almost over. Contract settled for the balance works of Power House and preliminary works started.
7. Malankara Dam toe power station (7 MW-36 MU)	93-94	First Stage excavation for Power House completed. Tenders for PH building being invited. Tenders received for supply and erection of generating equipment are under consideration of Board.
8. Chimoni dam toe power station (2.5 MW-6.5 MU)	92-93	First Stage excavation for in complete contract settled for the construction of Power House building and connected works. Orders have been placed for the supply and erection of generating equipments.
9. Peppara Dam toe power Station (9MW-11.5 MU)	92-93	Foundation excavation of Power House partly completed. Earlier contract termination and fresh contract settled for construction on Power House building. Orders also placed for supply and erection of generating equipment.
10. Pooyankutty Stage I (240 MW-665 MU)		Project sanctioned in 8/86. Sanction from Government of India for the forest clearance required for the Project is expected soon.
11. Kuttiar Diversion (37 MU) to Idukki	93-94	Preliminary & enabling works land acquisition works are in progress. Contract awarded for main works.
12. Vadakkepuzha Diversion (12 MU) to Idukki Reservoir	93-94	Preliminary and enabling works and land acquisition works are in progress. Tenders invited for supply of pumps.

	(1)	(2)	(3)
13.	Vazhikkadavu Diversion (24 MU) to Idukki Reservoir	93-94	Preliminary and enabling works and land acquisition works are in progress.
14.	Poringalkuthu L. B. extension (18 MW-38 MU)	93-94	Preliminary and enabling works are in progress. Eviction problems at work almost settled and tenders are being invited for various civil works. Generating equipment ordered.
15.	Kuttiadi Tail race (2.5 MW-15 MU)	93-94	Tenders received for generating equipment. Civil works started in Board's land. Balance private land required for the project being taken possession.

5.12 The details of estimated cost, expenditure till the end of March 1991, year of starting, expected year of commissioning and energy potential of ongoing hydro electric projects in Kerala are given in Appendix 5.10.

5.13 The per capita consumption of power in the State during 1991 was 185.6 Kwh as against the All India per capita consumption of 236 Kwh. The per capita power consumption in the State has been far below when compared with the Southern States, Tamilnadu (295 Kwh), Karnataka (273 Kwh), Andhra Pradesh (227 Kwh), Maharashtra (405 Kwh).

5.14 The transmission and distribution loss as percentage of energy available for sale has come down from 21.96% in 1990 to 21.57% during 1991. This may be due to the system improvement works undertaken during the year 1991.

5.15 Pattern of power consumption by various categories of consumers and revenue collected by the sale of power during 1990-91 is given in Appendix 5.11

5.16 Under transmission and distribution sector 5 nos. of 46 km. 66 KV lines, 1105 km. 11 KV lines, 5946 km. 3 phase LT lines were commissioned during 1990-91 three new 110 KV sub station and eight, 66 KV sub station were opened during the year. The achievement in the distribution sector during 1990-91 is given below.

Sl. No.	Particulars	As on 31-3-1990	Additions during 1990-91	As on 31-3-1991
(1)	(2)	(3)	(4)	(5)
1	Total no. of consumers (Nos.)	3,192,139	258,049	3,450,188
2	11 KV lines (KM)	19,716	1,105	20,521
3	LT 3 phase line (KM)	37,996	5,946	101,884
4	LT single phase line (KM)	57,942		
5	Street lights (Nos.)	4,98,493	23,767	5,22,260
6	No. of transformers	16,394	1,444	17,838

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5.17 There was no load shedding due to power cut during 1990-91. However during exigencies like shortage of machines or import of power, load shedding were made as per the requirements worked out by the load despatch station Kalamassery.

5.18 No tariff change has been made during 1990-91. The total revenue of KSEB from the sale of power, revenue, subsidies and other income works out Rs. 29093.58 lakhs as against Rs. 26997.75 lakhs during the previous year 1989-90. After meeting all the expenses the accounts shows deficit of Rs. 1831.84 lakhs during the year 1991 as against a surplus account of Rs. 1184.63 during the previous year.

Non Conventional Sources of Energy

5.19 A number of schemes are being implemented for the development of non conventional source of energy by KSEB and ANERT. ANERT is the nodal agency in the State for implementing and popularising various programmes for the development of non conventional sources of energy and for the implementation of Integrated Rural Energy Planning Programme (IREP).

5.20 National programme in Improved chulahs (NPIC) is implemented in the State with active participation of voluntary organisations through selected IREP Blocks. As against the target of 50,000 chulahs distribution in 1990-91, the actual achievement was 68285 registering an increase of 36% over the target. This highly employment oriented programme was creditably noted by the Government of India. Major achievement under IREP during 1990-91 include installation of 7854 fixed chulahs, 112 community chulahs, 5 wind mill pumping systems distribution 23828 portable chulahs, improved kerosenes stoves, 862 reducers and 85 grameen sheethals Under Solar Thermal Programme as on 1991, 58 Solar water heater systems with a capacity of 6030 litre per day (LPD) have been installed in the State. This include 39 industrial type units, 15 domestic units and 4 demonstration units, 4 solar drier, 2 large scale systems and 9 solar stills and 160 solar cookers were installed till the end of 1990-91; 4 gasifier engines of 5 km. (water pumping) capacity have been installed till the end of 1990-91. During 1991 one such unit was installed in M. A. Engineering College, Kothamangalam. Under micro hydel programme, construction of 2 micro hydro electric projects, one at Sugandhagiri and other at Poolot with 10 KW capacity each, were completed during 1990-91. These plants were constructed using indigenously designed turbine for which financial assistance from the Department of Science and Technology Government of India was available.

INDUSTRY

General Review

The tempo of registration of new small scale industrial units initiated during the Seventh Five Year Plan, especially during its latter half, continued unabated during 1990-91. The number of small scale industrial units registered during the last two years of the Seventh Five Year Plan, that is, during 1988-89 and 1989-90 was 8236 and 8271 respectively. It was an all-time record. During 1990-91, there was a further increase of 7 per cent in the number of SSI units registered, over that in the previous year. During the year, 8847 new units were registered in the State. About forty three thousand new employment are estimated to have been created in these units. These units with an estimated investment of Rs. 98 crores have produced goods and services worth about Rs. 299 crores. Added importance is being given in starting women's industrial units and as a result, 584 units were started by women entrepreneurs during the period. Entrepreneurs belonging to Scheduled Castes and Scheduled Tribes are also coming forward to start small scale industries, as is evident from the fact that 552 units were started by Scheduled Castes and 57 by Scheduled Tribes.

6.2 The pattern of consumption of power by industrial consumers shows that there was an increase in the quantum of power consumed in the small scale sector, while it has decreased marginally in the case of Large and Medium sector. Consumption of power of low and medium voltage by industrial consumers during 1990-91 was 323 mu which was 9.5 per cent higher than the previous year's consumption of 295 mu. On the other hand the consumption of power by industrial consumers of High and Extra High Voltage has decreased by 2.5 per cent during 1990-91 to 2345 mu. from 2406 mu. during the previous year.

6.3 Around two-thirds of the 52 State Public Sector Industrial Units reviewed were working on loss during 1990-91. Only 18 out of 52 units reviewed were having profit during the year. These 18 units together earned a net profit of Rs. 21.08 crores, of which 70 per cent was contributed by four chemical industries viz, Travancore Titanium Products Limited, Travancore Cochin Chemicals Ltd., Travancore Cements Ltd. and Malabar Cements Ltd. Thirty three units, for which data are available, have together incurred a total loss of Rs. 55.48 crores. All the subsidiary companies of the Kerala State Industrial Enterprises were working on loss during 1990-91. Out of the 52 units reviewed, 39 units had accumulated loss amounting to a total of Rs. 415.43 crores as on 31st March, 1991 against the total paid up capital of Rs. 283.91 crores for all these units put together as on that date. The amount of loss incurred by 26 companies have far exceeded their paid up capital. Kerala Minerals and Metals Ltd. with a loss of Rs. 86.46 crores,

Transformers and Electricals Kerala Ltd. with Rs. 44.72 crores, Kerala State Cashew Development Corporation Ltd. with Rs. 43.27 crores etc. top the list of loss making State public sector industrial units.

6.4 Two new Government companies viz; Kerala Police Housing and Construction Corporation Ltd. and Kerala Transport Development Finance Corporation Ltd. have been registered during 1990-91, enhancing the total number of Government companies from 100 to 102. There was a net addition of 334 Joint Stock Companies in the State during the year, from 3923 in 1989-90 to 4257 in 1990-91.

6.5 Seventeen medium and large industrial projects were completed with the financial assistance of Kerala State Industrial Development Corporation during 1990-91. With this, 181 industrial projects were completed with the financial assistance of the Corporation since its inception. The activities of the Corporation are expected to get a boost with the implementation of the New Industrial Policy of the State Government.

6.6 Central investment in industrial projects in Kerala during 1989-90 was Rs. 177 crores, taking the level of total Central investment in the State to Rs. 1701 crores by the end of March, 1990, from Rs. 1524 crores in March, 1989. However, the percentage share of the State in the total Central sector investment has dwindled from 3.24 in March 1975 to 1.50 by the end of March, 1990.

6.7 There has been marked improvement in the industrial relations of the State. Substantial reduction has taken place in the number of industrial disputes and consequent loss of mandays. There were 48 industrial disputes during 1989 affecting 64103 workers. This has come down to 38 affecting 7061 workers as at the end of 1991. There was a drastic reduction in the loss of mandays from 14.67 lakhs in 1989 to 3.92 lakhs in 1990.

6.8 Traditional Industries like Coir and Cashew continued to face the problem of shortage of raw materials for providing full time employment to the large number of workers engaged in these industries. Handloom Industry faces the twin problems of high cost of raw materials and labour and competition from power mills and the handloom sector of adjacent states where labour and raw materials are comparatively cheaper. In accordance with the policy directives contained in the new Industrial Policy of the State, Traditional Industries are being revitalised by restructuring the Co-operative sector. The financial base of the Co-operative societies in the Traditional Industries is being restructured by strengthening the share capital base, converting outstanding loans into share capital etc. Steps have been taken to implement the recommendations of the Special Task Force on Coir Industry in order to revamp this most important Traditional Industry. It is proposed to modernise coir industry

and introduce mechanisation in a phased manner in order to make coir products competitive at national and international levels.

6.9 There was a 16 per cent increase in the production of goods and services and 21 per cent increase in sales in the Village Industries Sector during 1990-91. Employment in this sector increased by 3711 to 192901 during the year from 189190 in the previous year. Production in monetary terms increased by a little over Rs. 10 crores to Rs. 74.78 crores in 1990-91 from Rs. 64.43 crores in 1989-90.

6.10 The State Government have declared Sericulture as a Village Industry and the programme is being implemented by a separate wing of the Khadi and Village Industries Board. An additional area of 4887 acres has been brought under Sericulture during 1990-91 and 5052 acres during the first 9 months of 1991-92. During 1990-91, 1165 rearing units were established and 60 tonnes of cocoon produced. The establishment of 540 sericulture co-operative societies during 1990-91, another 48 societies during the first 9 months of 1991-92 and starting 2 silkworm seed production centres, 11 cocoon purchase centres, 5 silk reeling units and 3 Demonstration-cum-Training Centres were remarkable achievements in the development of Sericulture to make it a major employment generating Village Industry in the State.

6.11 The announcement of the State Government's Industrial Policy during September 1991 is a major landmark in the industrial development of the State. Various elements of the Policy encompass measures for the development of all the industrial sectors of the State. Special features of the policy are speedy issue of various licences for starting of industries, enhanced incentives, measures for the revival of loss making public sector industrial units, restructuring of industrial co-operatives, revamping of traditional industries, provision of industrial infrastructure facilities, maintenance of peaceful industrial climate, special incentives for attracting NRI investment etc. It is hoped the various steps included in the new Industrial Policy Statement would pave the way for the all-round industrial development of the State.

Working Factories and Employment

6.12 In Kerala there were 12674 registered working factories as at the end of December, 1990 (as per the new registration list prepared by the Directorate of Factories and Boilers from the year 1988 onwards). The total number of factories increased by 701 during the year 1990, from 11973 marking an increase of 5.85 per cent over the previous year. The increase in the number of factories during 1990 has been noticed in all the districts excepting Pathanamthitta and Idukki. More than 16 per cent of the total number of factories in the State as at the end of December, 1990 was accounted for by Ernakulam District where it stood at 2075. Maximum increase in the number of factories was noticed in Thrissur district where it increased from 1668 in December 1989 to 1815 by the end of 1990.

6.13 During the year, 1990, the total number of workers employed in the registered factory sector in the State has increased by 9356 showing an increase of 2.71 per cent over the previous year's level of 3.46 lakhs.

It stood at 3.55 lakhs as at the end of December, 1990. The number of workers in all the districts except Kollam has increased during the year. Maximum increase was noticed in Ernakulam district where it stood at 77,889 as on 31st December, 1990 as against 74,974 in December 1989. The district wise distribution of registered working factories and workers, employed therein during 1989 and 1990 is furnished in Table 6.1.

TABLE 6.1

Registered Working Factories in Kerala

(As on 31st December)

District	Number of Factories		Employment (Nos.)	
	1989	1990	1989	1990
(1)	(2)	(3)	(4)	(5)
1. Thiruvananthapuram	542	638	25685	26836
2. Kollam	830	878	25251	25035
3. Pathanamthitta	294	289	6651	6679
4. Alappuzha	658	712	22609	23583
5. Kottayam	833	896	19890	20503
6. Idukki	304	304	11865	11947
7. Ernakulam	1954	2075	74974	77889
8. Thrissur	1668	1815	43709	44947
9. Palakkad	1355	1412	28084	29093
10. Malappuram	687	719	12678	13037
11. Kozhikode	1416	1443	41120	41498
12. Wayanad	125	131	3477	3537
13. Kannur	1140	1173	27419	27889
14. Kasaragod	167	189	2393	2660
Total	11973	12674	345805	355161

Source: Department of Economics and Statistics, Thiruvananthapuram

Joint Stock Companies in Kerala

6.14 There were 4257 Joint Stock Companies in Kerala as at the end of March, 1991. These included 3551 private limited and 706 public limited companies. During 1990-91, 356 companies comprising of 320 private limited and 36 public limited companies were newly registered in the State while 20 companies including 18 private limited and two public limited companies were wound up or struck off. Two companies were transferred to other States, during 1990-91. Thus the net addition to the total number of joint stock companies in the State during 1990-91 was 334. Total number of Government companies registered in the State increased from 100 to 102 during this period. They included 80 private limited and 22 public limited companies. Two new companies registered in the State

Sector during 1990-91 are the Kerala Police Housing and Construction Corporation Limited and the Kerala Transport Development Finance Corporation Limited. The details of Joint Stock Companies in Kerala as on 31-3-1991 are furnished in Table 6.2.

TABLE 6.2
Joint Stock Companies in Kerala

Particulars (1)	Private Limited	Public Limited	Total
	(2)	(3)	(4)
1. Number of Joint Stock Companies in Kerala as on 31-3-1990	3251	672	3923
2. Number of Companies Newly Registered during 1990-91	319	35	354
3. Number of Joint Stock Companies Transferred from other States during 1990-91	1	1	2
4. Number of Companies Wound up/Struck off during 1990-91	18	2	20
5. Number of Companies Transferred to other States during 1990-91	2		2
6. Net Addition to the Total Number of Joint Stock Companies in Kerala during 1990-91 Item (2+3)-(4+5)	300	34	334
7. Total number of Joint Stock Companies in Kerala as on 31-3-1991 (Item 1+6)	3551	706	4257
8. Total number of Government Companies Registered in Kerala as on 31-3-1990	78	22	100
9. Number of Government Companies, Registered in Kerala during 1990-91	2	..	2
10. Number of Government Companies Wound up during 1990-91	..	..	..
11. Net Addition to the Total number of Government Companies during 1990-91 (Item 9-10)	2	..	2
12. Total number of Government Companies in Kerala as on 31-3-1991 (Item 8+11)	80	22	102

Source: Registrar of Joint Stock Companies, Kerala.

Industrial Promotion Agencies

Kerala State Industrial Development Corporation Limited

6.15 This corporation, engaged in the promotion of large and medium scale industries in the State has promoted/sponsored/assisted 202 specific projects in the public, joint and private sectors as on 31-3-1991. Out of these, 147 companies have completed and commissioned as many as 181 projects comprising new, expansion, diversification, modernisation and rehabilitation. Forty five companies had their projects under

different stages of implementation. Apart from these, two units were assisted for restructuring their capital base.

6.16 The cumulative gross financial assistance sanctioned by the Corporation till the end of March, 1991 totalled at Rs. 199.24 crores. This included share capital and underwriting assistance of Rs. 37.07 crores, loan assistance of Rs. 138.61 crores and guarantee assistance of Rs. 23.56 crores. Net sanctions aggregated to Rs. 165.18 crores and total disbursement amounted to Rs. 132.98 crores. The disbursement consisted of share capital assistance of Rs. 18.78 crores, loan assistance of Rs. 93.30 crores and guarantee for Rs. 20.90 crores. The cumulative gross fixed investment in the 147 companies which have completed their projects with financial assistance of this corporation as on 31-3-1991 has been estimated at Rs. 580 crores. These units employ around 38,000 persons directly.

6.17 During the financial year 1990-91, 17 projects involving a total investment of Rs. 28.31 crores and employment potential of 1350 persons were completed and commissioned with the financial support of the Corporation. These consisted of 10 new and seven modernisation/expansion/diversification projects. Besides, 52 projects falling under various industrial categories and involving an estimated investment of Rs. 105.47 crores were under implementation in March 1991. Ten projects were under finalisation whereas 228 projects covering a wide range of products were under different stages of investigation/study. The Corporation obtained a Letter of Intent and seven SIA Registrations in 1990-91. In addition to these, during 1990-91 the Corporation signed MOUs with entrepreneurs and business groups for the development and implementation of 45 new projects estimated to cost Rs. 1300 crores.

6.18 The Corporation earned a gross income of s. 406.22 lakhs in 1990-91 as compared to Rs. 339.05 lakhs in 1989-90, marking a growth of 20 per cent over that of the previous year. The net loss incurred by the Corporation during 1990-91 was Rs. 112.46 lakhs as compared to Rs. 161.67 lakhs in the financial year 1989-90. The Corporation has changed its accounting system since 1-4-1988. It is reported that if the Corporation had followed accrual system of accounting, as in the earlier periods, the surplus for the year 1990-91 would have been Rs. 612.25 lakhs as against Rs. 490.23 lakhs in 1989-90. The trends in the financial assistance sanctioned and disbursed by the Corporation during the period from 1988-89 to 1990-91 are furnished in Table 6.3.

TABLE 6.3
Trends in Financial Assistance Sanctioned and Disbursed by Kerala State Industrial Development Corporation Limited during the last three years from 1988-89 to 1990-91.

Mode of Assistance (1)	(Amount in Rs. lakhs)					
	1988-89		1989-90		1990-91	
	Gross Sanction	Disbursement	Gross Sanction	Disbursement	Gross Sanction	Disbursement
(1)	(2)	(3)	(4)	(5)	(6)	(7)
(a) Share Capital	121.45	36.64	315.27	174.16	823.80	276.82
(b) Loan	1952.36	837.25	1652.75	1176.89	1906.12	1174.85
(c) Guarantee	461.00	461.00	550.00	550.00	330.00	800.00
Total	2534.81	1334.89	2518.02*	1901.05	3029.92**	1751.67

Source:—Kerala State Industrial Development Corporation Limited.

*Inclusive of in-principle sanction of Rs. 127.70 lakhs as share capital and Rs. 80.00 lakhs as loan.

**Inclusive of in-principle sanction of Rs. 348.55 lakhs as share capital.

Kerala State Electronics Development Corporation Limited

6.19 The Kerala State Electronics Development Corporation, incorporated in 1972, has so far established nine manufacturing divisions of its own and eight subsidiary companies. In addition, it has promoted five joint ventures. The 'Keltron Group' of Companies are manufacturing a wide spectrum of electronic items consisting of consumer electronics and professional grade electronic products including control and instrumentation systems. During 1990-91, the manufacturing divisions of the Corporation employing 2624 persons directly has manufactured goods worth Rs. 36.65 crores. More than 40 per cent of the total value of production was contributed by the Communication Division. The Controls Division has manufactured items like electronic transmitters, analogue electronic control modules, panels and consols, pneumatic actuators with positioners etc., valued at Rs. 745 lakhs during this period. The sales turnover of the Keltron Group of companies decreased to Rs. 81.51 crores in 1990-91 from Rs. 84.10 crores in the previous year, registering a marginal decline of 3 per cent.

6.20 The provisional accounts on the performance of the Corporation during 1990-91 shows a net loss of Rs. 696 lakhs as against a net profit of Rs. 79 lakhs earned during the previous year. The accumulated loss of the Corporation stood at Rs. 23.97 crores against the paid up share capital of Rs. 61.42 crores as on 31-3-1991. The Corporation has drawn up a number of projects aimed at expansion/modernisation/diversification of its own divisions and those of its subsidiaries. Implementation of some of these projects helped the units concerned to achieve improved working results during the period under review. The State Government had provided an amount of Rs. 30 crores during Seventh Plan period for the execution of the projects undertaken by the Corporation. In addition to this, an amount of Rs. 800 lakhs has been released to the Corporation during the financial year 1990-91, more than 60 per cent of which is seen utilised as working capital.

Kerala State Industrial Enterprises Limited

6.21 Five Government owned manufacturing companies viz., the Kerala Soaps and Oils Limited, Kerala State Drugs and Pharmaceuticals Limited, Kerala State Detergents and Chemicals Limited, Kerala State Salicylates and Chemicals Limited and Travancore Plywood Industries Limited are being managed by the Kerala State Industrial Enterprises Limited, one of the holding companies of the State Government. The total value of goods manufactured by these companies during 1990-91 marginally decreased to Rs. 2039.21 lakhs from Rs. 2092.85 lakhs in the previous year. On the other hand, the total sales turnover of this group of companies registered a growth of 7.30 per cent during this period. It increased to Rs. 2182.05 lakhs in 1990-91 from Rs. 2033.63 lakhs in the previous year. All the companies in this group were working on loss during 1989-90 and 1990-91.

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6.22 The poor performance of the subsidiary companies of the 'KSIE' was due to various reasons. Both the Kerala Soaps and Oils Limited and Kerala State Detergents and Chemicals Ltd., were facing problems of marketing in the face of stiff competition from large scale private sector units. These two companies had been trying to get involvement of some private companies for utilising their spare capacity. The arrangement made by the Kerala State Detergents and Chemicals Limited with Hindustan Lever Ltd., has ended in 1990-91. The Kerala State Drugs and Pharmaceuticals Ltd., was facing serious financial difficulties due to delay in getting its dues from the Department of Health and Family Welfare of the State Government for drugs supplied. However, the Company managed to get sanction of Rs. 100 lakhs each in August, 1991 and November, 1991 from the State Government. The performance of the Vitamin 'A' plant of the Company was not satisfactory. This division incurred a loss of Rs. 325.43 lakhs during 1990-91. The formulation division of the Company earned a profit of Rs. 4.35 lakhs during the year, which is substantially less than Rs. 31.34 lakhs in the previous year. The Travancore Plywood Industries Ltd., has been facing the problem of nonavailability of quality timber. However, with the locally available timber, the Company could improve its production during 1990-91.

6.23 The Aspirin Plant of the Kerala State Salicylates and Chemicals Ltd., though declared open for commercial production on 1-4-1990, could not continue its operations during 1990-91. This was mainly due to serious capacity constraints in the plant on account of faulty designs and equipment supplied by the engineering consultants, M/s Kinetics Technology (I) Ltd. The Company has raised a claim for damages from the consultants and the matter is now in arbitration. In the meanwhile, the Company has made arrangements to utilise the services of the National Chemical Laboratory (CSIR), Pune for improving capacity utilisation in their Aspirin Plant.

6.24 During 1990-91, the 'KSIE' earned a revenue of Rs. 94.35 lakhs through air cargo operations as against Rs. 82.23 lakhs in the previous year. The Cargo Complexes handled 6920 MT of cargo in 1990-91 as compared to 7314 MT in the previous year. The 'Carrying and Forwarding' value of cargo handled during 1989-90 was Rs. 1332 lakhs and this has increased by over 120 per cent to Rs. 2932 lakhs during 1990-91. As per directions of the State Government, the Company has handed over the Air Cargo Complex at Thiruvananthapuram to the International Airport Authority of India with effect from 9-4-1991. The Company has a proposal to establish a cargo complex at Kozhikode. As part of domestic sales, the Emporium at Thiruvananthapuram being operated by the Company sold products worth Rs. 13.16 lakhs during 1990-91 as against Rs. 9.34 lakhs in the previous year. The Company has started trading of items like melamineware, glassware etc., in order to make the operation of the Emporium more profitable. The working of the 'KSIE' during 1990-91 ended with a net profit of Rs. 0.60 lakh as against Rs. 0.86 lakh in the previous year.

6.25 The Company has drawn up some projects aimed at improving the operations of its subsidiaries. The 100 per cent export oriented diversification project proposed for the Travancore Plywood Industries Ltd., envisages manufacture of Parquet Tile Boards. A private firm in Singapore has indicated their willingness to undertake a feasibility study, help the Company in importing proper machinery and buy back the entire products for marketing in European countries.

Kerala State Textile Corporation Limited

6.26 Four textile mills managed by this Corporation viz., the Kottayam Textiles, Ettumanoor, Prabhuram Mills, Chenganoor, Malabar Spinning and Weaving Mills, Kozhikode and Edarikode Textiles, Malappuram have produced 26.08 lakhs kg. of cotton yarn during 1990-91 as against 19.57 lakhs kg. during the previous year. This shows an increase of 33 per cent over the previous year's production. The value of cotton yarn produced by these mills during 1990-91, on the other hand, increased only by 24 per cent to Rs. 1673.77 lakhs from Rs. 1349.94 lakhs in 1989-90. The knitwear and 'Kelastic' divisions of the Corporation manufactured items worth Rs. 16.50 lakhs during 1990-91 as against Rs. 11.34 lakhs in the previous year. The total sales turnover of the Corporation during 1990-91 amounted to Rs. 1797.92 lakhs registering an increase of 24.23 per cent over Rs. 1447.29 lakhs achieved during 1989-90. The working of the Corporation during 1990-91 ended with a net profit (provisional) of Rs. 97.46 lakhs before providing for taxation as against a net profit of Rs. 88.86 lakhs earned during 1989-90. The consolidated production details of the mills under the management of the Corporation are given in Table 6.4.

6.27 The Corporation could not complete the projects taken up for modernisation of the mills under its management. As regards the projects for the Kottayam Textiles and Prabhuram Mills, the major reason for the non-completion of the projects was the delay in getting items of machinery for which orders were placed long back. Plan funds provided during 1990-91 and 1991-92 towards the project for the Malabar Spinning and Weaving Mills were diverted, as per the directions of the State Government, for the one time settlement of the dues of the Sitaram Textiles Limited to the Industrial Finance Corporation of India. The Corporation has approached the Industrial Development Bank of India for an assistance of Rs. 250 lakhs towards this project. The Corporation has also drawn up a project for the expansion of the Edarikode Textiles at a total cost of Rs. 557 lakhs.

6.28 The Corporation has been operating two yarn banks, one at Kannur and another at Thiruvananthapuram for the supply of yarn handloom co-operatives at fair prices. These yarn banks were being operated with the financial assistance from Industrial Development Fund and Government were incurring loss during 1989-90 and 1990-91. The

loan assistance included in the Plan Budgets for the years 1990-91 and 1991-92 has also been diverted to the Sitaram Textiles Ltd., for the settlement of its financial dues.

TABLE 6.4

Consolidated Production Details of Malabar Spinning and Weaving Mills, Kottayam Textiles, Prabhuram Mills and Edarikode Textiles Managed by the Kerala State Textiles Corporation Limited

Year	Cotton Yarn		Cloth/other Items		Total Value of Production (Rs. lakhs)
	Production (Lakh Kg.)	Value (Rs. lakhs)	Production (Lakh Mtrs)	Value (Rs. lakhs)	
(1)	(2)	(3)	(4)	(5)	(6)
1986-87	13.86	468.16	11.28	59.31	527.47
1987-88	11.40	519.05	9.18	53.04	572.09
1988-89	NA	NA	NA	NA	963.00
1989-90	19.57	1349.94	..	11.34	1361.28
1990-91	26.08	1673.77	..	16.50	1690.27

Source: Kerala State Textile Corporation Limited, Thiruvananthapuram.

Kerala State Industrial Products Trading Corporation Limited.

6.29 This Corporation was formed in 1976 for the canalisation of the sale of the products manufactured by the State sector industrial undertakings. It has been functioning as the sole selling agent for the products of the Travancore Titanium Products Limited since 1979. The main activity of the Corporation during 1990-91 was confined to the sale of titanium dioxide. The Corporation sold 12,898 MT of titanium dioxide in 1991. The net profit earned by the Corporation increased to Rs. 34.09 lakhs in 1990-91 (after remitting an amount of Rs. 21.87 lakhs as service charges to the State Government) from Rs. 29.79 lakhs in the previous year. The Corporation undertook a new venture in functioning as the indenting agent for M/s Kerala Minerals and Metals Limited from 15th February, 1991. But this arrangement has been discontinued since August, 1991. The sale of 12,898 MT of titanium dioxide, during the period from January, 1991 to December 1991, achieved by evolving an aggressive marketing strategy was an all-time record in the history of this corporation. Negotiations are under way with some of the State sector undertakings to serve as their consignment/marketing agent.

Government Owned Companies

6.30 There were 28 manufacturing industrial enterprises in the public sector as on 31st March, 1991 with paid up capital fully owned by the State

Government. The Kerala State Industrial Enterprises Limited was managing five of these units viz., Kerala Soaps and Oils Limited, Kerala State Drugs and Pharmaceuticals Limited, Kerala State Detergents and Chemicals Limited, Kerala State Salicylates and Chemicals Limited and Travancore Plywood Industries Limited during 1990-91. The Steel Industrials Kerala Limited, another holding company of the State Government was managing two companies viz., Autokast Limited and Steel and Industrial Forgings Limited. The Kerala Special Refractories Limited and Kerala Hitech Industries Limited were under implementation. The Trivandrum Rubber Works Limited, Astral Watches Limited and Kerala Garments Limited were being managed by their holding Companies viz., Kerala State Road Transport Corporation, Kerala State Industrial Development Corporation Limited and Kerala State Handloom Development Corporation Limited respectively. Some of the companies under this group have yet to finalise their accounts for the financial year 1990-91 and hence details on the performance of all the companies are not available. However, an attempt is made in the following paragraphs to analyse the performance of this group of companies during the financial year 1990-91, on the basis of the details available.

6.31 The details available on the performance of the Government owned companies are given in Appendix 6.1 to 6.3. The total capital invested in respect of 21 units included in Appendix 6.1 has increased to Rs. 482.24 crores by the end of March, 1991 from Rs. 411.95 crores in March, 1990, registering an increase of 17.06 per cent over the year. The major contributors to the total capital invested as on 31-3-1991 were the Kerala Minerals and Metals Limited, Malabar Cements Limited, Autokast Limited, Kerala Electrical and Allied Engineering Company Limited, Steel Industrials Kerala Limited and Kerala State Drugs and Pharmaceuticals Limited. These six companies together accounted for about 74 per cent of the total capital invested as on 31-3-1991. On the other hand, the total number of employees engaged in these 21 companies increased only by 79 over the year from 9937 in March, 1990 to 10016 in March, 1991. The Kerala Minerals and Metals Limited and Malabar Cements Limited were employing more than 1000 workers each during 1990-91. The details of capital invested and workers engaged in the Government owned companies as on 31-3-1990 and 31-3-1991 are furnished in Appendix 6.1.

6.32 Nineteen manufacturing companies included in Appendix 6.2 (excluding Kerala Electrical and Allied Engineering Company Limited and Sitaram Textiles Limited for which details are not available) produced goods valued at Rs. 187.78 crores during 1990-91 as compared to Rs. 150.17 crores in 1989-90. This shows an increase of 25.05 per cent over that of the previous year. Substantial improvement has been noticed in the value of goods produced by all the companies in this group during 1990-91 excepting Steel Industrials Kerala Limited. Kerala State Drugs and Pharmaceuticals Limited, Autokast Limited and Scooters Kerala Limited. Similarly, the sales turnover of all the 21 units except Autokast Limited, Scooters Kerala Limited, Kerala Premopipe Factory Limited,

Trivandrum Spinning Mills Limited and Kerala Electrical and Allied Engineering Company Limited has increased considerably during this period. The total Sales turnover of these 21 units increased to Rs. 196.20 crores during 1990-91 from Rs. 184.01 crores in the previous year marking an increase of 6.62 per cent. The value of production and sales turnover of the Government owned companies during 1989-90 and 1990-91 are shown in Appendix 6.2.

6.33 All the units under this group excepting Steel Industrials Kerala Limited, Malabar Cements Limited, Kerala Agro Machinery Corporation Limited and Kerala Clays and Ceramic Products Limited were incurring loss during the financial year 1990-91. Most of these units were facing problems with regard to shortage of raw materials and working capital during this period. The Steel Industrials Kerala Limited was faced with acute shortage of working capital and non-availability of critical raw materials of required size. The Ship Breaking unit at Beypore, run by this company presented rather disappointing performance mainly due to the delay in cutting and sale of arising of the vessel 'MV state of Madhya Pradesh'. Added to this, the Oil Rig Delta Mariner procured in November, 1990 remained unused till the end of the year with consequential heavy interest burden. On the other hand, the Ship Breaking Unit at Azhikkal achieved a turnover of Rs. 137 lakhs compared to Rs. 121 lakhs in the previous year and earned a net profit of Rs. 12 lakhs during 1990-91. The delay in the completion of dredging of Azhikkal river-mouth caused problems to this unit. In view of this, the Company is exploring the possibility of making small sea-going vessels in order to convert this unit into a small ship-building yard. The Foundry unit at Ottapalam and the General Engineering Works, Thuravoor, managed by the Company achieved a higher turnover during 1990-91. The Power Engineering Division obtained orders valued at Rs. 520 lakhs.

6.34 The Trivandrum Spinning Mills Limited could not achieve targeted capacity utilisation due to heavy breakdown of machinery, power failure and labour absenteeism. Despite all these, the Company produced 11.66 lakh Kg. of 40's count yarn during 1990-91 which is an all time record. The Kerala Automobiles Limited has been facing stiff competition from large scale industrial units in marketing their products. The working capital base of the Company has eroded due to continuous losses in the past. Possibility of getting additional working capital assistance from banks was also remote. The Kerala Minerals and Metals Limited was facing serious problems in marketing their product viz., Titanium dioxide on account of the reduction in the import duty on this item. The fall in price in the international market coupled with import liberalisation, kept the price of imported titanium dioxide much lower than that of the product of the Company. As a result, the stock of titanium dioxide produced by the Company started rising. The Company had to offer discount and credit facilities at varying rates from December, 1990 for increasing off take. In spite of this, the inventory levels continued to be high. The discount and credit facilities were withdrawn from September, 1991 in view of the inclusion of titanium dioxide in the 'Restricted' list by the Central Government. These adjustments in

the marketing strategy led the company to incur huge loss during 1990-91. The details of the installed capacity and its utilisation in respect of the Government owned companies are furnished in Appendix 6.3.

Government Majority Companies

6.35 The State Government was holding majority shares in the paid up capital of 22 manufacturing industrial units during 1990-91. The names of these units are given in Appendix 6.4. Among these, eight units 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 were under the Kerala State Electronics Development Corporation Limited. Nineteen companies in the Group of Government Majority Companies, that is, all companies except Keltron Electro Ceramics Limited, Keltron Crystals Limited and Sidkel Televisions Limited have furnished the details regarding their performance during 1990-91. The accounts of some of these units are subject to audit. An attempt is made in the following paragraphs, based on the details available, to review the performance of these companies during the financial year, 1990-91.

6.36 The total capital invested in the nineteen units included in Appendix 6.4 has increased to Rs. 160.23 crores by the end of March, 1991 from Rs. 130.89 crores in March, 1990. This shows an increase of a little over 22 per cent over that of the previous year. The major contributors to the total capital, invested as on 31-3-1991 were the Transformers and Electricals Kerala Limited, Traco Cable Company Limited, Keltron Component Complex Limited, Steel Complex Limited, Travancore Cochin Chemicals Limited and Keltron Power Devices Limited. These six units accounted for 79 per cent of the total capital investment as on 31-3-1991. The total number of workers engaged in this group of companies has registered only a marginal increase of 74 during 1990-91, from 8722 in March, 1990 to 7896 as at the end of March, 1991. The details relating to the capital invested and workers engaged in the Government Majority Companies as on 31-3-1990 and 31-3-1991 are furnished in Appendix 6.4.

6.37 The total value of products manufactured by the nineteen companies during the period 1990-91 was to the tune of Rs. 235.70 crores. It shows an increase of 27 per cent over the previous year's level of Rs. 185.72 crores. The value of production of all these companies excepting the Keltron Magnetics Limited, Keltron Power Devices Limited, Kerala Construction Components Limited and Travancore Sugars and Chemicals Limited has improved during 1990-91 as compared to that in the previous year. Substantial

increase was noticed in the case of Steel Complex Limited, Travancore Titanium Products Limited, Traco Cable Company Limited and Transformers and Electricals Kerala Limited. The sales turnover of these companies together has registered a growth of 21.57 per cent over the previous year's level, from Rs. 194.98 crores in 1989-90 to Rs. 237.04 crores during 1990-91. The sales turnover of all the companies excepting Keltron Magnetics Limited, Keltron Power Devices Limited and Travancore Sugars and Chemicals Limited improved during 1990-91 compared to that in the previous year. Substantial improvement was noticed in the sales turnover of Steel Complex Limited, Travancore Titanium Products Limited, Travancore Cochin Chemicals Limited and Traco Cable Company Limited during this period. The details pertaining to the value of production and sales turnover in respect of the Government Majority Companies during 1989-90 and 1990-91 are given in Appendix 6.5.

6.38 Among those units the details of which are available, nine units viz. Keltron Magnetics Limited, Keltron Component Complex Limited, Metal Industries Limited, Travancore Titanium Products Limited, Travancore Cochin Chemicals Limited, Travancore Cements Limited, United Electrical Industries Limited, Transformers and Electricals Kerala Limited and Forest Industries (Travancore) Limited were working on profit during the financial year, 1990-91. The Keltron Counters Limited, Keltron Power Devices Limited, Keltron Resistors Limited and Keltron Rectifiers Limited managed by the Kerala State Electronics Development Corporation Limited incurred a total loss of Rs. 424.42 lakhs during 1990-91. Though there was significant improvement in sales and production, the Keltron Resistors Limited could not earn profit due to various reasons such as increased interest burden and fixed costs. The production and sale of Keltron Counters Limited remained more or less static during the last two years mainly on account of a change in the product mix. There was a steep fall in the demand for their main product viz. PO meters which accounted for 60 per cent of the turnover in the previous year. Though the company diversified into new areas in defence products, production and sales did not pick up as expected. The main reasons for the poor performance of the Keltron Rectifiers Limited were the increase in salaries and wages, finance charges and low production. The Traco Cable Company Limited incurred huge loss during 1990-91 in spite of the higher value of production and sales turnover achieved during this period. This was mainly due to heavy interest burden and depreciation of their new unit at Thiruvalla. The main reason for the loss incurred by the Travancore Sugars and Chemicals Limited was the fall in sale of arrack and reduction in the quantity of cane crushed. The cost of sugar production increased to Rs. 1597 per quintal during 1990-91 from Rs. 1360 per quintal in the previous year.

6.39 The Travancore Titanium Products Limited manufactured 11503 tonnes of titanium dioxide during 1990-91 as against 9050 tonnes in the previous year. The production achieved during 1990-91 is the second highest record in the history of the Company. An all time record in monthly production of 1331 tonnes was achieved in July, 1991 as against the previous record of 1306 tonnes achieved in March, 1990. The Transformers and Electricals Kerala Limited achieved a sales turnover of Rs. 5225.03 lakhs during 1990-91. The Company earned a gross profit of Rs. 807.47 lakhs during this period and net profit (after providing for interest and depreciation amounting to Rs. 735.92 lakhs) of Rs. 71.55 lakhs. The rehabilitation scheme being implemented by the Company has enabled it to improve the working results substantially. The Forest Industries (Travancore) Limited was facing acute shortage of raw material viz., hardwood and paucity of funds for working capital. However, it could achieve a turnover of Rs. 238 lakhs during 1990-91. The Company could achieve this turnover by investing fresh working capital in stock-in-trade and debtors. The non-payment of debts by Government departments affected the working capital management of the Company adversely. The higher turnover achieved during 1990-91 enable the Company to earn a net profit of Rs. 23.45 lakhs during this period as against Rs. 2.25 lakhs in the previous year the details of installed capacity and capacity utilisation in respect of the Government Majority Companies during 1989-90 and 1990-91 are shown in Appendix 6.6.

Summary of Performance of State Public Sector Industrial Undertakings

6.40 Among the 52 State public sector manufacturing and promotional industrial undertakings the details on the working of which are available, 18 companies were working on profit during the financial year 1990-91. The total net profit earned by these 18 units during this period was Rs. 21.08 crores. More than 70 per cent of the total net profit was contributed by four units under the Chemical industries group viz. Travancore Titanium Products Limited, Travancore Cochin Chemicals Limited, Travancore Cements Limited and Malabar Cements Limited. Out of the eight units under the 'Engineering group' three units viz. Kerala Agro Machinery Corporation Limited, Steel Industrials Kerala Limited and Metal Industries Limited were working profitably. They earned a total profit of Rs. 217.69 lakhs during 1990-91. Under the 'Electronics' groups two units viz. Keltron Component Complex Limited and Keltron Magnetics Limited could earn profit during this period. Both the units under the 'Wood based' industries group viz. Kerala State Wood Industries Limited and Forest Industries (Travancore) Limited were working on profit during 1990-91. Out of five units under 'Electricals and Cables' group, two units viz. Transformers and Electricals Kerala Limited and United Electrical Industries could earn profit during this period.

6.41 On the otherhand, 34 State sector units were working on loss during the financial year '1990-91. The total loss incurred by 33 units (excluding Kerala State Salicylates and Chemicals Limited) during this period amounted to Rs. 55.48 crores. As per the details available, five units under the 'Engineering' group made a total loss of Rs. 11.25 crores during 1990-91 whereas five units including the holding company under the 'Electronics' group viz. Kerala State Electronics Development Corporation Limited incurred a total loss of Rs. 11.20 crores during this period. Kerala Minerals and Metals Limited was the only unit under the 'Chemical Industries' group which incurred loss during 1990-91. All the five subsidiary companies of Kerala State Industrial Enterprises Limited were incurring loss during this period. The Kerala State Salicylates and Chemicals Limited, though declared open for commercial production, could not continue its operations due to various technical constraints. The total accumulated loss incurred by 39 units among the 52 unit reviewed, amounted to Rs.415.43 crores as against their total paid up capital of Rs.283.91 crores by the end of March, 1991. Two units under the 'Chemical' group accounted for 25 per cent of the accumulated loss of Rs. 415.43 crores. They were the Kerala Minerals and Metals Limited and Malabar Cements Limited. The total accumulated loss of these two companies stood at Rs. 103.85 crores as on 31-3-1991.

6.42 The total paid up capital of the 52 State sector units reviewed has increased from Rs. 342.69 crores in March, 1990 to Rs. 373.49 crores as on 31st March, 1991 registering an increase of about nine per cent over the year. Total borrowings of these companies increased from Rs. 598.18 crores to Rs. 686.82 crores during this period. It increased by 14.82 per cent over the year. The total investment in these units in terms of their gross block has increased by 7.43 per cent during 1990-91. It stood at Rs. 495.38 crores as on 31-3-1991 as against Rs. 461.14 crores in March, 1990. The group-wise working results of these 52 State public sector undertakings are furnished in Appendix 6.7.

6.43 In spite of a number of corrective measures taken by certain State public sector units with the financial assistance from State Government and financial institutions from time to time in order to make their operations profitable, they are still incurring huge losses for various reasons. As a result, their accumulated losses have exceeded their paid up share capital by this time. Among the 52 units the details of which are available 26 units had a total accumulated loss of Rs. 353.03 crores against their total paid up capital of Rs. 138.57 crores as at the end of March, 1991. The details of the manufacturing and promotional units in the State sector whose accumulated losses have exceeded their paid up share capital by the end of March, 1991 are shown in Table 6.5.

TABLE 6.5

Details of Public Sector Industrial Undertakings whose Accumulated Loss Exceeded their Paid up Capital

(Amount in Rs. lakhs)

Name of Undertaking	Paid up Capital as on 31-3-1991	Accumulated Loss as on 31-3-1991
(1)	(2)	(3)
<i>Electronics</i>		
1. Keltron Counters Limited	393.90	541.61
2. Keltron Resistors Limited	139.81	177.01
3. Keltron Power Devices Limited	410.23	1071.76
4. Keltron Rectifiers Limited	274.36	740.87
<i>KSIE Group</i>		
5. Kerala Soaps and Oils Limited	185.59	2003.00
6. Kerala State Drugs and Pharmaceuticals Limited	420.00	1452.41
7. Travancore Plywood Industries Limited	48.58	671.99
8. Kerala State Detergents and Chemicals Limited	154.63	1072.93
<i>Chemicals</i>		
9. Kerala Minerals and Metals Limited	3093.27	8646.45
<i>Textiles</i>		
10. Trivandrum Spinning Mills Limited	214.99	526.43
11. Sitaram Textiles Limited	267.00	1700.90
<i>Electricals and Cable</i>		
12. Transformers and Electricals Kerala Limited	1207.54	4471.79
13. Metropolitan Engineering Co. Limited	63.17	334.49
<i>Engineering Industrie</i>		
14. Autokast Limited	345.00	2438.13
15. Steel and Industrial Forgings Limited	400.00	775.00
16. Kerala Automobiles Limited	293.00	895.00

(1)	(2)	(3)
<i>Ceramics and Refractories</i>		
17. Kerala Ceramics Limited	956.97	1382.95
18. Chalakudy Refractories Limited	326.64	377.11
19. Kerala Premopipe Factory Limited	34.50	64.79
20. Kerala Construction Components Limited	28.07	63.56
<i>Agro based Industries</i>		
21. Meat Products of India Limited	124.10	202.24
<i>Wood based Industries</i>		
22. Kerala State Wood Industries Limited	170.00	619.98
<i>Trading and Promotional Units</i>		
23. Kerala Small Industries Development Corporation Limited	451.59	533.51
24. Kerala Artisans Development Corporation Limited	33.81	50.66
25. Handicrafts Development Corporation of Kerala Limited	161.24	161.60
26. Kerala State Cashew Development Corporation Limited	3058.95	4326.56
Total	13856.94	35303.03

Central Sector Investment in Kerala

6.44 (Total industrial investment (in terms of gross block) under the Central sector in Kerala increased from Rs. 1524 crores in March, 1989 to Rs. 1701 crores by the end of March, 1990, constituting 1.50 per cent of the total Central investment of Rs. 113390 crores in the Country as a whole. The total Central sector investment in the Country increased by Rs. 16509 crores during the year from Rs. 96881 in the previous year recording an increase of 17 per cent. However, the investment made by the Central Government in the industrial sector in Kerala during this period was only Rs. 177 crores, accounting for a mere 1.07 per cent in the total investment. The Central Government have not set up any new industrial unit in the State except certain expansion/diversification projects of the existing units during the last few years. As a result, the percentage share of Kerala in the total Central sector industrial investment has dwindled to 1.50 per cent as on 31st March, 1990 from 3.24 per cent in March, 1975. The details of Central sector investment in the Country as a whole and Kerala at different intervals are given in Table 6.6.)

TABLE 6.6

Central Sector Industrial Investment in Kerala

Year	(Rs. in crores)		Percentage of Column(3) to Column(2)
	Investment (Gross Block) as on 31st March		
	All India	Kerala	
(1)	(2)	(3)	(4)
1970	3795	116	3.06
1975	6242	202	3.24
1980	18161	423	2.33
1985	47323	831	1.76
1986	56806	923	1.62
1987	68052	1074	1.58
1988	82180	1298	1.58
1989	96881	1524	1.57
1990	113390	1701	1.50

6.45 The States of Maharashtra, Andhra Pradesh, West Bengal, Bihar, Madhya Pradesh and Tamil Nadu and the Union Territory of Delhi have together received 70 per cent of the total investment made by the Central Government in the industrial sector of the Country during 1989-90. Each of these States/Union Territory got more than Rs. 1000 crores during this period. The State of Maharashtra alone received an amount of Rs. 3753 crores during 1989-90 accounting for 22.7 per cent of the total investment. Out of a total Central investment of Rs. 109595 crores made in last two decades, while Maharashtra's share was as much as Rs. 19813 crores, Kerala got only Rs. 1585 crores. The Central sector investment in the neighbouring states also increased noticeably during this period. The state-wise distribution of Central sector investment as on 31st March, 1989 and 1990 is furnished in Appendix 6.8.

6.46 Eighteen Central Sector industrial undertakings including five textile mills under the management of National Textile Corporation, were working in Kerala during 1990-91. They are:

- (1) Cochin Refineries Limited, Kochi.
- (2) Cochin Shipyard Limited, Kochi
- (3) Fertilisers and Chemicals Travancore Ltd., Aluva
- (4) Hindustan Newsprint Limited, Kottayam
- (5) Hindustan Latex Limited, Thiruvananthapuram
- (6) Indian Rare Earths Limited, Aluva and Chavara
- (7) Indian Telephone Industries Limited, Palakkad
- (8) Instrumentation Limited, Palakkad
- (9) Hindustan Insecticides Limited, Aluva

- (10) Modern Food Industries (India) Limited, Kochi
- (11) HMT Limited, Kalamassery
- (12) Balmer Lawrie and Company Ltd., Aroor
- (13) Hindustan Organic Chemicals Limited, Kochi.

Units under National Textile Corporation

- (14) Cannanore Spinning and Weaving Mills, Kannur
- (15) Vijayamohini Mills, Thiruvananthapuram
- (16) Parvathi Mills, Kollam
- (17) Kerala Lakshmi Mills, Thrissur
- (18) Alagappa Textile (Cochin) Mills, Thrissur

6.47 The salient features including the working results of the Central Sector manufacturing units in Kerala are given in Appendix tables 6.9 to 6.12.

Industrial Disputes

6.48 There were 38 industrial disputes in the State in 1990 as compared to 48 in 1989. The total number of workers involved in these disputes has also come down to 7061 in 1990 from 64,103 in the previous year. Similarly the total number of mandays lost due to strikes and lockouts has marked a substantial decline from 14.67 lakhs in 1989 to 3.92 lakhs in 1990. The details of industrial disputes occurred in the State during 1989 and 1990 are furnished in Table 6.7.

TABLE 6.7

Industrial Disputes Resulting in Work Stoppages in Selected Industries in Kerala

Industry	1989		1990			
	No. of Worker Disputes	Man-days affected lost (in '000)	No. of Workers Disputes	Man-days affected lost (in '000)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Plantation	5	26612	58	11	938	49
2. Textile	7	4530	280	6	1536	43
3. Coir	1	215	66	1	215	18
4. Saw Mill	2	57	10	..	..	..
5. Tiles	3	10128	434	3	373	33
6. Cashew	..	..	..	1	21	..
7. Others	30	22561	619	16	3978	249
Total	48	64103	1467	38	7061	392

Source: Department of Economics and Statistics, Thiruvananthapuram.

Small Scale Industries

6.49 During 1990-91, 8847 new Small Scale Industrial Units were registered in the State, against a target of 10,000 units, registering an increase of about 7 per cent over the previous year. The capital invested by these units amounted to Rs. 9802.45 lakhs. These units generated goods and services worth Rs. 29,891.05 lakhs and provided employment to an estimated number of 42881 persons during the year. Of the total number of 8847 Small Scale Industrial units registered during 1990-91, 584 units were by women entrepreneurs, 552 by Scheduled Castes and 57 by Scheduled Tribes. Ernakulam District accounted for the largest number of new SSI units registered during 1990-91, followed by Kottayam, Thiruvananthapuram and Thrissur. Kasaragod and Wayanad Districts accounted for the lowest number of new SSI units with only 115 and 116 respectively.

6.50 Total number of SSI units registered as on 31st March 1991 was 73,522, with a total investment of Rs. 73,279.98 lakhs and employment of 445,195 persons. Out of 73522 registered units, 6861 units remained closed during the year and 1527 units were sick. Sixty sick units were revived during the period.

6.51 During 1990-91, the Budgetted Plan Outlay for the SSI Sector was Rs. 1450.00 lakhs. Of this, the flow to SCP was Rs. 215.00 lakhs and to TSP Rs. 49.00 lakhs. Actual expenditure under SSI sector during 1990-91 was Rs. 1095.46 lakhs, including Rs. 174.67 lakhs under SCP and Rs. 35.22 lakhs under TSP. During the year 666 SC entrepreneurs were assisted under the loan scheme and 708 SC persons were benefited by the package of assistance scheme. 18 SC Industrial Co-operative Societies were assisted with grant and share participation. 54 worksheds were constructed for the benefit of the scheduled caste entrepreneurs. Under Tribal sub Plan 56 ST persons were assisted under the grant scheme and 67 S.T. persons under the loan scheme. 22 worksheds were constructed for the benefit of S.T. entrepreneurs during the year. Besides, 37 tribal industrial co-operative societies were provided with grant and share capital contribution.

6.52 During 1990-91, 715 prospective entrepreneurs were trained under the Entrepreneurship Development Programme. This included 190 persons belonging to scheduled castes and 26 belonging to scheduled tribes. 20 persons trained under the programme, started new SSI units. 5033 new artisans, 5007 in rural and 26 in urban areas, have started new artisans units during the year. Under self employment programme, an amount of Rs. 1506.06 lakhs was sanctioned to 7321 persons and Rs. 742.621 lakhs disbursed to 4185 persons during the year. As on 30-6-1991, there were 1449 industrial Co-operative Societies of which 67, were registered during 1990-91. Industrial co-operative societies promoted by SC and ST persons as on the above date were 149 and 35 respectively. District-wise details of SSI units are given in the Appendix tables 6.13 to 6.19.

Kerala Financial Corporation

6.53 The Kerala Financial Corporation is the main financial institution in the State providing loan assistance to industrial units especially those in the

small scale sector. The Corporation sanctioned an amount of Rs. 76.67 crores as loan to 2162 new industrial units as against Rs. 69.89 crores in the previous year, registering an increase of 9.7 per cent. The growth in the activities of the organisation for the last 5 years is given below.

TABLE 6.8

Amount of Loan Sanctioned, Disbursed and Recovered by KFC during the last 5 years.

(Rs. in crores)

Year	Gross Sanctions		Disbursements		Recovery	
	Target	Actuals	Target	Actuals	Target	Actuals
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1986-87	35.00	47.51	24.00	29.52	17.00	17.75
1987-88	50.00	40.53	40.00	33.97	23.00	17.60
1988-89	60.65	66.76	45.00	41.47	26.00	25.01
1989-90	65.00	69.88	50.00	56.36	33.00	37.25
1990-91	70.00	76.67	60.00	60.17	42.00	42.83

6.54 The disbursement during the year amounted to Rs. 60.17 crores, which shows an increase of 6.8 per cent over the previous year's amount of disbursement of Rs. 56.36 crores. Arrear collection also rose from 37.25 crores in 1989-90 to 42.83 crores in 1990-91. The major portion of the new loan sanctions was for the small scale industries sector, accounting for 59 per cent of the total sanctions. Transport, hospital and hotel services accounted for 21 per cent, 6.02 per cent and 6.49 per cent respectively. The Corporation sanctioned 168 projects involving Rs. 4.24 crores for rehabilitation of Ex-servicemen and 60 cases of loans to women entrepreneurs during the period.

6.55 Ernakulam District topped in the matter of sanctions and disbursements during the year with new sanctions for Rs. 12.14 crores and disbursement of Rs. 10.06 crores. However, Kollam and Kozhikode districts evinced better growth rates during the period.

6.56 After incurring losses for two consecutive years of 1987-88 and 1988-89, amounting to a total of Rs. 2.20 crores, the Corporation could turn the corner during 1989-90 by earning a profit of Rs. 0.73 crore. The Corporation could further increase the profit by a little over 20 per cent to Rs. 0.88 crore during 1990-91. The details of assistance sanctioned and disbursed by the Corporation till the end of March, 1991 are given in Appendix tables 6.20 to 6.22.

Kerala Small Industries Development Corporation (SIDCO)

6.57 Kerala Small Industries Development Corporation is engaged in promoting small scale industrial undertakings by providing them with credit, machinery and equipment on hire purchase basis and scarce raw materials. Revitalisation of sick units and rehabilitation of defunct units, construction and maintenance, management and administration of industrial estates and development plots etc. are also being attended to

by the Corporation. The total turnover of the Corporation during 1990-91 was Rs. 3044.64 lakhs as against Rs. 2437.00 lakhs in the previous year, registering an increase of about 25 per cent. The loss incurred by the Corporation in 1990-91 decreased to Rs. 47.31 lakhs from Rs. 137.66 lakhs in 1989-90. Details of the functional activities of SIDCO are mainly the following:

(i) *Raw Materials Division:* The Raw Materials Division of SIDCO procures and distributes scarce materials like iron, steel, paraffin wax, coke, coal, T 102, LDPE, LLDPE, PVC, PP Palm fatty acid etc. to the registered SSI units in the State through the raw materials depots in each district. The quantity of above items handled during 1990-91 was 21582 tonnes as against 18,176 tonnes in the previous year. The value of raw materials distributed during the year was Rs. 3325.00 lakhs which was about 40 per cent more than Rs. 2379.00 lakhs of the previous year. The number of units assisted in distributing scarce raw materials also increased from 2945 in the previous year to 3105 in the year under report. This division registered a turn over of about Rs. 26.00 crores during the year excluding the consignment agency sale of polymer products of IPCL amounting to Rs. 3.85 crores and earned a profit of Rs. 45.87 lakhs.

(ii) *Production Division:* Most of the 12 production units under the Corporation have been running on loss from the very inception. The main causes for the losses are lack of working capital, old and obsolete machines, limitations of SIDCO to compete with other SSI units in the fields of marketing the products etc. The turnover of this division during 1990-91 was Rs. 272.38 lakhs.

(iii) *Industrial Estate Division:* 17 conventional industrial estates and 36 mini industrial estates are managed by SIDCO. During 1990-91, all the 531 sheds in the conventional industrial estates were in occupation by 334 units. The number of SSI units working in the major estates has increased as at the end of the year to 299 from 235 units at the end of the previous year and the number of defunct, idling or closed units was 35 as against 44 at the end of the last year. Out of 393 sheds in mini industrial estates, 381 sheds were occupied by 308 units. Though there was slight decrease in number of units working in mini industrial estates from 273 in the previous year to 267 in 1990-91, the number of defunct/idling/closed units decreased to 41 during 1990-91 from 64 of the previous year. An amount of Rs. 6926 lakhs is outstanding as rent/HP instalment from the entrepreneurs of these units as on 31-3-1991.

(iv) *Planning and Development Division:* This division attends to rehabilitation of SSI units under the SIDCO-IRBI scheme and to recovery of the dues from the entrepreneurs who have availed themselves of margin money and rehabilitation loans. The amount collected as dues by this division during 1990-91 from the entrepreneurs was Rs. 10.88 lakhs. The amount outstanding as on 31-3-1991 was Rs. 179.02 lakhs.

(v) *Marketing Division:* During 1990-91 the Marketing Division received supply orders of materials worth Rs. 669.20 lakhs. Materials worth Rs. 256.30 lakhs were procured and delivered, as against Rs. 101.02 lakhs during the previous year registering an increase of 153.71 per cent.

(vi) *Construction Division:* The construction division of SIDCO carried out civil works costing Rs. 300.00 lakhs during 1990-91 as against Rs. 153.10 lakhs during the previous year and consequently the centage charges received also increased to Rs. 34.00 lakhs from Rs. 21.75 lakhs in the previous year. The important works taken by SIDCO include civil works of Khadi & Village Industries Board costing Rs. 50.00 lakhs, newly proposed sericulture project at Uduma and Elamadu costing Rs. 200.00 lakhs and the balance works costing Rs. 75.00 lakhs of Alleppey Co-operative Spinning Mills Limited.

Small Industries Service Institute

6.58. The Small Industries Service Institute provides technical and managerial services to existing as well as prospective small scale industries in Kerala and the Union Territory of Lakshadweep. The main office at Thrissur and the extension centres at Alappuzha, Shoranur and Kozhikode, undertake promotional and developmental activities. The Institute imparts training in machine shop practice, electric and gas welding, footwear and leather goods manufacture, fruit and vegetable preservation, wood seasoning, furniture design, jigs saw cutting, planing, planer blade grinding, general engineering, machine shop practices, design and fabrication of press tools, jigs and fixtures etc.

6.59. During 1990-91, the Institute executed a total number of 1408 jobs by providing common facility services benefiting 724 small scale units. The total revenue earned during the year by way of service charges, sale proceeds and consultancy charges was Rs. 3.40.320.

6.60. The Institute prepared/updated 25 project profiles, 6 technology transfer information documents and supplied a total number of 1165 technical schemes to prospective entrepreneurs. Six feasibility study reports on soaps, coffee powder, coconut shell powder, electronic, flow meters, hot froged nuts and bolts, and steel windows were also prepared. Besides technical literature on plant guide, vegetable pickles and special study status report on ice-cream were also brought out by this institution during the period.

6.61. Various technical divisions of the Institute provided consultancy services in a total number of 6337 cases, of which 600 were dealt with at the unit premises. Out of these 6337 cases, 3006 were purely of technical in nature, and 1792 of infrastructure facilities, financial availability, market potential and availability of various incentives and facilities. A

summary of the type of consultancy services provided by this institute is given below:

TABLE 6.9

Details of Consultancy Services offered by Small Industries Service Institute during 1990-91

Sl. No.	Type of Services	Location of Services			Total
		At unit premises	At SISI and ECS	Through Correspondence	
1.	Technical	442	1648	916	3006
2.	Managerial	10	22	1	33
3.	Economic & Statistical	..	517	192	709
4.	Others (Specify)	139	704	240	1083
5.	Assistance to start new Industries	9	1038	459	1506
Total		600	3929	1808	6337

6.62 Under the programme of modernisation, the Institute prepared a Modernisation Guide/Status Report on clay products and conducted two inplant studies for implementation. It conducted an Industry clinic-cum-seminar on plastic industry. Under the programme of Ancillary Development, the Institute conducted a "Buyers-Sellers Meet", involving a large number of small scale units engaged in printing industry. For promoting exports, the Institute compiled a Directory of Small Scale export units in Kerala, giving details of products exported, actual exports during 1987-88 to 1989-90 along with export destinations. The Economic and Statistical Division of the Institute also functions as a source of information on various policies and programmes relating to SSI registration, investment subsidy, sales tax exemption, margin money scheme, etc. The Institute conducted various training programmes for the prospective entrepreneurs and also for the development of technical and managerial skills. Details of training programmes and seminars conducted by the Institute during 1990-91 are given below:

TABLE 6.10

Details of Training Programmes conducted by the Small Industries Service Institute during 1990-91

Sl. No.	Name of Programme	No. of Courses	No. of Trainees		
			Total	Of which	
(1)	(2)	(3)	(4)	(5)	(6)
1.	Training courses in trades like food and vegetable preservation, Leather foot wear making, general Carpentry and furniture designing, machine shop practices, electric and gas welding	25	217	35	25

(1)	(2)	(3)	(4)	(5)	(6)
2.	Entrepreneurship Development Programme for educated unemployed (one month duration)	4	146	32	34
3.	Integrated Intensive Entrepreneurship Development and Modernisation Training Programme (6 weeks duration)	1	NA	NA	NA
4.	Management Development Courses (2 weeks duration)	3	87	7	29
5.	Energy Conservation Seminar (one week)	1	NA		NA
6.	Process-cum-product oriented Entrepreneurship Development Programme (4 weeks duration)	1	29	NA	NA
7.	Seminar on Marketing (one day)	1	100	NA	NA
8.	Workshop on treatment of Rubberwood and its use for furniture and Allied items (one day)	1	140	NA	NA

6.63. The Institute also renders assistance in quality testing of products. The Field Testing Station Chenganacherry caters to the testing and quality control needs of rubber products manufacturing units in Kerala and neighbouring states. The Test Laboratory attached to the Field Testing Station have the facilities to conduct various physical tests and chemical tests. During the year, this Station executed 84 job tests conducted 697 other tests and earned a revenue of Rs. 26,323. The station also guided 27 small scale units by testing their products through field visits as a measure of quality control and quality improvement.

6.64. The SISI has conducted indepth studies on working of twenty sick small scale units and prepared revival programme for rehabilitation. The Institute also rendered special assistance to women entrepreneurs and entrepreneurs belonging to weaker sections including Scheduled Castes and Schedule Tribes by conducting special training courses in the manufacture of leather foot wear, fruit and vegetable preservation, managerial training etc. Further, the Institute provided complete technical assistance for formulation of certain projects required by these people and arranged finance to set up industrial units.

Kerala Industrial and Technical Consultancy Organisation (KITCO)

6.65. Kerala Industrial and Technical Consultancy Organisation (KITCO) is a professional body established by the Industrial Development Bank of

India (IDBI), co-sponsored by national and state level financial institutions, Banks, and Government of Kerala for promoting growth of small, medium and large scale industries in Kerala. KITCO is having two branch offices, one at Trivandrum and the other at Malappuram. The activities of the organisation are preparation of project reports, appraisal reports, conduct of rehabilitation and diagnostic studies, energy audit, entrepreneurship development programmes, skill upgradation training programmes, monitoring of projects, modernisation of industries, detailed engineering services and other consultancy services.

6.66. During 1990-91 the Project Report Division of KITCO has completed 115 project reports involving a total investment of Rs. 5.44 crores as against 148 reports involving a total investment of Rs. 5.95 crores in the previous year. Three appraisal reports involving a total investment of Rs. 1.69 crores were completed and seven Rehabilitation and Diagnostic Studies were carried out during the year. KITCO has been monitoring the operation of KMML on behalf of IDBI Modernisation report on Cannanore Co-operative Spinning Mills Ltd. had been completed. Market studies of South India Market Survey on Large Size PVC pipes, Kerala Market Survey for Zinc Oxide Market Survey on spray plaster and textured coatings for M/s Travancore Cements Ltd., Kottayam, study on All India Market Survey for Nical Cadmium Batteries etc., have been started.

6.67. KITCO had also completed preliminary energy audits for 3 firms, special studies of NABARD, energy usage pattern in tile industries, technological evaluation norms on rubber based industries, tiny sector industrial units and ceramic industries. 21 entrepreneurship development programmes were conducted in which 496 entrepreneurs were trained during the period. Detailed Engineering Division of KITCO had involved in the construction management and site supervision for execution of projects of various firms like Hindustan Latex Ltd. Oil Palm (India) Ltd. Kerala State Co-operative Coir Marketing Federation Ltd. (GOIRFED), Pharmaceutical Corporation etc. during the year.

6.68. The turn over of KITCO during 1990-91 was Rs. 35.72 lakhs (unaudited), which shows a decline of 11.2 per cent over the previous year's turnover of Rs. 40.23 lakhs. The consultancy fees of the company also decreased from Rs. 38.09 lakhs in 1989-90 to Rs. 34.50 lakhs in 1990-91.

Handicrafts Industry

Handicrafts Development Corporation of Kerala Limited

6.69. The Handicrafts Development Corporation is engaged in the development of handicrafts industry in the State by marketing the products within the Country and abroad. For marketing of handicrafts items, the Corporation is maintaining 21 sales emporia, of which 10 are in the State and 11 outside Kerala. The Corporation has procured during 1990-91 raw materials worth Rs. 11.36 lakhs, consisting of sandalwood, rosewood etc., for distribution among artisans. This shows a decline of about 14 per cent compared to the procurement for Rs. 13.25 lakhs made during the previous year. There was also a sharp

decline in the distribution of raw materials to artisans by about 47 per cent from Rs. 12.14 lakhs in 1988-90 to Rs. 6.44 lakhs during 1990-91.

6.70. The Corporation is running a common facility service centre, raw material depot for distribution of raw materials and a procurement centre for collection of finished products. During the year, the Corporation has opened temporarily two show rooms, one at Kumily and another at Alleppey. It is proposed to open more showrooms at all important places. The Corporation initiated action to set up a raw material cum procurement depot at Calicut for the benefit of artisans in North Kerala. The Corporation has renovated its major showrooms at Kairali, New Delhi by installing a new A.C. plant and also airconditioned Kairali at Calicut. The existing two show rooms at Madras and the SMSM Institute at Thiruvananthapuram are proposed to be renovated during the year 1991-92. The Corporation has planned to increase its export sales. Steps have been initiated to get the integrated project for development of export of handicrafts, approved by Government of India so as to obtain financial assistance under UNDP.

6.71. The total sales value of handicrafts products effected through the Corporation during 1990-91 was Rs. 369.09 lakhs registering an increase of about 9 per cent over Rs. 338.59 lakhs in the previous year. There was a shortfall in the export of handicrafts goods by 9.5 per cent to Rs. 17.42 lakhs during 1990-91 from 19.24 lakhs in 1989-90. The Corporation has been earning marginal profits in the last few years, Rs. 0.31 lakh during 1987-88, Rs. 2.08 lakhs during 1988-89 and Rs. 1.50 lakhs during 1989-90. But the operations of the Corporation resulted in a heavy loss of Rs. 18.38 lakhs during 1990-91. The operating results of the Corporation for the last four years are given in Table 6.11.

TABLE 6.11

Financial performance of the Handicrafts Development Corporation of Kerala from 1987-88 to 1990-91

(Rs. in lakhs)

Sl. No.	Particulars	1987-88	1988-89	1989-90	1990-91 (Provisional)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Gross sales	244.92	282.21	338.59	369.09
2.	Net Profit before depreciation and financial charges	9.42	12.08	12.07	(—) 5.25
3.	Depreciation	2.18	2.12	2.34	3.20
4.	Profit after depreciation but before financial charges	7.24	9.96	9.73	(—) 8.45
5.	Financial charges	6.93	7.88	8.23	9.93
6.	Net Profit	0.31	2.08	1.50	(—) 18.38

Kerala Artisans Development Corporation

6.72. The Kerala Artisans Development Corporation provides a package of assistance to artisans engaged in the trades of carpentry, blacksmithy, goldsmithy, copper/bronzesmithy, masonry, pottery and shoe making for raising their standard of living. For attaining this goal, the Corporation is implementing three schemes viz. (i) primary production unit scheme, (ii) composite term loan scheme and (iii) registration scheme. During 1990-91, the Corporation, as a promoter, arranged an amount of Rs. 19.00 lakhs as composite term loan to 185 artisans, for starting tiny household units. About 1000 skilled artisans have been newly registered with the Corporation during the year under registration scheme. Artisans' Fairs (sales-cum-exhibition of artisans' products) were also conducted at Kannur, Ernakulam and Thiruvananthapuram during festival seasons. During 1990-91 the Corporation entered into commercial activities by supplying finished products of artisans to Public Sector Undertakings and Private Parties. A small show room was set up along with Regional Office at Ernakulam, to sell finished products of artisans, through which the Corporation sold goods for Rs. 0.95 lakh. The Corporation has also started to accept the service orders of repairs of furniture, interior decoration works, fabrication works, art work etc., from Government Companies, Agencies and also from Private Parties. By implementing the above schemes, the Corporation provided employment opportunities to 250 artisans.

6.73. During 1990-91, Corporation received a sum of Rs. 1.50 lakhs as share capital and Rs. 4.50 lakhs as loan from State Government. These funds were utilised mainly for meeting the establishment and other administrative charges and also as working capital to execute supplies and service orders. During 1990-91 the loss of the Corporation increased to Rs. 11.08 lakhs from Rs. 9 lakhs in the previous year. For most part of the year the Corporation functioned as a promotional agency. Its commercial activities started only towards the end of the year.

Bamboo Industry

6.74. Bamboo industry provides employment opportunities to about three lakhs of traditional workers mostly uneducated and unskilled rural women. Kerala State Bamboo Corporation was formed in 1971, for the consolidation and promotion of bamboo and reed based traditional cottage industries in the State and for the welfare of the workers engaged in them. The Corporation collects reeds from reserve forests by engaging traditional reed cutters and distributes to the weavers through 89 depots/subdepots of the Corporation and the finished products brought back by the weavers are procured at these depots. There are 15,000 weaver families, 2500 reed cutters and 1000 other workers, directly engaged in bamboo reed work under the Corporation. The Corporation produces 800 lakh square feet of bamboo mats per annum, which constitutes 80 per cent of the State's total production. Besides, Bamboo Corporation has set up a project for conversion of bamboo mats into different varieties of laminations and boards. The factory manufactured 87.00 square feet bamboo board (bambooply) during 1990-91.

6.75. As on 31-3-1991, the authorised share capital and paid up share capital of the Corporation were Rs. 300.00 lakhs and Rs. 254.88 lakhs respectively. The sales income of the Corporation was 471.00 lakhs and other income was 97.00 lakhs during 1990-91. Thus the total income of the Corporation during 1990-91 was Rs. 568.00 lakhs as against Rs. 431.75 lakhs during the previous year. The loss incurred by the Corporation during 1990-91 decreased to Rs. 5.00 lakhs from Rs. 7.14 lakhs in the previous year.

Beedi Industry

6.76. Beedi industry, pursued in the past primarily as self-employment enterprises by individual workers and small traders, has been developed as an organised industry in the northern districts of Kerala mainly because of the efforts made by the Kerala Dinesh Beedi Workers Central Co-operative Society. The Central society and its 22 primary societies together provide employment to 35,035 persons in Kasargod and Kannur districts and Badagara taluk of Kozhikode district. The Central society procures raw materials in bulk distributes to primary societies and markets the beedies made by the primaries under a single brand name.

6.77. All the Primary Co-operative Societies together produce nearly 2.00 crores of beedies worth Rs. 15.00 lakhs per day. The Central Society has remitted Rs. 308.88 lakhs as Central excise duty during the year 1990-91. The total amount paid as wages to workers during the year was Rs. 23.70 crores, which constituted 44.57 per cent of the total turn over of Rs. 53.18 crores. The incentives paid to workers include holiday wages, surrender leave salary, maternity leave with wages, gratuity, provident fund, bonus etc. A welfare cum-pension scheme to workers is also under operation as a social security to workers.

6.78. The paid up share capital of the Central society as on 31-3-1991 was Rs. 35.75 lakhs, consisting of Rs. 15.65 lakhs contributed by members and Rs. 20.10 lakhs by State Government. The society incurred an expenditure of Rs. 12.68 crores for purchase of raw materials during 1990-91. The primary societies produced a total number of 737.15 crores of beedies and sold to the Central society for Rs. 52.25 crores. The Central society sold the beedies for a total cost of Rs. 53.18 crores as against the sales turnover of Rs. 45.66 crores in the previous year. The total number of members in the Primary Co-operative Societies, as on 31-3-1991 was 50,051 and the total numbers of workers, including the employees, of the societies 35,035. The working of the society resulted in a profit of Rs. 32.17 lakhs during 1990-91 as against Rs. 38.92 lakhs during the previous year.

Khadi and Village Industries

6.79. Khadi and Village Industries Board has finance during the year Khadi Industry and 23 Village Industries coming under the purview of the Khadi and Village Industries Commission. Total disbursement amount to Rs. 32.62 lakhs as grant and Rs. 695.44 lakhs as loan. Total value of production in the Khadi and Village Industries sector increased from Rs. 6443.22 lakhs in 1989-90 to Rs. 7378.03 lakhs during 1990-91 and sales value from Rs.

6877.32 lakhs to Rs. 8290.80 lakhs. This shows an increase of 16.06 per cent in production and 20.55 per cent in sales during 1990-91. The total employment generated in the units assisted by the Kerala Khadi and Village Industries Board increased by 3711 from 189190 persons in 1989-90 to 192901 persons during 1990-91. A sum of Rs. 2879.40 lakhs was paid as wages during the year under report. A notable feature of khadi production in 1990-91 is that in spite of the fall in production by nearly 18 per cent in value, sales value of the items increased by 9 per cent by selling a substantial portion of the stock in hand. But on the Village Industries side both production and sales increased by 18 per cent and 21 per cent respectively during the year.

6.80 During the year 1990-91, the State Government released Rs. 280 lakhs to the Board to implement the programmes of the Board. This included an amount of Rs. 25.00 lakhs, under Special Component Plan, which helped 1250 scheduled caste families, to run various village industries units through 30 Co-operative Societies and 40 individuals. Similarly, Rs. 8 lakhs was provided under Tribal Sub Plan through 13 Co-operative Societies and 122 individuals during the year under review, which benefited 400 Scheduled Tribe families.

6.81 Besides the assisted units, the Board has been managing 362 industrial units departmentally for Khadi production and a few Village Industries Units engaged in Village Oil, Soap, Honey and hand-made paper etc. during the year. Wages of the spinners and weavers were raised by 15 per cent during the review year.

6.82 The Kerala Khadi Workers Welfare Fund Board has extended its activities throughout the State by enrolling artisans working in the aided Khadi Institutions and departmental centres as members. 10 persons are getting pension regularly from the fund.

6.83 A major sliver project, which can supply quality raw material to 8000 spinners, is nearing completion at Ettukudukka in Kasaragod district. Products of the Electronics Federation like radios, TV sets and two-in-ones etc. coming under the purview of the Board have already been released to the market through the outlets of KELTRON.

6.84 Details such as production, sales, employment and wages paid in various units under the jurisdiction of the Board are given in the Appendix 6.23.

Sericulture

6.85 Encouraged by the appreciable results of the pioneering effort made during 1986-87 in certain selected pockets of Idukki and Palakkad districts, farmers in different parts of the State have evinced great enthusiasm in Sericulture. Thus a climate has been created in the State for taking up sericulture on a large scale. The State Planning Board, realising the importance of the programme had constituted a Special Task Force in September 1989, to go into the various aspects of sericulture including the scope for extension of mulberry cultivation, rearing of silk worms, marketing of cocoons, employment potential,

administrative arrangements to be taken, technical and institutional infrastructure required and so on. Accordingly the Task Force recommended to take measures for mulberry farming in 28000 acres during the Five Year Plan 1990-95 taking all the 14 districts together and to establish silk worm rearing and related processes.

6.86 Government declared sericulture as a village industry during 1990-91 and since then Khadi and Village Industries Board has been implementing the programmes of sericulture development in the State. The State level committee on sericulture under the Chairmanship of the Minister for Industries and the District Level Committees under the Chairmanship of the concerned District Collectors monitor the progress of implementation of the programme.

6.87 In the light of the new industrial policy announced by the Government during September 1991 and the decision to launch Eighth Five Year Plan from 1992-93, a revised programme for development of sericulture during 1992-97 has been formulated with a target of extending sericulture in 50,000 acres within the five year period. The revised programme gives due emphasis for the creation of necessary technical and institutional infrastructure during the early years of the plan.

6.88 Under the Director of Sericulture about 150 technically trained persons are now in the field to provide technical and extension support to sericulturists. The State Departments of Agriculture, Rural Development and Irrigation are also involved in making available supplementary support to the programmes.

6.89 During 1990-91 an additional area of 4887 acres and in 1991-92, during the first nine months upto the end of December 1991, 5052 acres have been brought under mulberry cultivation. Number of farmers, who have started mulberry cultivation during the respective periods, was 6018 and 5451. Compared with the Seventh Plan period (excluding the year 1985-86) during which only 2700 acres were brought under mulberry cultivation, this is a remarkable achievement in the progress of implementation of sericultural programmes. In tune with the extent of mulberry cultivation, 60 tonnes of cocoon were produced and 1165 rearing units established during 1990-91. During the period from April 1991 to December 1991, 73 tonnes of cocoon have been produced while the number of rearing units set up stands at 1352.

6.90 The establishment of 540 sericulture co-operative societies during 1990-91 and additional 43 societies during 1991-92 (till December 1991), for providing to the farmers necessary infrastructure facilities like credit support, marketing facilities, price stability for the cocoon etc, is a major break-through within a short period of time. Other essential infrastructure facilities created during the period from 1990-91 to 1991-92 (till December 1991) are two silk worm seed production centres (one each in the private sector and central sector), eleven cocoon purchase centres, five silk reeling units (two each in the private sector and State sector and one in the Co-operative sector) and two State sector and one Central sector Demonstration-cum-Training Centres.

6.91 Considering the high employment potential and income that could be generated from sericulture, a budget provision of Rs. 350 lakhs under plan has been made in the current year's budget (1991-92). The following table gives the progress made under sericulture during 1990-91 and the first nine months of 1991-92.

TABLE 6.12
Progress of Sericulture in the State

Sl No.	Item	1990-91	1991-92 upto 31-12-1991	Remarks
(1)	(2)	(3)	(4)	(5)
1.	Mulberry cultivation (acres) (additional area)	4887	5052	
2.	Number of farmers	6018	5451	
3.	Number of rearing units	1165	1352	
4.	Production of cocoons (MT)	60	73	
5.	Silkworm seed production centres (No.)			
(a)	State Sector	..	..	Two centres planned
(b)	Private Sector	..	1	
(c)	Co-operative Sector	..	..
(d)	Central Sector	..	1	Under NSP Palakkad
	Total (5)	..	2	
6.	Cocoon Purchase Centres			
(a)	State Sector	..	7	
(b)	Co-operative Sector	..	1	
(c)	Private Sector	..	3	
	Total (6)	..	11	
7.	Silk Reeling Units			
(a)	State Sector	..	2	To be commissioned shortly
(b)	Co-operative Sector	1	..	
(c)	Private Sector	..	2	Cottage basins
	Total (7)	1	4	
8.	Demonstration cum Training Centres			
(a)	State Sector	1	1	For farming & rearing
(b)	Central Sector	..	1	For reeling
	Total (8)	1	2	
9.	Production of raw silk yarn	NA	NA	
10.	Sericulture Co-operative Societies Organised (Nos)			
	(Additional Societies)	540	48	

Coir Industry

6.92 According to the 1988 Coir Census, coir industry, the most important traditional industry in Kerala provides employment to 3.83 lakh persons, and the total coir dependent population is estimated at 11.08 lakhs. A distinguishing feature of the industry is that nearly 84 per cent of the workers are women and about 92 per cent of the workers are employed in the spinning sector alone, leaving only 8 per cent in the manufacturing side. The most discernible problem confronting the coir workers is lack of full employment in the sector. Consequently they are forced to search for some other activities to make both ends meet during major part of the year. 50 per cent of the coir workers are estimated as self employed in the industry.

6.93 The number of coir co-operative societies decreased to 822 as on 31-3-1991 from 844 on 31-3-1990. Of the 822 societies, only 479 (58 per cent) are working. The balance 42 per cent includes societies under liquidation (25 per cent), new societies which have not started working (10 per cent) and dormant ones (7 per cent). While the number of working societies increased from 451 to 479, that of new societies which have not started functioning decreased sharply from 128 to 78. In the meantime number of dormant societies marginally decreased and that of societies under liquidation slightly increased. This is a desirable trend in the path of strengthening the existing viable societies without giving unnecessary new registrations.

6.94 Categorywise, the existing 822 societies consist of 753 primary societies, 51 manufacturing societies, 8 small scale producer's societies and 9 husk procurement and distribution societies. Besides these, the Kerala State Co-operative Coir Marketing Federation (COIRFED) functions as the apex Co-operative Society which has 60 per cent affiliation from primary societies.

6.95 COIRFED undertakes marketing of coir and coir products manufactured in the co-operative sector. During 1990-91 the Federation procured 9584.80 tonnes of coir and coir products valued at Rs. 972.34 lakhs, sold 9301 tonnes worth Rs. 1178.26 lakhs in the domestic market and exported coir products for Rs. 1.61 lakhs. Procurement and sales turnover of COIRFED was better during the previous year the respective figures being 10705.30 tonnes valued at Rs. 997.64 lakhs and 12,574.50 tonnes valued at Rs. 1427.53 lakhs. Mechanised defibering unit, mechanised rubber backing unit and power operated rubberised coir mattress unit are the industrial units recently started by COIRFED.

6.96 The Kerala State Coir Corporation is mainly engaged in the marketing of coir products. It has also set up a few industrial units such as the Decorticated Fibre unit at Beypore which provides fibre to the rubberised coir mattress industry and the model coir factory with 92 looms manufacturing mats and mattings. The

Corporation has a wide network of show rooms all over India through which the domestic sales are effected. It functions as marketing outlet for numerous small scale manufacturers, especially as a relief measure under the distress purchase scheme to absorb the stock accumulations with them. Sales turn over of the Corporation during 1990-91 was Rs. 132 lakhs of which Rs. 8.60 lakhs were realised from export of coir products.

6.97 Latest estimates show that 85 per cent of the coir and coir products of the country is produced in Kerala. The production of coir yarn in the Co-operative sector during the year under report was 12,377 tonnes valued at Rs. 961 lakhs, which registers an increase of 11 per cent in quantity and 23 per cent in value over the previous year (1989-90). The manufacturing societies have shown commendable progress (59 per cent) in the manufacture of various coir products. It increased to Rs. 652.54 lakhs worth of coir products during 1990-91 from Rs. 410.18 lakhs in the previous year.

6.98 During 1990-91 the primary societies provided employment to 80,000 workers and the manufacturing societies, to 1898 persons. The corresponding figures in the previous year were 77000 and 2045 respectively. Co-operative arena accounts for only 20 per cent of the State's coir workers.

6.99 Export of coir and coir products has shown some improvement over the last couple of years. During 1990-91, 27,926 tonnes of such items were exported to various countries from India. Compared to the previous year there exists only a marginal increase of 1.70 per cent in quantity terms. However, the increase in export value in 1990-91 was 20 per cent as has been the case in the previous year. It has increased to Rs. 4832.85 lakhs during the year under report from Rs. 4017.77 lakhs in the previous year. Availability of synthetic products at cheaper rates and high freight charges are the main reasons for slow pace in export of coir and coir products.

6.100 Scarcity of coconut husks at reasonable prices to sustain the available work force throughout the year, dwindling domestic and external markets are still the major problems facing coir industry. With a view to controlling the price of husks and ensuring the availability of husks to the societies, the three point levy system has been introduced and the results are fruitful to a great extent. In order to boost the sale of coir products in the domestic market 20 per cent rebate was allowed during the year under review also.

6.101 The growing trend of mechanisation and the development of brown fibre industry in the mechanised sector in neighbouring states have posed serious threats to the future of coir industry in Kerala. As suggested from several corners, the need for selective mechanisation and modernisation of the industry is under the earnest consideration of the Government.

6.102 As advised by the Government, the State Planning Board had constituted a Special Task Force to look into the present problems facing coir industry and suggest remedial measures. The Task Force submitted its report in June 1990. The High Power Committee on Coir Industry, appointed by the Planning Commission, considered this report and accepted almost all the recommendations. The State Government have approved the report with slight modifications and have taken steps to implement the same with financial support from Central Government and NCDC.

6.103 Now-a-days the environmentalists have come up with the plea of water pollution in and around the backwaters in which raw husks are retted. This would also turn out to be a hurdle in front of the industry in the years to come and calls for research aimed at the development of alternative retting methods.

6.104 Detailed tables on Coir Co-operative Societies in Kerala, Activities of Coir Co-operative Societies and Export of Coir and Coir Products are given in the Appendix 6.24 to 6.26.

Handloom Industry

6.105 Handloom Weaving is a major traditional industry which provides employment and satisfies the clothing needs of the people to a great extent. The industry, which could make great strides till the end of fifties, has slid down in terms of production, marketing, employment etc. Shortage of raw material, high wage rates and stiff competition from the powerloom and mill sector etc. have constituted the major hurdles.

6.106 The estimated number of handlooms in the State during 1990-91 is 52,000. These comprise of 40591 co-operative sector looms, 6361 corporate sector ones and 5048 looms in the private sector. Number of looms in the organised sector has shown a marginal increase of 1 per cent during the review year.

6.107 The number of co-operative societies in the State during 1990-91 has increased slightly to 607 from 592 in 1989-90. Of the 607 societies, 130 were factory type and 477 cottage type. Employment in the co-operative sector is estimated at 1.5 lakh persons.

6.108 Production of handloom cloth which has been on the decline during the past few years, has further decreased marginally to 54.60 million metres during 1990-91 from 55.15 million metres in 1989-90. Productivity of handloom cloth was more or less stagnant around 1069 metres/loom. However, the value of production has increased to Rs. 81.87 crores in 1990-91 from Rs. 61.46 crores during 1989-90. Performance of the co-operative sector has been comparatively better as it has shown nearly 1 per cent increase in production during the review year. Nearly 80 per cent of the handloom cloth is produced in the co-operative sector.

6.109 In order to boost the sales of handloom products, the scheme for giving rebate on handloom cloth sold during festive seasons continued during 1990-91 also. An amount of Rs. 149.72 lakhs has been spent on this account. The new scheme "Market Development Assistance" continued during 1990-91 and Rs. 399.64 lakhs have been spent under this head. Value of unsold stock has come down to Rs. 15.53 crores during 1990-91 from Rs. 18.83 crores in 1989-90. The details regarding production, productivity, value of unsold stock etc., are furnished in Appendix 6.27.

6.110 The Kerala State Handloom Weavers Apex Co-operative Society (Hantex) was established in 1961 with the objective of developing handloom industry of the co-operative sector on commercial lines. Hantex has an authorised share capital of Rs. 10 crores and a paid up share capital of Rs. 5.23 crores including Rs. 1 crore of loan converted to equity. Total sales turn over of the society during 1990-91 was Rs. 11.15 crores and it has distributed yarn worth Rs. 3.00 crores during the period. The respective figures during 1989-90 were Rs. 10.34 crores and Rs. 2.48 crores. While the production of Janatha cloth worth Rs. 9.95 lakh registered a substantial increase of 87.70 per cent during 1990-91, the production of polyester shirting, double veshty, single veshty etc. decreased by 39.2 per cent during 1990-91, the production of which was worth Rs. 60.20 during 1989-90. The society has procured handloom cloth worth Rs. 8.96 crores in 1990-91 as against Rs. 8.65 crores procured during 1989-90.

6.111 The Hantex processing house at Balaramapuram with a processing capacity of 9000 metres of cloth and dyeing capacity of 800 kg. of yarn per day and the Hantex International Garments Unit were functioning well during 1990-91. Hantex has 246 showrooms within the State and 13 showrooms outside the State. Working results of the Hantex are given in Appendix 6.28.

6.112 The prime motto of Kerala State Handloom Development Corporation (Hanveev) is to function as an agency for the development of handlooms outside the co-operative sector. It has a paid up share capital of Rs. 388.03 lakhs as at the end of 1990-91. The Corporation has borrowed Rs. 507.58 lakhs during 1990-91 from the State Government. Production of handloom cloth under the jurisdiction of the Corporation was worth Rs. 221.95 lakhs, which is nearly 10 per cent less than that in the previous year (1989-90). Administrative expenses and the cost of raw materials were so high that the Corporation had to suffer a loss of Rs. 35.03 lakhs during 1990-91, thus stepping up its accumulated loss to Rs. 99.43 lakhs as at the end of 1990-91.

6.113 The Corporation markets its products through its own show rooms numbering 38 including 5 mobile sales vans and also through exclusive agency show rooms. The Kerala Garments Limited, a subsidiary company under the Corporation for ready-made handloom garments, was functioning well during 1990-91. Working results of the Corporation is given in Appendix 6.29.

6.114 The State Handloom Development Department implemented various schemes during 1990-91 with a view to uplift the living standards of

the weavers and simultaneously enhance the production and sales of handloom fabrics. As against a total budget provision of Rs. 1269.82 lakhs (Rs. 07.71 lakhs under plan and Rs. 662.11 lakhs under non-plan) an amount of Rs. 1202.71 (94.71 per cent) have been spent during the review year. Strengthening of Weavers Co-operative Societies, revitalisation of dormant societies, distribution of looms to loomless weavers, modernisation of looms, construction of house-cum-workshed to weavers etc. were some of the important schemes implemented during 1990-91. The major achievements involve revitalisation of 31 dormant societies spending Rs. 39.06 lakhs, share participation in 53 societies utilising Rs. 69.96 lakhs, purchase and distribution of looms to loomless weavers using Rs. 42.40 lakhs and the construction of 728 house-cum-worksheds at a cost of Rs. 38.45 lakhs. Project proposal for the establishment of one Handloom Design and Research Centre has been submitted to Government of India for approval. As a part of modernising the looms, 1598 looms were revamped at a cost of Rs. 39.95 lakhs. 350 Chitherenjan looms were distributed to various societies with a view to improving both productivity and quality.

6.115 An amount of Rs. 20 lakhs each was given to Hantex and Hanveev by way of share participation by Government. Another amount of Rs. 30 lakhs each was also distributed to the above organisation for their preloom and postloom processing centres.

6.116 Schemes exclusively benefiting Scheduled Castes and Scheduled Tribes were also taken up by the Department during 1990-91 with respective plan provision Rs. 29.90 lakhs and Rs. 18.95 lakhs. These schemes have enabled an estimated number of 390 SCs and 235 STs to cross the poverty line. 104 SC persons were given training under the various training programmes.

6.117 The exact figures for the export of handloom products of Kerala are not available. However, it is estimated that handloom products comprising of fabrics and madeups worth Rs. 9.19 crores were exported from Kerala during 1990-91.

6.118 Despite the various measures taken at different levels, handloom industry in Kerala is always facing problems like accumulation of unsold stock, scarcity of raw materials, increasing wage rates, competition from the mill sector etc. As a consequence accumulated loss of all the units in Co-operative and Corporate sectors are piling up and the situation has aggravated during the last couple of years. It is a well-established reality that 90 per cent of the handloom products are sold in the rebate season.

6.119 Details pertaining to production, productivity, number of Co-operative societies etc., in the Powerloom Industry are given in the Appendix 6.30.

Cashew Industry

6.120 Cashew industry is classified as a traditional industry mainly due to the low level of technology involvement in the processing of cashewnut. The contribution of labour in the value added by manufacture in this sector is about 60 to 65 per cent.

6.121 During October 1991 there were 252 cashew factories in Kerala, which could provide employment to nearly 1 lakh workers. Out of this, the Kerala State Cashew Workers Apex Industrial Co-operative Society Ltd. (CAPEX) and the Kerala State Cashew Development Corporation together own 80 factories (32 per cent). It is highlighted that cashew industry accounts for about 36 per cent of the total factory labourers in the State though the number of factories constitutes only 2.2 per cent.

6.122 The Kerala State Cashew Development Corporation has 70 factories under its control employing 50722 workers during 1990-91. During the previous year there were only 50367 workers. The Corporation has an installed capacity of 42,000 tonnes of cashew kernels, 6000 tonnes of cashew shell liquid and 900 tonnes of cashtan. During 1990-91, the production of cashew kernels decreased to 12422 tonnes valued at Rs. 8494.63 lakhs from 14200 tonnes valued at Rs. 13,215 lakhs during 1989-90. Total value of production in the cashew sector, including kernels, shell liquid and cashtan during the year was Rs. 8,522.27 lakhs.

6.123 Sales turnover of the Corporation increased to Rs. 111.37 crores during the reporting year from Rs. 102.78 crores in the previous year showing an increase of 8.36 per cent. Further, it aspires to have sales realisation to the tune of at least Rs. 122.50 crores during 1991-92. It is specially mentioned that 89 per cent of the sales directions of the corporation were to countries like USA, Canada and USSR, which adds up considerably to our foreign exchange reserves.

6.124 Owing to scarcity of raw material (raw cashewnut) the Corporation was unable to work its full capacity. As a result, it had to import 3450 tonnes of raw cashewnuts in addition to the quantity of 37962 tonnes consumed within the state value of both together being Rs. 5912.13 lakhs.

6.125 The Corporation received an amount of Rs. 100.00 lakhs as loan towards working capital from the State Government during 1990-91. While the loss of the Corporation during the year amounted to Rs. 102.16 lakhs, its accumulated loss stood at Rs. 4326.56 lakhs at the end of the review year. There was considerable reduction in the loss during 1990-91, compared to Rs. 626.81 lakhs in the previous year.

6.126 The main objective of Kerala State Cashew Workers' Apex Industrial Co-operative Society (CAPEX), which was registered during 1984, is organising cashew industry in the State on a commercial footing, rendering assistance to its affiliated societies in the procurement and distribution of raw nuts and making available funds for processing and marketing of kernels and other items produced in the factories of the affiliated societies. During 1990-91 CAPEX had 9 affiliated societies and one affiliated unit, which together were running 10 cashew factories, employing 6028 workers and 282 staff.

6.127 CAPEX has an authorised share capital of Rs. 2 crores made up of 20,000 shares of Rs. 1,000 each. The paid up capital as on 31-10-1991 was Rs. 88.42 lakhs in which the State Government's

contribution was Rs. 69.06 lakhs. Details of sales turnover of CAPEX for the last four years are given in the following table:

TABLE—6.13

Sales Turnover of CAPEX

(Rs. lakhs)

Sales	1987-88	1988-89	1989-90	1990-91
Export	597.57	748.18	966.71	1223.23
Domestic	27.43	36.10	64.22	20.42
Others	3.33	7.49	5.97	6.26
	628-33	791.77	1036.90	1249.91

6.128 Provisional working results of the Apex Society showed a net profit of Rs. 100 lakhs during 1990-91 as against Rs. 50 lakhs in the previous year. This is in fact a much improved performance when compared with the accumulated loss of Rs. 134.30 crores as on 30-6-1989.

6.129 CAPEX is the sole agent of Government for the monopoly procurement of raw-cashewnuts with the objective of ensuring fair price for the cashew-growers and equitable distribution of raw nuts among cashew processors. The programme was implemented during the review year also, availing itself of cash credit facility from the State Co-operative Bank in consortium with the District Co-operative Banks. CAPEX availed itself of Rs. 50 crores during both 1990 and 1991 from the Kerala State Co-operative Bank, paying Rs. 252.63 lakhs and Rs. 133.35 lakhs as interest to the Bank for implementation of the programme during the respective years.

6.130 CAPEX could procure only 58,437 tonnes of rawnuts valued at Rs. 86.55 crores during 1991 as against 82,673 tonnes valued at Rs. 103.36 crores during 1990. Actual procurement was being done through 5742 sub depots set up under 57 yards of 11 regions in 1991. The procured cashew was allotted to the factories under CAPEX, KSCDC and private sector. 49 per cent of the allotment was to private processors during 1991, while this was 44 per cent during the previous year. The district-wise procurement of rawnuts in 1990-91 and its inter district variation with respect to procurement and selling prices are given in Appendix 6.31.

6.131 As a step for encouraging monopoly procurement, payment of commission to the societies based on their performance, has been introduced recently. An amount of Rs. 143.07 lakhs during 1991 and Rs. 203.72 lakhs during 1990 were given as commission to the societies.

6.132 The net foreign exchange earnings from cashew export increased to Rs. 331.06 crores during 1990-91 from Rs. 290.43 crores in 1989-90, the percentage increase being 13.98. Exports of cashew kernels increased to 50,101 tonnes valued at Rs. 442.44 crores during 1990-91 from 44858 tonnes

valued at Rs. 360.34 crores during 1989-90, registering an increase of 11.68 per cent in quantity and 22.78 per cent in value over the previous year. The export of cashew shell liquid increased from 3014 tonnes valued at Rs. 2.53 crores in 1989-90 to 4420 tonnes valued at Rs. 3.15 crores during 1990-91. The higher growth rate achieved in the export of cashew shell liquid (46.65 per cent in quantity and 24.50 per cent in value) in comparison with cashew kernels implies that there is a growing need for the liquid in countries like Japan and Korea which are the main clients of Indian cashew. However, the unit value realised had been less at Rs. 7137 per tonne as against Rs. 8380 per tonne in the last year.

6.133 Import of raw cashewnuts substantially increased from 52474 tonnes valued at Rs. 72.44 crores during 1989-90 to 72506 tonnes valued at Rs. 114.53 crores during 1990-91. The increase works out to 38.18 per cent in quantity and 58.10 per cent in value. Here, unlike the exports, average unit price increased to Rs. 15,797 per tonne during the review year from Rs. 13,805 per tonne in 1989-90.

6.134 The Cashew Export Promotion Council of India at Cochin is the Agency set up by Government for quality control and perishment inspection of cashew nuts exported. It also functions as an advisory body to develop innovative methods of cashew cultivation with a view to reducing import of raw cashewnuts. Its main function is to advise Government on policy matters aimed at boosting cashew exports. Details showing export and import of cashew products during the period from 1976-77 to 1990-91 are given in the Appendix tables 6.32 and 6.33.

Mining

6.135 The Department of Mining and Geology carried out its developmental as well as regulatory functions during the financial year 1990-91 satisfactorily. With regard to major minerals, the Department granted six mining leases, one each for china clay and limeshell and four in respect of silica sand, during this period. Altogether there were 68 mining leases in force in the State as on 31-3-1991. Out of these, 21 leases were issued for the mining of silica sand in Alappuzha district. Seventeen mining leases were for china clay and 15 for limeshell. In the case of minor minerals, there were 67 quarrying leases and 52 quarrying permits in force during 1990-91. Out of 67 quarrying leases in force as on 31-3-1991, 62 were for graphite stones. Of these, 17 were in Palakkad district. Among the 52 quarrying permits, 32 were issued for granite

stones. Of these, 22 were issued in Thiruvananthapuram district. Ten quarrying permits for seashell were in force in Kozhikode district. Besides 115 dealers' licences were in force in the State as on 31-3-1991. Out of these, 45 were in Ernakulam district and 23 in Alappuzha district. The Department continued to take rigorous measures for checking illicit mining and transport of valuable mineral resources of the State. The Department collected a total revenue of Rs. 107.91 lakhs during 1990-91. The details of revenue collected during the period from 1985-86 to 1990-91 are shown in Appendix 6.34.

6.136 During 1990-91, the Kerala Mineral exploration and Development Project (KMEDP), now functioning under the Department of Mining and Geology, undertook a detailed investigation for bauxite in Nileswar area in Kasaragod district for proving additional reserves for establishing a commercially viable alumina/aluminium plant in the State. This investigation proved an estimated reserve of 22.5 million tonnes of metallurgical grade bauxite in this area. The Project has forwarded bulk samples to the Indian Bureau of Mines for bench scale ore beneficiation studies. A detailed investigation for clays in Cheruthazham area of Kannur district was taken up in association with the Department of Mining and Geology. This study has proved clay deposit of four million tonnes over an area of 10 ha. in this location. The preliminary survey for identifying and delineating kaolinitic clay deposits in Thiruvananthapuram district has enabled the Project to locate an area of 300 ha. in Melthonnakkal and Veilur Villages having an inferred reserve of 40 million tonnes of kaolinitic clay. Exploratory drilling has been taken up in an area of 60 ha. in Melthonnakkal village. Besides, an area of 22 ha was covered by topographic survey.

6.137 Other major investigations conducted by the Project during 1990-91 include those for graphite in Ernakulam district. The representative samples of graphite collected at the time of investigation at Vadakode in Ernakulam district has been forwarded for beneficiation studies. A survey for locating granite of varying colours which may conform to the grade of decorative/dimension stones was carried out in Thiruvananthapuram district. During 1990-91, the Minerology and Gem Testing Laboratory working under the Project has completed a number of works including cutting and polishing of rock samples collected from various parts of the State, electromagnetic separation and identification of silica sand samples collected from Cherthala and identification of mineral samples collected from river gravels in Kulathupuzha area.

CHAPTER 7

TRANSPORT AND COMMUNICATIONS

Kerala is the only State in the Country where all the villages are connected by all-weather roads. Though the State is in a better position compared with other States in India, considering the settlement pattern and average area of a revenue village, the State has to achieve more in the case of road net work. The average area of a revenue village in Kerala is 30.7 sq. km. as against 5.7 sq. km. for the country as a whole. Moreover while the number of vehicles has increased at a galloping rate during the last decade, the increase in the length of road is at a considerably slow pace. The faster growth of vehicles at 23.3% per annum would definitely create traffic problems in the coming years as the corresponding growth of road net work is only at the rate of 3.6%. The Share of surfaced road length is only 21.6% of the total road length, which shows that nearly 80% of the roads in Kerala are substandard.

7.2 During the year under review, the total length of roads increased by 2770 kms from 125,633 kms on 31-3-1990 to 128,403 kms on 31-3-1991. The surfaced road length stood at 26,783 kms in the year 1990-91. In terms of coverage, Kerala has a road length of 330 kms per hundred sq. kms of area and 443 kms per lakh of population (1991 Census—Provisional Population). In respect of registration of motor vehicles, the State witnessed an increase by 66,688 numbers. The total number of vehicles registered in the State stood at 647,742 during 1990-91 as against 581,054 numbers in 1989-90. It shows that there are 1,667 vehicles per hundred sq. kms of area and 2,234 vehicles per lakh of population. (1991 Census—Provisional population) The passenger transport operations in the State are carried out both by the public sector and private sector; of which private sector occupies a better position. The Kerala State Road Transport Corporation is the only public sector road transport undertaking which operates transport services throughout the State. The Corporation owns 3,413 buses which accounts for 22 per cent of the total stage carriages in the State. The private agencies dominate in the case of goods transport operations.

7.3 The Railway route length in the State stood at 998 kms. It consisted of 885 kms broadgauge and 113 kms metregauge. In the case of railway route length, Kerala is one among the lowest in the country. The air traffic in the State is undertaken by the Trivandrum, Cochin and Calicut Airports. There were direct flights from Trivandrum to Gulf countries, Male and Colombo during the year under review.

7.4 The total freight traffic originating and terminating from the Airports in the State showed a downward trend of 10.43 per cent and 19.40 per cent respectively during the review year. Information regarding the Airtraffic is given in Appendix 7.16.

7.5 The passport authorities in the State issued 2.39 lakh passports in 1990-91 as against 3.17 lakhs in 1989-90 which showed a decline of 25 per cent. The Appendix 7.17 reveals the number of passports issued in the State during the year under review.

7.6 The only major port in Kerala is at Kochi. The three intermediate ports are at Neendakara, Alappuzha and Kozhikkode. Vizhinjam, Thiruvananthapuram, Kollam, Kodungalloor, Vadakara, Ponnani, Thalassery, Kannoor, Azheekkal and Kasaragod ports are the ten minor ports. The Cochin Port recorded an increase of 2.1% in cargo transport during 1990-91 compared with the previous year. A quantity of 72.75 lakh tonnes of cargo was handled at this port during the year.

7.7 Landing and shipping operations took place only at the four ports Kovalam-Vizhinjam, Neendakara, Azheekkal and Kozhikkode.

7.8 The total quantity of cargo handled at the Intermediate and Minor ports decelerated at the rate of 17.6%. During 1989-90, 1.58 lakh tonnes of cargo was handled at the 13 ports. This has come down to 1.30 lakh tonnes during the reporting year. foodgrain imports accounting for the shortfall.

7.9 The dredging works were done at the three ports—Neendakara, Beypore and Ponnani. Private dredging was also conducted for the two private agencies of Cochin shipyard and Vizhinjam wave energy project.

7.10 Hydrographic surveys were conducted at the ports of Vizhinjam, Neendakara, Munambam, Ponnani, Beypore, Azheekkal, Mopla Bay and Kasaragod. Construction of the wharf at Neendakara was completed during the year under review.

7.11 Kerala is blessed with its ideal waterways. Kerala State Water Transport Department, Kerala shipping and Inland Navigation Corporation Ltd. and Water Transport Wing of KSRTC are the three Government agencies engaged in Water Transport Operations in Kerala.

7.12 The number of passengers carried by the three agencies showed an increase of 2%. Cargo handled by the three agencies was only 0.03 lakh tonnes during the year 1990-91.

7.13 An amount of Rs. 263.76 lakhs was collected through water transport operations by the three agencies together as against the revenue expenditure of Rs. 477.12 lakhs, which resulted in a net loss of Rs. 213.36 lakhs.

7.14 Kerala Postal Circle consists of 24 Postal Services Divisions and 3 Other Postal Services Divisions. During the year under review, a new Postal Division viz., Lekshadweep has been introduced. In 1989-90 there were only 23 Postal Divisions. Under the 24 Divisions, 4905 post offices are working, of which 4 post offices are at Mahe and 10 Post Offices are at Lekshadweep. Another 89 Offices come under the 3 Other Postal Divisions. Excluding the 14 post offices in Mahe and Lekshadweep, only 4891 post offices under Postal Services Divisions and 89 offices under Other Postal Divisions functioning in Kerala.

7.15 The Other Postal Services Divisions are Railway Mail Service Division, Mail Motor Service Division and Central Stamp Depot. Speed Post service was extended to two more centres viz. Trichur and Kozhikode during the year 1990-91. On an average one post office served 5932 persons and 7.946 sq. kms of area during 1990-91.

7.16 Kerala Telecom Circle comprises of 10 Secondary Switching Areas (SSAs) with 649 exchanges at the end of the financial year 1990-91. But the number of exchanges has increased to 657 at the end of the year 1991. As on 31st March 1991, there were 260261 working connections under the Telecom Circle with a total equipped capacity of 281607 connections. The number of working connections has gone upto 2,76,973 at the end of 1991 with an equipped capacity of 309490 connections.

7.17 The overall picture of the growth of Transport and Communications Infrastructure for the period 1975 to 1991 is given in Table 7.1.

TABLE 7.1
Growth of Transport & Communications Infrastructure since 1975

Sl.No.	Item	Unit	1975	1980	1985	1986	1987	1988	1989	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Road Length (P.W.D.)	Kms.	14870	17408	19107	19460	19752	19808	19815	19836	20283
2.	Road Length (Panchayats)	"	54812	66158	81515	81539	82913	90301	94487	96951	99022
3.	Motor Vehicles	Nos.	119720	174704	319259	361617	414310	473789	523343	581054	647742
4.	Passenger Buses	"	7828	8705	12910	13497	16704	18121	19034	20290	21454
5.	Goods Vehicles	"	15875	211215	40879	45325	51284	57388	58528	61106	66190
6.	Buses under K.S.R.T.C.	"	2212	2935	3239	3070	3019	3219	3240	3313	3413
7.	Railway Route Length										
(a)	Broad gauge	Kms.	774	803	828	828	828	828	828	885	885
(b)	Metre gauge	"	122	113	113	113	113	113	113	113	113
	Sub-Total	"	896	916	941	941	941	941	941	998	998
8.	Minor Ports	Nos.	10	11	9	9	10	10	10	10	10
9.	Intermediate Ports	"	2	3	4	4	3	3	3	3	3
10.	Traffic through Minor & Intermediate Ports										
(a)	Export	Lakh tonnes	17.30	1.87	1.49	0.99	0.75	0.74	1.29	1.18	1.20
(b)	Import	"	1.28	0.76	0.26	0.12	0.15	0.09	1.74	0.40	0.11
11.	Traffic through Kochi Port										
(a)	Export	"	12.82	11.10	3.90	7.19	12.83	12.17	12.83	10.72	10.25
(b)	Import	"	35.90	43.60	36.76	45.59	56.00	55.85	65.41	60.53	62.50
12.	Length of Navigable Waterways	Kms.	NA.	1895	1895	1895	1895	1895	1895	1895	1895
13.	Passenger Boats in Public Sector										
(a)	State Water Transport Department (SWTD)	Nos.	..	..	74	75	75	75	79	86	88
(b)	Kerala Shipping & Inland Navigation Corporation (KSINC)	"	..	..	8	8	8	9	9	9	11
(c)	Kerala State Road Transport Corporation—Water Transport Wing	"	..	..	12	12	12	12	12	12	12
14.	Post Offices	"	4024	4512	4751	4748	4748	4782	4782	4861	4910
15.	Telephone Exchanges	"	286	441	561	584	608	621	632	636	649
16.	Total Equipped Capacity	"	70410	104595	144462	162721	178821	195852	224377	246190	281607
17.	Public Call Offices	"	2352	2292	2766	2858	2944	2938	3107	3794	4958

Roads

7.18 The State has an aggregate road length of 128,403 kms at the end of the year 1990-91. This total road length comprises 20,283 kms Public Works Department roads, 1,011 kms National Highways, 99,022 kms Panchayat roads and 8,087 kms other roads maintained by Municipalities, Corporations, Forest departments and Electricity Board. But the total length of black-topped/metalled roads comes only 29,076 kms during the year under review. A comparative study on the length of roads as on 31-3-1990 and on 31-3-1991 and the percentage of road length under each department is given in Table 7.2.

* Provisional

7.19 The length of three National Highways viz. N.H. 47 N.H. 17 and N.H. 49 in Kerala are 423 kms, 419 kms, and 168 kms respectively. The increase in road length under Public Works Department during the year under review stood at 447 kms, where as the Panchayat roads increased by 2071 kms, the length of roads under other categories had shown an increase of 178 kms.

7.20 In the case of Public Works Department roads about 86 per cent are black-topped/cement concrete. The distribution of Public Works Department roads by type of surface is given in the Table 7.3.

TABLE 7.2

Length of Road in Kerala Under Different Department as on 31st March 1990 and 1991

Sl. No.	Name of Department	(kms)		
		As on 31-3-1990 Road Length	As on 31-3-1991 Road Length	Per-centage
(1)	(2)	(3)	(4)	(5)
1.	National Highways	1011	1011	0.79
2.	Public Works Department	19836	20283	15.79
3.	Panchayats	96951	99022	77.12
4.	Municipalities (including Corporations)	5049	5227*	4.07
5.	Forests	2590	2654	2.07
6.	Others	196	206*	0.16
Total		125633	128403	100

TABLE 7.3

Distribution of Public Works Department Roads by Type of Surface as on 1-3-1991

Sl. No.	Category	(Kms.)				
		Cement Concrete	Black topped	Water Bound Mecedam	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	State Highways	16.612	1857.969	8.350	7.405	1890.336
2.	Major District Roads	8.263	5896.230	54.464	12.971	5971.928
3.	Other District Roads	..	9215.020	258.002	461.059	9934.081
4.	Village Roads	..	422.151	252.845	1812.086	2487.082
Total		24.875	17391.370	573.661	2293.521	20283.427

7.21 The Department undertook 75 village roads with a total length of 393 kms in the year 1990-91. The district-wise length of roads taken over by the Department during the year under review is presented in Appendix 7.1.

7.22 The Public Works Department in the State has fifteen divisions and they are mainly undertaking the road development activities in the State. Kottayam division with 2001 kms of road comes at the top when compared to the other divisions, and about 94 percent of it is black-topped/cement concrete. The lowest figure of 627 kms is in Wayanad. Distribution of roads under Public Works Department is depicted in Appendix 7.3.

37/851/MC.

7.23 The total length of Panchayat roads increased by 2,071 kms from 96,951 kms during 1989-90 to 99,022 kms during 1990-91. The percentage of black-topped/metalled roads under this category is 8.90 as against 8.30 per cent in the previous year. The corresponding percentages of gravelled and earthen roads were 28.59 per cent and 62.53 per cent respectively in the review year. The Kollam District ranks first in the length of roads (13,342 kms) under Panchayats followed by Thrissur (11,285 kms) during the year 1990-91. Wayanadu district has the lowest length of roads (2840 kms) among the districts in Kerala. The district-wise length of roads according to type of surface is shown in Appendix 7.5.

Road Accidents

7.24 The road accidents in the State had gone up to 20,900 numbers in the year under review from 17,729 numbers in the preceding year. During the year 1990-91 the number of injured persons was 27,972 which showed an increase of 8.60 per cent. However the number of fatal cases had come down from 1,814 in 1989-90 to 1,717 in 1990-91. It is observed that about 94 per cent of the accidents are due to the fault of drivers. The Appendices 7.6 to 7.9 show the District wise details of the number of road accidents, primary cause of accidents, road accidents to the class of vehicle involved, and accidents by time of day.

Road Transport

7.25 The private sector and public sector transport systems together provide adequate transport services in the State. But the private sector dominates in passenger transport as well as goods transport operations. The Kerala State Road Transport Corporation is the only public sector agency which operates passenger services in the State. The goods transport by road is more or less the monopoly of the Private sector.

7.26 The total number of motor vehicles having valid registration in the State during the year under review stood at 6.48 lakhs as against 5.81 lakhs in 1989-90, the increase being 11.48 per cent. Appendix 7.10 shows the growth of motor vehicles in Kerala from 1975 onwards. When compared to other States of India, the density of motor vehicles in Kerala is very high. During the year under review, Kerala has 2,231 vehicles per lakh of population (1991 Census) and 1,667 vehicles per hundred sq.km. of area. The corresponding All India figures were only 1977 and 508.

7.27 About 45% of the vehicles are scooters/motor cycles and the growth of those vehicles (16%) is higher than that of other vehicles. The passenger buses and goods vehicles together comes to only 13% of the total number of vehicles. This shows that the personal transport modes account for 87% of the total motor vehicles in the State during the year under review. A district-wise ranking of the number of valid registration of motor vehicles in the State reveals that Ernakulam district stands first followed by Thiruvananthapuram district, while Wayanad district comes last.

7.28 An analysis of the trend in registration of new vehicles in the State shows an increase of 10.92% during 1990-91. The total number of vehicles newly registered during 1990-91 was 64,326 as against 57,992 in the previous year. Appendix 7.13 presents the category-wise details of newly registered vehicles in the State. In the case of new registration of vehicles Ernakulam district ranked first (12,617 nos.) followed by Thiruvananthapuram (9,682 nos.), Wayanad had the lowest rank (620 nos.)

7.29 The Regional Transport Authorities issued 5,223 temporary and 718 permanent stage carriage permits during 1990-91. Under National Permits scheme, no permits were issued in the year under review. The details regarding permits issued under various categories are shown Table 7.4.

TABLE 7.4

Details regarding the issue of Permits and National Permits granted under National Permit's Scheme

(1)	(2)
1990-91	
1. Permits granted under:—	
(i) existing inter-state operators	(Nos) 2430
(ii) existing intra-state operators	(,,) NA
(iii) ex-army personnel	(,,) Nil
(iv) unemployed drivers	(,,) Nil
(v) Scheduled Caste/Scheduled Tribes	(,,) Nil
Total	(,,) 2430
2. State Quota on National Permits (end of March 1991)	No Quota
3. Number of goods vehicles having inter state permits (not included under National Permits' Scheme):	
(i) vehicles registered in Kerala having permit to operate in other states	3900
(ii) vehicles registered in other states having permit to operate in Kerala	3900
Total	7800
4. Number of Stage carriage permits issued by R.T. As.	
(a) temporary	5223
(b) pucca	718
Total	5941

7.30. The revenue collected by way of taxes and other items under the Motor Vehicles Act and Rules accounted for Rs. 74.14 crores during 1990-91 as against Rs. 69.91 crores in 1989-90; ie. an upward trend of 6.05 per cent. The cumulative tax arrears from the private sector under the motor vehicles act at the end of March 1990-91 stood at Rs. 4.96 crores which is comparatively higher than that of the previous years' figure of Rs. 4.53 crores. K.S.R.T.C. had to remit Rs. 61.40 crores as tax arrears in 1990-91 as against Rs. 14.45 crores in 1989-90.

Passenger Transport

7.31. The passenger transport services in the State are carried out both by the Public Sector and Private Sector. The share of public sector transport services is only 22% which is very low when compared to the percentage of public sector transport services in the neighbouring State of Tamil Nadu (40%), Karnataka (41%) and Andhra Pradesh (48%). The district-wise distribution of stage carriages in the State,

both in the public sector and private sector are given in Table 7.5.

TABLE 7.5

District-wise Distribution of Stage Carriages in the State

Sl. No.	Name of 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)	(6)
1.	Thiruvananthapuram	13	1193	239	1432
2.	Kollam	4	275	733	1008
3.	Pathanamthitta	3	156	381	537
4.	Idukki	1	33	361	394
5.	Alappuzha	6	330	534	864
6.	Kottayam	6	288	951	1239
7.	Ernakulam	6	310	1590	1900
8.	Thrissur	5	189	1787	1976
9.	Palakkad	1	99	883	982
10.	Malappuram	3	91	904	995
11.	Kozhikode	2	118	1239	1357
12.	Wayanad	3	159	96	255
13.	Kannur	2	129	1361	1490
14.	Kasaragod	1	43	327	370
Total		56	3413	11386	14799

*Inclusive Vehicles held in various workshops of KSRTC also.

Kerala State Road Transport Corporation (KSRTC)

7.32. The Kerala State Road Transport Corporation is the only agency in the public sector for passenger transport by road in the State. The Corporation had a fleet strength of 3,413 vehicles during the year under review as against 3,313 vehicles during the preceding year. The Corporation added 325 new buses and disposed of 225 buses in 1990-91, as against 280 and 207 in the previous year. The number of schedules operated by the Corporation during 1990-91 stood at 3,052 as against 2,948 in the previous year, that is an increase of 3.5 per cent. The Corporation runs its fleet in 3,894 routes with a route distance of 1.74 lakh kms. during 1990-91. The corresponding figures for the previous year were 3,878 and 1.74 lakhs. The total number of passengers carried stood at 8,535 lakhs in the year under review as against 8,406 in the preceding year. Though an increase of 1.53% was noticed in the case of total passengers carried, the average number of passengers travelled in a bus was less during the year under review. The number of student passengers travelled accounted for 668 lakhs which is 7.83 per cent of the total number of passengers travelled. During the year under review, an increase of 12 per cent is observed in the number of student passengers.

7.33. The gross revenue receipt of the Corporation stood at Rs. 172.32 crores during 1990-91 as against Rs. 158.32 crores during the preceding year, registering an upward trend. Table 7.6 shows the present fare-structure of KSRTC.

TABLE 7.6

Fare Structure of K.S.R.T.C. as on 31-12-1991.

Sl. No.	Type of Service	Basic fare per km. (Paise)	Minimum fare (Paise)
(1)	(2)	(3)	(4)
1.	City	13	70
2.	Ordinary	13	70
3.	Fast Passenger	16	150
4.	Express	18	400
5.	Delux Express	20	500

The average earning per passenger stood at 196.9 paise during the year under review as against 181 paise in the preceding year, which shows an increase of 8.78 per cent. The average earnings per km. of buses operated went up to 617 paise during 1990-91 from 547 paise during 1989-90, registering an increase of 12.80 per cent.

7.34. The gross revenue expenditure of the Corporation during the year 1990-91 was Rs. 203.33 crores against Rs. 182.04 crores during 1989-90, which showed an increase of 11.70 per cent. The excess revenue expenditure incurred during the year under review was Rs. 21.29 crores while the gain in the revenue receipts was only Rs. 14 crores. Major share of the expenditure went for meeting the salary of staff. The total expenditure on this account stood at Rs. 94.09 crores (46.28%) The expenditure for repairs and maintenance accounted for Rs. 23.64 crores (11.63 per cent) while Rs. 40.30 crores (19.82%) were spent for fuel and Rs. 45.30 crores (22.28 per cent) for other expenditure.

7.35. From 1967-68 onwards, KSRTC has been running at a loss. A total sum of Rs. 65 crores was written off by State Government during the years 1980-81, 1983-84 and 1985-86. Excluding this amount, the accumulated loss of the KSRTC at the end of 1990-91 stood at Rs. 193.76 crores. The loss of the Corporation during 1990-91 stood at Rs. 31.01 crores as against Rs. 23.72 crores in the previous year. During the year under review the loss is higher than that in the previous years. This was due to the pension payments, pay revision etc. of the employees of the KSRTC.

7.36. Up to the end of the year 1990-91, the share capital contribution by the Government of Kerala and Government of India together was Rs. 68.62 crores. At the end of 1990-91, the loan to be repaid by the Corporation to Government of Kerala, LIC and IDBI stood at Rs. 95.57 crores.

7.37. The efficiency and productivity of a transport Corporation mainly would depend on the age and effective utilisation of its fleet and staff productivity. As on 31-12-1991, as high as 46.57 per cent of the fleet

of KSRTC was overaged. When compared with the other Transport Corporations in the country this is very high. The age-wise classification of vehicles owned by the Corporation is presented in Table 7.7.

TABLE 7.7

*Age-wise Details of Vehicles Owned by KSRTC
as on 31-12-1991*

Sl. No.	Age-wise classification	Numbers
(1)	(2)	(3)
1.	10 years and above	788
2.	Above 7 years and below 10 years	866
3.	Above 5 years but below 7 years	301
4.	Below 5 years	1597
	Total :	3552

As in the case of previous years, during the year under review also the main reasons for the loss of the Corporation are low fleet utilisation, high percentage of overaged buses, frequent accidents and break-downs and frequent cancellation of schedules. It is estimated that the fleet utilisation of KSRTC during 1990-91 was 80.90 per cent against the All India average 85.50 per cent. The staff productivity of KSRTC per day is 25.10 kms. in 1990-91 whereas the All India average stood at 32.50 kms. (in 1986-87 figure).

7.38. The bus-staff-ratio stood more or less the same during the year under review as compared with the previous year. The number of staff per bus was 8.97 which showed only a marginal increase of 0.01 during the year 1990-91. This ratio is however much less in the other Road Transport Corporations like Andhra Pradesh, Tamil Nadu, Karnataka etc. Table 7.8 presented below shows the category-wise staff strength of the Corporation.

TABLE 7.8

Category-wise Staff Position of KSRTC

Sl. No.	Category	At the end of March 1990	At the end of March 1991	At the end of December 1991
(1)	(2)	(3)	(4)	(5)
1.	Administrative Staff including watch and ward	4676	4708	46108
2.	Traffic Personnel	18259	19102	19269
3.	Maintenance Personnel	6745	6820	6894
	Total	29680*	30630*	30781*

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

Goods Transport

7.39 The goods transport services by road in the State is the monopoly of the private sector. The number of goods vehicles in the State increased from 61,106 in 1989-90 to 66,196 in 1990-91, registering an increase of 8.32 per cent. The Table 7.9 shows the growth of goods vehicles in the State since 1966.

TABLE 7.9

Growth of goods Vehicles in Kerala since 1966

Year	No. of goods vehicles	Index
(1)	(2)	(3)
1966	8848	100
1975	15875	179
1980	20128	227
1981	22896	259
1982	25696	290
1983	29153	329
1984	30966	350
1985	36699	415
1986	45325	512
1987	51284	579
1988	57388	648
1989	58528	661
1990	61106	691
1991	66190	748

Railways

7.40 The rail routes in Kerala are maintained by the three major Railway Divisions, viz Thiruvananthapuram Palakkad and Madurai. The total route length of 988 kms. comprises of 885 kms broad-gauge and 113 kms metre-gauge. The Thiruvananthapuram Division, started no new train services during the year 1991.

7.41 The Kayamkulam-Alappuzha route, is expected to be commissioned within two or three months. The estimated cost of Thirissur-Guruvayoor line comes to Rs. 17 crores and the work is nearing completion.

7.42 There are 98 railway stations in Thiruvananthapuram Division. The number of passengers originating from the Thiruvananthapuram division was 374 lakhs in the review year as against 341 lakhs during the previous year. The wagons loaded from Thiruvananthapuram division showed an increase from 1.53 lakhs in 1989-90 to 1.63 lakhs in 1990-91. The number of wagons received in the division during the year 1990-91 was 1.22 lakhs which also registered an increase of 7 per cent. In the year under review, 29.96 lakh tonne goods originated and 31.97 lakh tonne goods terminated. In the case of freight operations, the three major yards such as Irimpanam, Kochi and Ernakulam Marshalling yards maintained the traffic operations. The Irimpanam yard has control over the freight transportations of M/S. Kochi Refineries Ltd., and M/s. FACT, Kochi division. The

Kochi yard has the proximity of traffic originating over the port area and the FACT godown of the division. The Ernakulam Marshalling yard controls the goods traffic to the divisions such as Nagarcoil, Thirunelveli and the industrial areas of Ernakulam.

7.43 The collection of revenue both from the passengers and goods traffic registered notable improvement during 1990-91. The revenue collection figures for 1989-90 and 1990-91 are given in Table 7.10.

TABLE 7.10
Revenue Receipts—Thiruvananthapuram
Division

Item	Gross Revenue Receipts	
	1989-90	1990-91
(1)	(2)	(3)
Passengers	5252	6020
Goods	7885	8549
Total	13137	14569

7.44 The Government of India have constituted Konkan Railway Corporation in order to construct a Railway line between Bombay and Mangalore. The line passes through the States of Maharashtra, Karnataka and Goa. The passengers who travel by the proposed route from Thiruvananthapuram to Bombay (via) Mangalore can save twelve hours of their journey time. As this is beneficial to our State, it was decided by the Kerala Government to meet a portion of the expenditure required for the construction of the above route. The share participation of Kerala is fixed as six per cent of the total cost which will be paid in three instalments. It would amount to Rs. 15 crores. The first instalment of Rs. 6 crores has already been released during the year 1990-91. Out of the second instalment of Rs. 6 crores, Rs. 3 crores has been released during the year 1991-92 and the balance will be paid before 31-3-1992. The third instalment of Rs. 3 crores will be given during the next financial year 1992-93.

Air Transport

7.45 The air transport operations in the State are undertaken by the two agencies namely Air India and Indian Airlines. Indian Airlines operates flight from Thiruvananthapuram, Kochi and Kozhikode to other major cities in the country. It also has two international flight operations to Colombo and Male. The Air India operated international flights from Thiruvananthapuram Airport to Gulf countries during the year under review.

7.46 The number of passengers originated from Thiruvananthapuram, Kochi and Kozhikode Airports decreased by 18.31 per cent during 1990-91 compared to the number of passengers during the previous year. The number of passengers terminated also registered a declining trend of 13.73%. The actual number of

passengers originated and terminated during the year 1990-91 were 2.79 lakhs and 3.16 lakhs respectively.

7.47 The freight traffic originated from, and terminated at these Airports in the State showed downward trends of 10.43 per cent and 19.40 per cent respectively in the year 1990-91. The details of freight traffic originated and terminated are given in Appendix 7.16.

7.48 The number of international flights operated from Thiruvananthapuram Airport to the International Airports showed an increase from 1,072 during the year 1990 to 1,205 in the year, 1991. Both arrival and departure of passengers showed an upward trend during the year under review. Details are given in Table 7.11.

TABLE 7.11
Arrival and Departure—Details of International Flights
Operated from Thiruvananthapuram

Item	Unit	Arrivals		Departure	
		1990	1991	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)
Passengers	No. lakhs	1.43	1.45	1.45	1.54
Cargo	Tonnes	626.03	427.51	5696.80	5029.95
Mail	"	2.91	3.45	0.53	16.84

Passports

7.49 The passports issued in the State showed a decline of 0.78 lakhs from 3.17 lakhs in 1989-90 to 2.39 lakhs in 1990-91. Information regarding the Emigration clearances is not received from the Protector of Emigrants, Thiruvananthapuram and Kochi as they have to get permission from the Ministry of Labour Government of India, New Delhi to supply the details. Appendix 7.17 indicates the information regarding the passports issued, number of fresh applications received etc. during the year 1991.

Ports and Harbours

7.50 Cochin Port is the only major port in Kerala. Neendakara, Alappuzha and Kozhikode are the three intermediate ports and Vizhinam, Thiruvananthapuram, Kollam, Kodungalloor, Vadakara, Ponnani, Thallasserry Kannur, Azheekal and Kasargod are the ten minor ports of Kerala.

7.51 The quantity of cargo handled at Cochin port during the year 1990-91 stood at 72.75 lakhs tonnes, showing an increase of 2.1% over the previous year's achievement of 71.25 lakh tonnes.

7.52 During the year, 1990-91 postal traffic handled the port recorded an increase of 15.4% while the foreign traffic showed a downfall of 15.1%. Details of coastal and foreign traffic through Cochin port are given in Table 7.13

TABLE 7.13

Coastal and Foreign Traffic through Cochin Port during 1989-90 and 1990-91

(in lakh tonnes)

Traffic	Export			Import			Total		
	1989-90	1990-91	% variation increase (+) decrease (-)	1989-90	1990-91	% variation increase (+) decrease (-)	1989-90	1990-91	% variation increase (+) decrease (-)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Coastal	5.89	6.44	(+) 9.34	35.70	41.13	(+) 15.21	41.59	47.57	(+) 14.38
Foreign	4.83	3.81	(-) 21.12	24.83	21.37	(-) 13.93	29.66	25.18	(-) 15.10
Total:	10.72	10.25	(-) 4.38	60.53	62.50	(+) 3.25	71.25	72.75	(+) 2.11

Source: Administration Report of Cochin Port Trust, 1990-91.

7.53 Commodity-wise import traffic through Cochin port during the year under review and the previous year 1989-90 are given in Table 7.14

TABLE 7.14

Commodity-wise details of import through Cochin Port during 1989-90 and 1990-91

(in tonnes)

Commodity	1989-90		1990-91		% variation in- crease (+)/ decrease (-)
	Quantity	% to total	Quantity	% to total	
(1)	(2)	(3)	(4)	(5)	(6)
Fertilisers and raw materials	889429	14.7	864431	13.8	(-) 2.8
Food grains	42881	0.7	27308	0.5	(-) 36.3
Iron, Steel and Machinery	20772	0.4	6549	0.1	(-) 68.5
Newsprint	13060	0.2	19819	0.3	(+) 51.8
Cashewnuts	21060	0.3	4809	0.1	(-) 77.2
Miscellaneous*	5065957	83.7	5327401	85.2	(+) 5.2
Total:	6053159	100.0	6250317	100.0	(+) 3.3

*includes POL

Source: Administration Report of Cochin Port Trust 1990-91

7.54 The commodity-wise details of export during 1990-91 compared to the previous year are given below. (Table 7.15)

TABLE 7.15

Commodity-wise statement of export during the years 1989-90 and 1990-91

(In tonnes)

Commodity	1989-90		1990-91		% variation in- crease (+)/ decrease (-)
	Quantity	% to total	Quantity	% to total	
(1)	(2)	(3)	(4)	(6)	(6)
Tea	12347	1.2	9580	0.9	(-) 22.8
Cashew kernels	46095	4.3	49970	4.9	(+) 8.4
Sea foods	53123	5.0	58598	5.7	(+) 10.3
Coir products	26117	2.4	24198	2.4	(-) 7.3
Spices	41268	3.8	35976	3.5	(-) 12.8
Coffee	57852	5.4	35892	3.5	(-) 38.0
Miscellaneous*	834666	77.9	810822	79.1	(-) 2.9
Total:	1071468	100.0	1024986	100.0	(-) 4.3

*includes: POL

Source: Administration Report of Cochin Port Trust 1990-91.

7.55 Number of ships which called at the Cochin Port during 1989-90 and 1990-91 and their Net Registered Tonnage are given in Appendix 7.18

7.56 Total number of passengers sailed from and arrived at Cochin port during 1990-91 were respectively 20632 and 22505 persons as against the previous years level of 21003 and 20978 persons respectively.

7.57 Among the thirteen intermediate and minor ports, landing and shipping operations were carried out only at four ports viz. Kovalam-Vizhinjam, Neendakara, Azheekal and Kozhikode.

7.58 The total quantity of cargo handled during 1990-91 was 1,30,105 MT as against 1,57,866 M.T. during the previous year registering a shortfall of 17.58%. This downfall is mainly due to the lack of foodgrain imports. The details of commodity-wise cargo handled at the intermediate and minor ports during 1990-91 are given in Appendix 7.19.

7.59 Total number of vessels both steamers and sailing vessels, which called at the Intermediates and Minor ports during 1990-91 is 448 against 416 during the previous year. Port-wise details are given in Appendix 7.20.

7.60 The passenger steamer service introduced during 1987 continued during the year also. The steamer carried 2938 passengers to the Islands and 369 passengers from the Islands. The service of the oil barge also continued during the year under review.

7.61 The dredging operations were conducted at Neendakara, Beypore and Ponnani Ports. Private dredging conducted at Cochin shipyard and Vizhinjam Wave Energy Project. Particulars of dredging operations are appended (See Appendix 7.21).

7.62 The total number of harbour crafts registered at all the 13 ports during 1990-91 was 1504. But in the previous year, only 520 harbour crafts were registered. Category-wise details of harbour crafts registered at the Intermediate and Minor ports during the reporting year are given in Appendix 7.22

7.63 Total revenue collected at all the 13 ports including the private dredging charges collected by the Director of Ports during 1990-91 stood at Rs. 44,28,355 as against the preceding years collection of Rs. 50,82,693. Item-wise details of revenue collections are shown in Appendix 7.23.

7.64 Hydrographic surveys were conducted at the ports of Vizhinjam, Neendakara, Munambam, Ponnani, Beypore, Azheekal, Mopla Bay and Kasaragod during 1990-91. Hydrographic investigation data was utilised by the Port Department and Harbour Engineering Department for the development of various minor ports and fishing harbours.

7.65 Construction of 70 m length wharf at Neendakara Cargo Harbour was completed during the year under review. Shore protection works were also completed. Resurfacing of approach road to both the breakwaters at Beypore port was completed during the year 1990-91.

7.66 Maintenance works of Port Department buildings and structures at Kasargod, Kannoor, Vadakara, Kozhikode, Beypore and Ponnani were carried out during the year under review. Repairs and replacement of fenders and trolley line and other structures at Alappuzha and Valiyathura were also done for shipping operations.

Inland Water Transport

7.67. The three agencies viz. State Water Transport Department (SWTD), Kerala Shipping and Inland Navigation Corporation Ltd. (KSINC) and Water Transport Wing of KSRTC were engaged in the water transport operations in Kerala. SWTD and Water Transport Wing of KSRTC mainly deal with passenger transport operations and KSINC deals with cargo transport operations.

7.68. The three agencies together carried 261.35 lakh passengers during the year under review as against 256.29 lakh passengers during the preceding year. Total quantity of cargo handled was only 0.03 lakh tonnes during 1990-91. The KSINC had not carried any quantity of cargo during the year 1990-91. During the previous year, the volume of cargo handled by the three agencies together was 1.87 lakh tonnes.

7.69. Total revenue collected through Inland Water Transport operations during the year was to the tune of Rs. 263.76 lakhs as against the previous year's revenue collection of Rs. 270.48 lakhs, showing a shortfall of 2.5%. Revenue expenditure incurred during the year was Rs. 477.12 lakhs. This shows an increase of 7.2% over the preceding year's expenditure of Rs. 445.06 lakhs. Total loss of these three agencies together increased to Rs. 213.36 lakhs during the year from Rs. 174.58 lakhs during the previous year.

State Water Transport Department

7.70. State Water Transport Department (SWTD) operated boat services mainly for passenger traffic. It operated 56 schedules during 1990-91 covering a total route distance of 1861.6 kms. The Department owned 88 number of boats of which 44 were in operation. Out of the 88 boats 36 were aged over 20 years. The boat services carried 119.57 lakh passengers during the reporting year against the preceding year's number of 120.57 lakh passengers. The boat services also carried 3,254 tonnes of cargo during the year.

7.71. Total revenue receipts and total revenue expenditure during 1990-91 were Rs. 135.64 lakhs and Rs. 324.98 lakhs respectively. This resulted in a net loss of Rs. 189.33 lakhs. In the previous year also the State Water Transport Department incurred a loss of Rs. 110.80 lakhs. A total number of 1167 persons were employed in this organisation during the year 1990-91. Details on operational statistics are given in Table 7.12

Kerala Shipping and Inland Navigation Corporation Ltd.

7.72. Kerala Shipping and Inland Navigation Corporation Ltd. (KSINC) operated only passenger boat services during 1990-91. The Corporation operated boat services with a total of 116 schedules covering a gross route distance of 970 kms. The Corporation owned

11 number of boats of which 9 were in operation. By the boat services the Corporation could serve 48 lakh passengers during the year. There was no cargo transport operation conducted by KSINC Ltd. during the year under review.

7.73. An amount of Rs. 37.21 lakhs was collected as revenue receipt as against a revenue expenditure of Rs. 45.60 lakhs during 1990-91. Thus, the net loss of the Corporation was Rs. 8.39 lakhs. Operational statistics of KSINC Ltd. are tabulated in Table 7.12.

Water Transport Wing of KSRTC

7.74. Water Transport Wing of KSRTC operated only passenger boat services in and around Kochi. It operated boat services in 8 routes. The KSRTC

owned 12 boats during the year 1990-91. All the 12 boats were aged over 20 years and all of them were in operation. The boat services carried 93.78 lakh passengers during the year under review as against 85.58 lakh passengers during the previous year.

7.75. Total revenue income received during the year was only Rs. 90.91 lakhs against the revenue expenditure of Rs. 106.54 lakhs. Considering the staff cost also the net loss of the Water Transport Wing of KSRTC was Rs. 54.24 lakhs during the year 1990-91. Operational details of Water Transport Wing of KSRTC are given in Table 7.12.

TABLE 7.12

Operational Statistics Pertaining to Inland Water Transport

Particulars (1)	1989-90			1990-91		
	SWTD (2)	KSINC (3)	KSRTC (4)	SWTD (5)	KSINC (6)	KSRTC (7)
1. Total number of boats	86	9p* & 8b*	12	88	11	12
2. Boats aged over 20 years	21	Nil	12	36	Nil	12
3. Boats in operation	44	9p* & 8b*	12	44	7	12
4. Number of trips or schedules	54	82	243	56	82	..
5. Gross route distance (kms)	7345	896	..	7345	970	..
6. Number of passengers carried (lakhs)	126.91	43.80	85.58	119.57	48	93.78
7. Volume of cargo carried (lakh tonnes)	0.03	1.84	Nil	0.03	..	..
8. Total Revenue Receipt (Rs. lakhs)	140.03	79.65	50.80	135.65	37.21	90.91
9. Total Revenue Expenditure (Rs. lakhs)	250.83	91.16	103.07	324.98	45.60	106.54
10. Loss (Rs. lakhs)	110.80	11.51	52.27	189.33	8.39	15.63@

Note:—*p—passenger boats
b—barges
@—excluding staff cost

Communications

7.76. Kerala Postal Circle comprises of 24 postal services divisions and 3 other postal services divisions. Under the 24 divisions there were 4,905 post offices with 50 Head Post offices, 1,973 Departmental and Extra Departmental Sub Post offices and 2,882 Branch Offices during the year 1991-92. The total number of post offices showed an increase by 0.9% over the previous year's figure of 4,861 post offices. Among the 4,905 post offices, 10 post offices were in Lakshadweep and 4 post offices were in Mahe. Excluding these 14 post offices, only 4,891 post offices were situated in Kerala.

7.77. The 3 Other Postal Services Divisions are (i) Railway Mail Service Division (ii) Mail Motor Service Division and (iii) Central Stamp Depot. Under these 3 other postal services divisions there were 89 offices functioned during the year 1990-91. Category-wise details of offices in Postal and other postal services are given in Appendix 7.24. Growth of postal system during the last ten years is shown in Appendix 7.25.

7.78. Speed Post system was introduced in the year 1987 with one speed post centre at Kochi. The system has developed with 4 centres during 1989-90 and has further improved to 6 centres during the year under review which were at Thiruvananthapuram, Kollam, Kochi, Aluva, Thrissur and Kozhikode. Names of speed post centres in India and in Foreign countries are given in Appendix 7.26.

7.79. Average area and population served by one post office in Kerala were respectively 7.946 sq. kms. and 5,932 persons during 1990-91. The corresponding figures pertaining to the previous year were 8.018 sq. kms. and 6,166 persons respectively. Excluding the 14 post offices in Lakshadweep and Mahe, the total number of post offices increased to 4,891 during the year 1990-91 from 4,847 during the preceeding year. This shows an increase at the rate of 0.91%.

7.80. District-wise details of area and population served by one post office are given in Appendix 7.27. Division-wise details of post offices in different categories are also appended (see Appendix 7.28).

7.81. Kerala Telecom Circle is divided into 10 Secondary Switching Areas (SSA) viz. Thiruvananthapuram, Kollam, Pathanamthitta, Alappuzha, Kottayam, Eranakulam, Thrissur, Palakkad, Kozhikode and Kannoor. Under these 10 SSAs there were 649 exchanges during 1990-91 as against 636 number of exchanges during the preceding year. The Telecommunication system in Kerala has developed to a total equipped capacity of 281,607 during the year 1990-91 from the equipped capacity of 246,190 connections during the previous year. This has recorded an increase at the rate of 14.39%. Total number of working connections also recorded 12.45% increase during the reviewing year. During the year 1990-91 there were 260,261 working connections in Kerala. Number of applications for telephone connection went up to 174,833 during the year 1990-91 making an increase of 20.70% over the previous year's total number of 144,850 applications. Total number of applications in the waiting list was increased to 213,638 on 31st December 1991 from 174,833 on 31st March 1991.

7.82. Between the period from 1st April 1991 to 31st December 1991, 8 new exchanges have been introduced with an equipped capacity of 27,883 connections in Kerala Telecom Circle. Under these 8 exchanges 16,712 number of new telephone connections could be provided. Therefore, as on 31st December 1991 total number of exchanges under the 10 SSAs has increased to 657 with a total equipped capacity of 309,490 connections and 276,973 working connections.

7.83. There were 5,658 number of Public Call Offices as on 31st December 1991 under the Kerala Telecom Circle of which 4,015 were Local Public Call Offices, 1521 were STD Public Call Offices and 122 were Long Distance Public Call Offices. As on 31st March 1991 there were only 4,985 Public Call Offices. On an average one telephone served 112 persons of Kerala during 1990-91. The SSA-wise statistics relating to Kerala Telecom Circle are given in Appendix 7.29.

Tourism

7.84 The year 1991 was declared as 'Visit India Year' by Government of India which was later changed to 'India Tourism Year'. In line with this, the State Government also gave a fillip to tourism promotion activities in the State. The efforts made by the Government had a perceptible impact on the tourist inflow into the State. The number of foreign tourist inflow to the State increased by about 5% from 66,139 in 1990 to 69,309 in 1991.

7.85 The Department of Tourism and the Kerala Tourism Development Corporation are the two main agencies which carry out tourism promotion activities in the State. These two agencies together spent Rs. 249.18 lakhs for tourism development in the State. In addition to this, Rs. 65.54 lakhs was spent under Central assistance.

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7.86 The major works carried out by the Department of Tourism during the year under review were development of Veli, Ponmudi, Pathiramanal and Waterfalls at Meehinmutty, Palaruvi, Athirappally and Valara. The construction of guest houses at Kannur, Kasaragod, Idukki and Alappuzha was continued during the year under report. The Department of Tourism utilised Rs. 48.95 lakhs for the publicity efforts. The main activities under this item were Tourism Week celebrations, Great Elephant March and Nishagandhi Dance festival. Besides, high quality tourist literature, folders and brochures were got printed and distributed. An amount of Rs. 9.16 lakhs was spent for the maintenance of the Tourist Information Centres. The District Tourism Promotion Councils were given encouragement for undertaking tourism promotion activities in their respective districts. Some of the major programmes implemented by the DTTCs are construction of a telescope tower at Trichur, multipurpose pavilion at Pathiramanal and introduction of watersports in the lakes at Kozhikode. The Kerala Institute of Tourism and Travel studies was provided with Rs. 5 lakhs for improving their infrastructure facilities and conducting training programmes. The construction of Rope way at Malam-puzha was completed during the year under review.

7.87 Infrastructural facilities were provided in the various tourist centres already developed through the Government of India funds. Other schemes carried out by the Department during the year under report include development and maintenance of the Kovalam beach, tourist opinion surveys conducted at different tourist centres, formation of tourism clubs in colleges, subsidy to schools, colleges, and hostels for arranging tours, light and sound show conducted at Kanakakkunnu Palace, renovation of Kanakakkunnu Palace etc.

7.88 Construction of floating restaurant at Veli, Yathrinivas at Thiruvananthapuram, Kollam and Kovalam, Wayside amenities at different places and illumination works at Napier Museum, Thiruvananthapuram were completed with Central assistance.

7.89 The main activities of the Kerala Tourism Development Corporation consist of hoteliering, transport operations, centralised reservation services and promotion and publicity.

7.90 The Corporation has 11 hotel units, 2 Yathrinivas and 8 motels under its control. Out of the 11 hotel units, only three had an occupancy ratio above 60 per cent. The total income of the Corporation for the year amounted to Rs. 459.09 lakhs and the expenditure stood at Rs. 397.77 lakhs. The administrative and operational expenses were in the ratio 58:42. The accumulated loss of the Corporation as on 31-3-1991, stood at Rs. 797.81 lakhs. The operational details of the KTDC are provided in Appendix 7.30. The Tourism Resorts Kerala Ltd. was provided with Rs. 50.70 lakhs for the construction of hotel project at Cochin and this project was completed during the year under report.

EXPORT IMPORT TRADE

India's Foreign Trade

The national economy has been experiencing a difficult fiscal and balance of payments situation in recent years which got accentuated due to the Gulf Crisis in 1990-91. The large and sustained current deficits in the balance of payments had to be financed by substantial inflow of capital in the form of loans and borrowings. The decline in the availability of concessional capital from multi-lateral and bilateral sources mounted additional pressure on the already fragile balance of payment position (BOP). These factors led to a larger reliance on external commercial borrowings.

8.2 The dwindling foreign exchange reserves during the early part of 1991 barely sufficient to meet imports for weeks and the imminent possibility of defaulting in external payments obligations led to a series of policy measures aimed to tide over the BOP crisis in the short run and to sustain the stability by correcting certain macro-economic imbalances in the medium term.

8.3 In order to manage the economic crisis in general and the BOP situation in particular the Government have announced a number of liberalisation measures related to monetary, fiscal, trade and industrial sectors, to restructure and revitalise the Indian economy and to achieve faster growth rate. In order to correct the persisting imbalance on the trade account, the Government have resorted to a realistic adjustment of the value of Indian currency, followed by import restrictions and sweeping trade reforms. Thus under various bouts of exchange rate adjustments between 20th June and 3rd July 1991, the Indian rupee depreciated by 18 per cent vis-a-vis the basket of five major currencies, viz., the Pound Sterling, the U.S. Dollar, the Deutsche Mark, the French Franc and the Japanese Yen. It is expected that the exchange rate adjustments will stop further deterioration in the country's balance of payments in the short term and improve it in the medium term by improving the trade balance. Immediately following the devaluation, the Government announced a set of major trade reforms in July 1991. The salient features of the policy include the suspension of Cash Compensatory Support (CCS), the introduction of exim-scrip, abolition of supplementary licences, decanalisation of non-essential imports, and the removal of import licensing for capital goods and raw materials, except for a small negative list. The policy envisages the full convertibility of rupee on the trade account in three to five years. The new REP scheme will give maximum incentive to exporters, whose import intensity is low like agricultural exports. In the Central Budget for 1992-93, the exim-scrip scheme was given up in favour of partial convertibility of the rupee.

8.4 The comfortable level of foreign exchange reserves [comprising foreign currency assets of the Reserve Bank of India (RBI), Gold and SDR holdings] which stood at Rs. 17,070 crores at the end of 1991 is a

reflection of the favourable effects of the policy measures, the increased recourse to IMF and the specific schemes for borrowals like India Development Bonds.

TABLE 8.1

Foreign Exchange Reserves: 1960-81 to 1990-91

(Rs. crores)

Year	Foreign currency assets of RBI at the end of the year	Foreign exchange reserves at the end of the year @	Movements in foreign exchange reserves	Net draws on IMF
(1)	(2)	(3)	(4)	(5)
1980-81	4822	5544	(-)390	814*
1981-82	3355	4024	(-)1520	637
1982-83	4265	4782	758	1893
1983-84	5498	5972	1190	1342
1984-85	6817	7243	1271	63
1985-86	7384	7820	577	(-)327*
1986-87	7645	8151	331	(-)840*
1987-88	7287	7687	(-)464	(-)1388*
1988-89	6605	7040	(-)647	(-)1749*
1989-90	5787	6251	(-)789	(-)1688*
1990-91	4388	11416**	5165**	(-)2043*
1991-92+	8007	17070	5654	..

Notes: @ Includes foreign currency assets of RBI, gold holdings of RBI and SDR holdings of government.

* Includes Trust Fund loan draws and repayments.

** Effective October 17, 1990 gold is revalued closer to international market price at the end of every month. For earlier periods gold is valued at official rate of Rs. 84.39 per 10 grams.

+As on December 13, 1991.

Source: (i) Economic Survey 1990-91;
(ii) R.B.I. Bulletin, January 1992.

8.5 The momentum of export growth achieved in earlier years was strengthened in 1989-90, when exports rose by 36.8 per cent in rupee terms and 19 per cent in terms of US dollars. However, during 1990-91 there was a marked deceleration in the pace of export growth and the increase was only 17.6 per cent in rupee terms as can be seen from the Table 8.2. The exports, however, increased by only 9 per cent in terms of US dollars. During 1990-91 the exports of agriculture and allied products rose by only about 30 per cent as against 33 per cent during the

previous year and manufactures posed an increase of only 13.6 per cent as against 39.2 per cent during the previous year. The recent Gulf crisis coupled with the recessionary trend in the industrial economies has adversely affected our export growth during 1990-91. The lower growth in the export of manufactures is attributed to the set back suffered in the exports of gems and jewellery and jute manufactures, along with a discernible deceleration in the export growth of chemicals, engineering goods and ready-made garments.

8.6 During 1990-91, imports at Rs. 43,193 crore were higher by 21.9 per cent in rupee terms and 13.1 per cent in US dollar terms over the previous year. The items under the category of bulk imports constitute about 45.6 per cent of the total imports. The imports under this category have gone up by about 34 per cent whereas the POL under the category showed a substantial expansion of 72.5 per cent during 1990-91.

8.7 The direction of India's foreign trade shows that the shares of EEC and North America in our exports increased during the Seventh plan period while those of the OPEC and East European countries declined. As regards imports, the shares of the EEC, OECD countries other than North America and developing countries were higher during the Seventh plan period as a whole, while those of North America, OPEC and Eastern Europe were lower.

8.8 As a result of the measures adopted, the trade figures for the first six months of 1991-92 show that there has been a marked improvement in the trade balance. During April-September 1991, the exports increased by 23.75 per cent to Rs. 18711 crores, from Rs. 15120 crores during the corresponding period of the previous year. The imports have shown a growth rate of only 8.75 per cent to Rs. 21066 crores during April-September 1991, from Rs. 19370 crores during the corresponding period of the previous year. Consequently, the trade deficit declined from Rs. 4250 crores to Rs. 2355 crores during the same period. Another notable feature of our export performance during 1991-92 is the increasing share of General Currency Area (GCA) in total exports. The trends in export, import and balance of trade are given in Table 8.2.

TABLE 8.2
India's Foreign Trade: 1980-81 to 1991-92
(Rs. in crores)

Year	Export	Import	Balance of Trade
(1)	(2)	(3)	(4)
1980-81	6711	12549	(-)5838
1981-82	7806	13608	(-)5802
1982-83	8803	14294	(-)5491
1983-84	9771	15831	(-)6060
1984-85	11744	17134	(-)5390
1985-86	10895	19658	(-)8763
1986-87	12452	20096	(-)7644
1987-88	15674	22244	(-)6570
1988-89	20232	28235	(-)8003
1989-90 (PR)	27681	35416	(-)7735
1990-91 (P)	32553	43193	(-)10640
1991-92* (P)	18711	21066	(-)2355

Note: * April-September

PR: Partially Revised.

P: Provisional.

Source: Reserve Bank of India Bulletin, January 1992.

Kerala's Export Prospects:

8.9 In the wake of the recent trade policy initiatives, it is expected that Kerala economy is likely to have a comparative advantage. A noteworthy feature of the foreign exchange earnings of the State is that the import intensity is virtually zero (with the exception of cashew) as our major sources are agro-based products and manpower.

Trade Through Kochi Port

8.10 During 1990-91 Kochi Port handled 72.75 lakh tonnes of Cargo as against 71.25 lakh tonnes in the preceding year registering an increase of 2.11 per cent. Bulk cargo handled increased to 67.04 lakh tonnes from 65.38 lakh tonnes, while break bulk cargo handled recorded a slight fall to 5.71 lakh tonnes in 1990-91, from 5.87 lakh tonnes during the previous year.

8.11 During the year, coastal traffic handled at the port recorded an increase by 14.4 per cent to 47.57 lakh tonnes from 41.59 lakh tonnes in the preceding year while the tonnage of foreign trade handled showed a fall by 15.1 per cent to 25.18 lakh tonnes from 29.66 lakh tonnes as shown in table 8.3.

TABLE 8.3
Cargo Handled by Kochi Port: 1989-90 & 1990-91

Traffic	(in lakh tonnes)					
	Export		Import		Total	
	1989-90	1990-91	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Coastal	5.89	6.44 (9.34)	35.70	41.13 (15.21)	41.59	47.57 (14.37)
Foreign	4.83	3.81 (-21.12)	24.83	21.37 (-13.93)	29.66	25.18 (-15.10)
Total	10.72	10.25 (-4.38)	60.53	62.50 (3.25)	71.25	72.75 (2.11)

Note: Figures in brackets indicate percentage change over the previous year.

Source: Cochin Port Trust: Administration Report 1990-91.

8.12 It is seen that, both foreign exports and imports have declined in 1990-91 over the previous year. Exports registered a fall of 21.12 per cent, where as imports have fallen at a lesser rate of 13.93 per cent.

Exports

8.13 The Commodity-wise details of exports through Kochi port are given in table 8.4.

TABLE 8.4
Commodity-wise Exports Through Kochi Port 1989-90 and 1990-91

(Tonnes)

Commodity	1989-90		1990-91		Percentage Variation over 1989-90
	Quantity	Percentage to total	Quantity	Percentage to total	
(1)	(2)	(3)	(4)	(5)	(6)
Tea	12347	1.2	9530	0.9	(-)-22.8
Cashew Kernels	46095	4.3	49970	4.9	(+)-8.4
Sea foods	53123	5.0	58598	5.7	(+)-10.3
Coir Products	26117	2.4	24198	2.4	(-)-7.3
Spices	41268	3.8	35976	3.5	(-)-12.8
Coffee	57852	5.4	35892	3.5	(-)-38.0
Miscellaneous*	834666	77.9	810822	79.1	(-)-2.9
Total	1071468	100.0	1024986	100.0	(-)-4.3

* Includes P. O. L.

Source: Cochin Port Trust, Administration Report, 1990-91.

8.14 It is seen that the exports of major items like tea, coir products, spices and coffee have registered a decline during 1990-91, of which the fall in exports of coffee (-38.0) and tea (-22.8) is significant. Cashew

kernels and sea foods improved its export performance by 8.4 per cent and 10.3 per cent respectively.

8.15 The commodity-wise value of foreign export trade through Kochi port from 1986-87 to 1990-91 is given in Table 8.5.

TABLE 8.5
Commodity-wise Value of Foreign Export Trade: Kochi Port, 1986-87 to 1990-91

(Rs. in crores)

Commodity	1986-87	1987-88	1988-89	1989-90	1990-91	Percentage variation over 1989-90
Tea	37.10	33.35	43.46	32.38	30.02	(-)-7.29
Pepper	191.65	233.65	156.23	148.00	99.97	(-)-32.45
Cardamom	3.99	0.56	1.41	0.90	2.13	(+)-136.67
Cashew kernels	302.81	278.42	251.23	334.58	391.83	(+)-17.1
Coffee	112.84	111.35	127.05	136.35	79.70	(-)-41.55
Ginger	2.47	3.84	7.83	9.42	7.85	(-)-16.67
Sea foods	167.11	187.47	224.15	236.72	317.44	(+)-34.09
Coir products	33.10	20.97	20.94	23.95	28.25	(+)-17.95
Miscellaneous	327.77	164.10	248.53	295.28	357.31	(+)-21.01
Total	1178.84	1033.71	1080.83	1217.58	1314.50	(+)-7.96

Source: Cochin Port Trust: Administration Report 1990-91.

8.16 In value terms, exports of cardamom, sea foods, coir products and cashew kernels registered a positive growth where as the exports of coffee, pepper

ginger and tea showed a decline during 1990-91 over the previous year.

8.17 The commodity-wise details of major imports through Kochi Port are given in Table 8.6.

TABLE 8.6
Commodity-wise Imports: 1989-90 and 1990-91

Commodity	(Tonnes)				
	1989-90		1990-91		Percentage variation over 1989-90
	Quantity	percentage share	Quantity	percentage share	
(1)	(2)	(3)	(4)	(5)	(6)
Fertilizers & Raw materials	889429	14.7	864431	13.8	(-)2.8
Food grains	42881	0.7	27308	0.5	(-)36.3
Iron, Steel & Machinery	20772	0.4	6549	0.1	(-)68.5
News print	13060	-0.2	19819	0.3	(+)51.8
Cashewnuts	21060	0.3	4809	0.1	(-)77.2
Miscellaneous *	5065957	83.7	5327401	85.2	(+)5.2
Total	6053159	100.00	6250317	100.0	(+)3.3

* Includes P.O.L.

Source: Cochin Port Trust Administration Report, 1990-91

8.18 Fertilizers and raw-materials as a single sub-group, account for about 13.8 per cent of the total imports in 1990-91. All the major groups of commodities except newsprint and miscellaneous items registered a decline of varying magnitude in 1990-91 over the previous year.

Marine Products

8.19 The Marine products occupy an important position in the foreign exchange earnings of the country. Kerala has a total coastline of 590 kilometres, which is about 10 per cent of the total coastline in the country. The fishery area in Kerala consists of the intercontinental shelf spread over 29 lakh hectares, almost 8 per cent of the total in the country. The inland water areas suitable for promotion of culture fisheries is estimated to be around 3.6 lakh hectares.

8.20 The year, 1990-91 ended on a triumphant note as it notched up a record performance by exporting 139419 tonnes of marine products from the country, valued at Rs. 893.37 crores, as seen in the table 8.7.

TABLE 8.7
Exports of Marine Products: Kerala/India 1980-81 to 1990-91
(Qty. in Tonnes, Value in Rs. lakhs)

Year	India		Kerala		Percentage share of Kerala	
	Quantity	Value	Quantity	Value	Quantity	Value
	(1)	(2)	(3)	(4)	(5)	(6)
1980-81	75591	23484	29148	9534	39	41
1981-82	70105	28601	32006	12513	46	44
1982-83	78175	36136	32525	14147	42	39
1983-84	92691	37302	32840	14086	35	38
1984-85	87187	38429	31570	14798	36	39
1985-86	83651	39800	29580	13808	35	35
1986-87	85843	46067	33906	16457	39	36
1987-88	97179	53120	35576	18394	37	35
1988-89	99777	59785	45614	22131	46	37
1989-90	110843	63499	47245	24094	43	38
1990-91	139419	89337	50997	31379	37	35

Source: The Marine Products Export Development Authority, Kochi

8.21 The export touched an all time high and registered an increase of 25.78 per cent in terms of quantity and 40.69 per cent in terms of value. Thus, the average unit value realisation has increased to Rs. 64.08 per Kg. in 1990-91 from Rs. 57.29 per Kg. during the previous year.

8.22 The exports from Kerala increased from 47245 tonnes valued at Rs. 240.94 crores in 1989-90 to 50997 tonnes valued at Rs. 313.79 crores in 1990-91, indicating a growth rate of 7.94 per cent in terms of quantity and 30.23 per cent in terms of value. Thus, Kerala accounts for about 36.58 per cent of total exports

from the country in terms of quantity and 35.12 per cent in terms of value.

8.23 The major items of exports of marine products is given in the Table 8.8. Frozen shrimp account for about 45 per cent of quantity exported and 74 per cent of the value realised during 1990-91. The export growth of marine products has been achieved in the face of stiff competition in major markets, viz., Japan and U.S.A., from China, Indonesia, Ecuador, Taiwan etc. The diversification of markets and products has contributed in no small way in achieving these significant results. Besides, our export has increased substantially due to the demand for hitherto less preferred items of sea food other than shrimp.

TABLE 8.8

Major Items of Export of Marine Products: India—1989-90 & 1990-91

(Qty. in tonnes, value in Rs. lakhs)

Major items	1989-90		Percentage share		1990-91		Percentage share	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Frozen shrimp	57819	46330.88	52.16	72.96	62395	66332.69	44.75	74.25
Frozen Lobster/Lobster tails	2068	3362.80	1.87	5.30	1600	3430.20	1.15	3.84
Frozen cuttle fish/Fillet	14158	4730.98	12.77	7.45	11596	4528.74	8.32	5.07
Fresh/frozen fish	21227	4820.31	19.15	7.59	42340	9082.14	30.37	10.16
Frozen squid	11944	2848.39	10.77	4.49	16667	4498.81	11.95	5.03
Dried fish	1081	146.85	0.98	0.23	1127	140.36	0.81	0.16
Shark fins and fish maws	295	598.83	0.27	0.94	152	300.95	0.11	0.34
Other Items	2251	660.22	2.03	1.04	3542	1023.09	2.54	1.15
Total	110843	63499.26	100.00	100.00	139419	89336.98	100.00	100.00

Source: The Marine Products Export Development Authority, Cochin.

8.24 Provisional estimates show that the exports from Kerala during April-November 1991 increased from 30366 tonnes to 37203 tonnes valued at Rs. 174.32 crores to Rs. 287.98 crores respectively from that of the same period during the previous year. It represents 22.5 per cent increase in terms of quantity and 65 per cent increase in terms of value. At the national level, the export is targeted to reach 175000 tonnes of marine products having an estimated value of Rs. 1500 crores during the current year, of which, share of Kerala is estimated to be 57300 tonnes valued at Rs. 460 crores.

Export of Spices

8.25 India is one of the leading spices producing countries in the world, producing important spices like pepper, ginger, cardamom, turmeric, chillies and seeds spices like coriander, cumin etc. Pepper, cardamom, ginger and turmeric are the major spices grown in Kerala. Kerala accounts for almost the entire quantity of pepper exported from the country and about 80 per cent of cardamom. The total export of spices declined from 102170 tonnes valued at Rs. 275.76 crores in 1989-90 to 97291 tonnes worth of Rs. 238.66 crores in 1990-91 representing a negative growth rate 4.78 per cent in terms of quantity and 13.45 per cent in terms of value. The decline was due to a variety of reasons like rise in domestic consumption, high prices in the domestic market, non-competitive international market, lower export to the gulf countries and lower productivity of major spices in 1990-91.

Pepper

8.26 India continues to be the largest producer and exporter of black pepper in the world. Among the major spices exported from the country, pepper has a share of 46.5 per cent in terms of value. During 1990-91 India exported 31871 tonnes of pepper valued at Rs. 111.06 crores indicating a fall of 7.57 per cent in quantity exported and 27 per cent in terms of value realised as shown in the Table 8.9. Correspondingly, the unit value has fallen from Rs. 44.35 per Kg. to Rs. 34.84 registering a fall of 21.44 per cent.

TABLE 8.9

Export of Black Pepper: India: 1984-85 to 1990-91

Year	Quantity (MT.)	Value (Rs. crores)	Unit value (Rs./Kg.)
(1)	(2)	(3)	(4)
1984-85	25420	60.54	23.81
1985-86	37620	172.48	45.85
1986-87	37083	200.33	54.02
1987-88	41011	240.58	58.66
1988-89	36981	164.63	44.51
1989-90	34482	152.96	44.35
1990-91	31871	111.06	34.84

Source: Spices Board

8.27 There was an unprecedented rise in prices of pepper in the international market from 1985-86 onwards, mainly on account of lower world supply position. However, the prices have shown a declining trend from 1988-89 onwards due to a revival in world supply. Even though Kerala pepper has been enjoying a premium price in the international market, the prospective glut is likely to erode our bargaining position. The devaluation, it is expected, will again put India in a better position.

Small Cardamom

8.28 About 60-65 per cent of the small cardamom produced in the country is accounted for by Kerala. The year 1990-91 witnessed a significant increase in terms of quantity exported and value realised. The quantity exported increased from 180 MT worth Rs. 3.06 crores in 1989-90 to 379 MT valued at Rs. 10.22 crores indicating a growth rate of 110 per cent in quantity and 234 per cent in value over the previous year as shown in the Table 8.10. The better crop of 1990-91 and the demand from former USSR have contributed to augment our export of small cardamom even at higher prices during the year.

TABLE 8.10

Export of Small Cardamom: Kerala and India, 1982-83 to 1990-91

(Quantity in M.T. and value in Rs. crores)

Year	Kerala		India		share of Kerala(%)	
	Qty.	Value	Qty.	Value	Qty.	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1982-83	844	13.75	1032	16.37	82.00	84.00
1983-84	194	4.10	258	5.44	75.00	75.00
1984-85	2170	59.05	2383	64.81	91.00	91.00
1985-86	2994	49.20	3272	53.46	92.00	90.00
1986-87	1268	16.46	1447	18.50	88.00	89.00
1987-88	212	2.67	270	3.40	79.00	79.00
1988-89	606	7.88	727	10.37	80.00	80.00
1989-90	127	2.37	180	3.06	74.00	74.00
1990-91	..	..	379	10.22	..	..

Source: Spices Board

Ginger

8.29 Ginger in India is grown over 53000 hectares. The important ginger growing states in the country are Kerala, Meghalaya, Orissa and West Bengal. About 90 per cent of the total exports from the country is produced in Kerala. The trend in exports of dry ginger over the last few years is given in the Table 8.11.

TABLE 8.11

Export of dry ginger: India, 1984-85 to 1990-91

(Qty in MT, Value Rs. crores)

Year	Quantity	Value
(1)	(2)	(3)
1984-85	7330	18.73
1985-86	6820	10.89
1986-87	4843	5.71
1987-88	2628	4.89
1988-89	6368	9.40
1989-90	9037	12.68
1990-91	5487	10.89

Source: Spices Board.

8.30 The Export of Ginger in 1990-91 declined to 5487 MT valued at 10.93 crores from 9037 MT valued at Rs.12.68 crores in 1989-90 registering a fall of 39 per cent in quantity and 13.8 per cent in value. The higher prices that prevailed in the domestic market made Indian ginger uncompetitive in the international market. Further, due to the Gulf crisis the export to Saudi Arabia, Kuwait and Yaman also declined. India's export of ginger have shown a highly fluctuating trend during the 80's ranging from 2600 MT to 9000 MT. The future prospects of ginger even in the wake of devaluation mainly depend on factors like development and promotion of new value added end products, price competitiveness through increased productivity and consistently high quality through improved post harvest technology.

Turmeric

8.31 Of the total cultivated area in India, turmeric accounts for about 1.04 lakh hectares. Kerala's variety in the basket of turmeric produced in India is 'Alleppey Turmeric'. On an average, India export about 12000 MT of turmeric, valued at Rs. 12 crores per annum. During 1990-91 the volume of turmeric exported from the country declined by about 24 per cent and value by 11 per cent as shown in the Table 8.12. The decline in production and the resultant increase in domestic price have affected the export of turmeric during the year. The Gulf war also affected our exports to Iran and UAE

TABLE 8.12

Export of Turmeric: India 1983-84 to 1990-91
(Qty. in MT, Value Rs. Crores)

Year	Quantity	Value
(1)	(2)	(3)
1983-84	10890	11.06
1984-85	12800	17.16
1985-86	8560	12.09
1986-87	19530	19.18
1987-88	8747	9.23
1988-89	18968	19.39
1989-90	16860	16.15
1990-91	12764	14.33

Source: Spices Board.

8.32 Even though India is the largest producer of Turmeric in the world, the export do not work out to even 10 per cent of its estimated production. The major marketing constraints in the production of turmeric are high level of speculation in the forward market, lack of modern warehousing and storage and poor research support. The devaluation of the Indian rupee and the availability of REP licenses have made export more profitable. India's share in the world trade in spices had shown fluctuating trends ranging from 16 and 20 per cent in the 1980's. The major direction of our exports of spices are East Europe, East Asia, EEC and the Middle East. The problem in Rupee Payment Area (RPA), more particularly in the erstwhile USSR, had adverse impact on our spices export.

Cashew Kernels

8.33 India is the leading producer and exporter of cashew kernels. Kerala has a near monopoly in the production and export of cashew and account for more than 60 per cent of the production of raw nuts and 85-90 per cent of the total exports from the country.

TABLE 8.13

Export of Cashew Kernels: Kerala and India
(Quantity-MT; Value Rs. Crores)

Year	Kerala		India		Kerala's Share%	
	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1985-86	31904	196.16	37097	225.11	90.8	91.1
1986-77	37508	302.81	43004	327.55	89.8	90.6
1987-88	33163	290.36	35971	311.29	89.8	88.9
1988-89	30234	245.74	33994	273.93	88.9	88.9
1989-90	41651	334.58	44858	360.34	92.8	92.8
1990-91	44370	391.83	50101	442.44	88.5	88.6
1991-92*	..	..	21947	284.80	..	..

Source: Cashew Export Promotion Council; *April-September.

8.34 The export of Cashew Kernels from India during 1990-91 touched a new high of Rs. 442.44 crores showing a growth rate of 23 per cent over the previous year in terms of value and 11.64 percent in terms of quantity implying a higher unit value realisation. The export during April-September 1991 is estimated at 21947 tonnes valued at Rs. 284.8 crores. Direction-wise, Eastern Europe accounts for about 32 per cent of the quantity and 31 per cent of the value realised out of exports in 1990-91.

Cashew shell Liquid

8.35 The details of exports of cashew shell liquid during the year 1990-91 totalled 4420 tonnes valued at Rs. 3.15 crores registering an increase of 46 per cent in quantity and 24 per cent in value of the previous year as shown in the Table 8.14.

8.36 The increase in export was mainly accounted for by larger intake of Japan during the year. The export price was lower by 16 per cent which averaged at Rs. 7060 per MT as against Rs. 8379 per MT in the previous year.

Import of Raw Cashewnut

8.37 The import of raw-cashew nut during the year under review, amounted to 72506 MT valued Rs. 114.53 crores. The import increased by 38 per cent in terms of quantity and 58 per cent in terms of value over the previous year as shown in the Table 8.15.

TABLE 8.14

Export of Cashew Shell Liquid: Kerala & India
(Qty. in Tonnes, value in Rs. Crores)

Year	Kerala		India	
	Quantity	Value	Quantity	Value
(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	1.00	2716	1.45
1987-88	5372	2.42	6534	4.86
1988-89	915	0.63	3034	2.49
1989-90	1919	1.61	3014	2.53
1990-91	2855	2.01	4420	3.15

Source: (1) Cashew Export Promotion Council.
(2) Cochin Port Trust.

TABLE 8.15

Import of raw Cashewnut: Kerala & India
1982-83 to 1990-91

(Quantity in Tonnes, Value in Rs. Crores)

Year	Kerala*		India	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
1982-83	886	0.76	896	0.77
1983-84	17736	14.60	26877	22.12
1984-85	9813	10.78	33215	36.49
1984-86	6959	07.73	21945	24.36
1986-87	26529	37.57	49149	71.16
1987-88	30499	48.54	42609	64.37
1988-89	21847	30.57	45150	61.37
1989-90	21060	29.07	52474	72.43
1990-91	4809*	..	72506	114.53

Source: Cashew Export Promotion Council.

Note.* Import through Kochi Port.

8.38 A major constraint in boosting the export of cashew kernels from the country is the inadequacy of raw cashewnuts. Though export linked imports are permitted under the new policy regime, the industry will have to dole out more on account of imported raw nuts.

Tea

8.39 Export earnings from tea have shown an impressive growth during 1990-91, even though there has been a decline of almost 6 per cent in terms of quantity exported. During 1990-91 India exported 199,480 tonnes of tea valued at Rs. 1045.41 crores shown in Table 8.16.

8.40 Exports of tea through Kochi port also registered a decline of 22 per cent in terms of quantity and 7.2 per cent in terms of value. The boom in unit

value of tea exports persisted during 1990-91. It increased by about 23 per cent, to sustain a high level of export earnings in the face of a drop in exports. Tea exports registered a decline of 5.2 per cent during the first seven months of 1991-92 compared to the same same period last year. It is reported that India exported tea valued at Rs. 611.38 crores during the first seven months of 1991-92 compared to Rs. 644.95 crores in the same period last year. The export effort in tea has been constrained by reduced domestic supplies.

TABLE 8.16

Export of Tea—Kerala, India
(Qty. in tonnes, value in Rs. lakhs)

Year	Kerala*		India	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
1987-88	15371	3335	201830	62777
1988-89	22884	4346	204800	64187
1989-90	12347	3238	211760	91482
1990-91	9530	3002	199480	104541

Source: (i) Tea Board. (ii) *Cochin Port Trust.

Coffee

8.41 Indian coffee has been facing a difficult situation both in the national and international markets. While a fall in output coupled with an increase in prices have adversely affected the growth of domestic market, a crash in the coffee prices in the world market as a fall out of the suspension of quota by the International Coffee Organisation (ICO) in July 1989 has affected export earnings. The present International Coffee Agreement (ICA) has been extended upto September 1992 without any economic clause, which indicates that there is no restriction on exports in quantity or to destination.

TABLE 8.17

Export of Coffee: 1985-86 to 1991-92
(Qty. in tonnes, value in Rs. lakhs)

Year	Kerala*		India	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
1985-86	44570	12342	99298	27498
1986-87	31056	1284	86666	36344
1987-88	47058	11135	92533	26010
1988-89	41248	12705	98226	33772
1989-90	57852	13635	134052	36092
1990-91	35892	7970	100110	27889
1991-92†	..	..	43161	14553

Note: *Export through Kochi port. †Upto Sept 1991
Source: Coffee Board.

87/851/MC.

8.42 Coffee exports at 100,110 tonnes valued at Rs. 278.89 crores were lower by 25 per cent in terms of quantity and 23 per cent in terms of value during 1990-91. Kerala accounts for about 35 per cent of the quantity exported and 29 per cent of the value realised. Direction-wise, our major buyers are erstwhile USSR, USA, Germany, Australia, Belgium and Japan. The world coffee market has been bearish since the break down of ICO agreement. In the absence of quota system and particularly due to the stiff competition from other coffee producers like Brazil, Colombia, and Costa Rica, it would be necessary to make a significant dent into the non quota markets like Japan, to increase our coffee exports.

Coir and Coir Products

8.43 India is a major producer and exporter of coir and coir products. The exports from the country, mainly consists of white fibre yarn and its various end products. About 90 per cent of the white fibre production in India is in Kerala. The export of coir and Coir products during 1990-91 amounted to 27,926 tonnes valued at Rs. 48.33 crores as against the export of 27,458 tonnes valued at Rs. 40.18 crores during the previous year. It represents a growth rate of 1.7 per cent in quantity and 20 per cent in terms of value, as shown in Table 8.18.

TABLE 8.18

Export of Coir and Coir Products: India 1989-90 & 1990-91
(Qty. in tonnes, value in Rs. lakhs)

Items	1989-90		1990-91	
	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)
Coir fibre	49	3.70	41	3.17
Coir yarn	13770	1369.67	14109	1705.85
Coir mats	8273	1571.68	9009	2021.86
Coir matting	3580	744.92	3362	794.54
Coir rugs & Carpets	1573	289.10	1208	268.06
Coir (Other sorts)	46	7.70	51	13.10
Coir rope	74	8.85	113	15.19
Curled coir	67	4.03	17	1.02
Rubberised coir product	26	18.12	16	10.06
Total	27458	4017.77	27926	4832.85

Source: Coir Board.

8.44 Among the major items of exports, coir mats account for about 42 per cent in terms of value and 32 per cent in terms of quantity. Coir yarn accounts for a share of 35 per cent in value and 50 per cent in terms of quantity. During April-December 1991, the quantity exported touched 22,115 tonnes, valued at Rs. 49.30 crores as against 21,109 tonnes worth Rs. 36.10 crores during the corresponding period of the previous year.

8.45 Destination-wise, West Europe, including EEC accounted for about 70 per cent of India's total export of coir and coir products. The decline in export of coir over the years can be attributed to the sluggish demand for coir manufactures under the pressure of competition from synthetic substitutes, and stiff competition from Sri Lanka. However, the devaluation of Indian rupee has again brightened the export prospects as indicated by the recent trends.

Cochin Export Processing Zone

8.46 The Cochin Export Processing Zone (CEPZ) was established as a part of the national effort to promote exports through exclusive export processing zones. Out of about 50 units approved in the zone,

about 21 units have become operational. During 1990-91, 20 units have exported goods worth Rs. 5.45 crores, as against a target of Rs. 20 crores and against the achievement of Rs. 10.99 crore during the previous year. The year 1991-92 offers better prospects as the export for the period April to November 1992 has already touched Rs. 12.11 crores. During 1990-91 the import of about 21 units come to Rs. 5.25 crores, indicating an insignificant net addition to the foreign exchange earnings. The net foreign exchange earnings of the zone, notwithstanding the fact that capital goods account for a significant share of the total imports, come to only Rs. 1.12 crores. Almost 45 percent of the total exports is towards the General Currency Area (GCA) and about 55 per cent to the Rupee Payment Area (RPA).

SOCIAL SERVICES

Kerala has made signal achievements in the field of education and health and the standards attained are almost comparable to that of developed countries. It has attained 91 per cent literacy, the IMR is below 22 and expectation of life at birth is about 69 years for men and 71 years for females. An attempt to understand the development in Kerala is a matter of great interest to social scientists since this has been attained with a low per capita income level unlike in other Asian Countries such as Singapore, Taiwan, Hongkong and South Korea all of which have high per capita income, rapid economic growth, high proportion of the labour force in non-agricultural operation, higher employment, high nutritional levels etc. Also within the country, states like Punjab, Haryana etc, which have higher per capita 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 significant contribution 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. The all states average of social services expenditure in India is about 20 per cent, whereas in Kerala it is more than 30 per cent. The expenditure on Social Services Sector from 1985-86 to 1991-92 is presented in Table-9.1.

TABLE 9.1

Expenditure on Social Services Sector from 1985-86 to 1991-92

Year	(Rs. crores)		
	Total Expenditure	Expenditure on Social Services Sector	% to Total Expenditure
(1)	(2)	(3)	(4)
1985-86	1615	668	41.36
1986-87	2298	763	33.20
1987-88	1974	794	40.22
1988-89	3581	944	24.36
1989-90	3768	1063	28.21
1990-91 (RE)	4471	1387	31.02
1991-92 (BE)	4511	1412	31.30

Education

9.3 According to 1991 Census (Provisional figures) Kerala has the highest literacy rate of 90.59 per cent as against 52.11 per cent in the country. The male literacy rate is 94.45 per cent whereas the female literacy rate stood at 86.93 per cent. The literacy among Scheduled Castes and Scheduled Tribes is

almost in par with the general sector. Thus Kerala has achieved this unique position almost in par with developed nations.

School Education

9.4 The school education infrastructure in the state consisted of 12,133 schools comprising of 6767 L.P. Schools, 2915 U.P. Schools and 2451 High Schools in 1991. Of the total 12133 schools, 4485 (36.94 per cent) were in Government sector, 7331 (60.44 per cent) were private aided schools and 317 (2.62 per cent) private unaided schools. Over and above the infrastructure there were 2213 U.P. Schools and 629 High Schools having L.P. Sections and 1929 High Schools having U.P. Sections. An analysis of the school infrastructure reveals that on an average, there exists one school for every 2400 population. Details of schools are given in Appendix 9.1.

Enrolment in Schools

9.5 The total students strength in schools increased from 58.83 lakhs in 1990 to 59.01 lakhs during 1991. At the lower primary level, there was a fall in strength from 25.27 lakhs in 1990 to 24.72 lakhs in 1991. At the Upper primary level the strength increased from 18.95 lakhs in 1990 to 19.30 lakhs in 1991 and at High School level the increase was from 14.60 lakhs to 14.99 lakhs. The total increase in strength during the year under review was 18,385 students. Table 9.2 shows the stage-wise enrolment in schools from 1988-89 to 1990-91. The ratio of school going students to total population in that age group during the year under review was 92.14 for the age group 5-9 and 87.7 for the age group 10-14.

TABLE 9.2

Enrolment in Schools Stage-wise 1990-91

Stage	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)
Lower Primary	2596018	2527068	2472403
Upper Primary	1847843	1895249	1929806
Secondary	1408090	1460399	1498892
Total	5851951	5882716	5901101

Source: Directorate of Public Instruction.

9.6 Out of the total 59.01 lakhs students in 1991 the strength in urban area constituted 9.27 lakhs (15 per cent) while those in rural area stood at 49.74 lakhs (85 per cent). Girl students stood at 28.89 lakhs which represented 48.96 per cent of the total school enrolment during 1991. The standard-wise strength of students is given in Appendix 9.2

Teachers

9.7 Out of the total school teachers of 1.91 lakhs 71,989 (38 per cent) were in government sector and 119,019 in private sector. This includes 4,485 teacher working in unaided schools. Section-wise details of school teachers are given in Appendix 9.3.

Uneconomic schools and Protected Teachers

9.8 One of the problem areas in the school education sector is the existence of a large number of uneconomic schools. An uneconomic school is one which does not satisfy the requirement of para (1) of Rule 22 A of Kerala Education Rules which warrants that the minimum strength per standard in L.P./UP/

HS shall be 25. The minimum effective strength per standard in Sanskrit and Arabic Schools shall be 25. The uneconomic schools in the State increased to 964 in 1991 from 891 in 1990. Of the total 964 uneconomic schools, 509 schools were in private sector. The increase of uneconomic schools poses a major problem in the school education sector. A further analysis of the situation reveals that Kannur District had the highest number (168) followed by Pathanamthitta District. Appendix 9.4 presents the district-wise distribution of uneconomic schools in the state in 1991. The number of protected teachers in the State stood at 2,015 of which 548 were in the High School sector, 967 were in the primary sector and 500 were special teachers. District-wise distribution of protected teachers are furnished in Table 9.3.

TABLE 9.3

District-wise Details of Protected Teachers 1991

Sl. No.	District	Total No. of protected teachers for 1990-91	Category		
			High School	Primary	Spl. Teachers
(1)	(2)	(3)	(4)	(5)	(6)
1.	Thiruvananthapuram	62	8	37	17
2.	Pathanamthitta	99	15	17	7
3.	Kasaragod	55	1	46	8
4.	Trissur	158	48	70	40
5.	Malappuram	49	2	47	..
6.	Alappuzha	298	94	105	99
7.	Kollam	313	72	178	63
8.	Ernakulam	358	115	115	128
9.	Kannur	65	27	24	14
10.	Kozhikode	195	56	108	31
11.	Wayanad	22	5	16	1
12.	Kottayam	305	72	162	71
13.	Palakkad	58	32	21	5
14.	Idukki	98	1	21	16
Total		2015	548	967	500

Source: Directorate of Public Instruction.

Plus 2 Education

9.9 Higher Secondary Education was introduced in the State in 31 schools in 1990-91 and in 55 schools during 1991-92. Out of the total 86 schools, 49 were Government Schools and 37 Private Schools. The annual intake of students for the course stood at 51,60 @60 students per batch.

Vocational Higher secondary Education.

9.10 Vocational Higher Secondary Education was implemented in 186 schools (157 Government High Schools, 22 Technical High Schools and 7 Aided Schools) during 1991. The total intake capacity under this course was 12,150 students. Details of year-wise intake of students for Vocational Higher-secondary Education Courses are furnished in Table 9.4.

University Education.

9.11 The total number of Arts and Science Colleges in the State during 1991 stood at 172

consisting of 40 Government Colleges and 132 private Colleges. The University-wise distribution shows that there were 44 colleges under the University of Kerala, 57 under Mahatma Gandhi University and 71 under the University of Calicut. The district-wise distribution of Arts and Science Colleges is given in Appendix 9.5. The teachers in Arts and science Colleges in the State slightly increased from 13,900 in 1990 to 14,159 in 1991. The details are furnished in Table 9.5. The students strength at the University level aggregated to 3.56 lakhs during the year under review as against 3.29 lakhs during the previous year. Of the total 3.56 lakhs students, the strength in private colleges stood at 2.9 lakhs.

9.12 The annual enrolment in the three Universities together came to 1.56 lakhs of which girls constituted 53 per cent. The enrolment at pre-degree level was 1.06 lakhs, and at degree level it was 44,731 and at post graduate level 50,23. The percentage of enrolment of girl students was 52, 54 and 60 respectively at pre-degree, degree and post graduate levels. The relevant data on enrolment in Arts and science Colleges are given in Table No. 9.6

TABLE No. 9.4

Year wise intake of students for Vocational Education

Year	Boys	Girls	Total
(1)	(2)	(3)	(4)
1983-84	435	135	570
1984-85	1100	830	1930
1985-86	1450	1185	2635
1986-87	2000	1650	3650
1987-88	2000	1650	3650
1988-89	2100	1600	3700
1989-90	3250	1750	5000
1990-91	4700	3965	8665
1991-92	7035	5115	12150

Source: Directorate of Vocational Higher Secondary Education.

TABLE 9.5

Numbers of Teachers in Art and Science Colleges

University	Number of Teachers					
	1989-90			1990-91		
	Men	Women	Total	Men	Women	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Kerala	2433	1766	4199	2498	1804	4302
Calicut	2910	1770	4680	3019	1816	4835
Mahatma Gandhi	3120	1791	4911	3194	1828	5022
Total	8463	5327	13780	8711	5448	14159

TABLE 9.6

Enrolment by stages in Arts and Science Colleges in Kerala 1990-91

University	Pre-degree			Degree			Post Graduate			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Kerala	15936	18152	34088	7733	8439	16172	547	900	1447	24216	27491	51707
Calicut	18904	17495	36399	6833	6808	13641	706	700	1406	26443	25003	51446
Mahatma Gandhi	15834	19979	35813	6244	8674	14918	779	1391	2170	22857	30044	52901
Total	50674	55626	106300	20810	23921	44731	2032	2991	5023	73516	82538	156054

Source: Directorate of Collegiate Education.

Private Registration

9.13 Over and above the enrolment under regular system of education, the State Government have allowed private registration to cater to those students who could not attend regular courses in colleges. The course-wise details of private registration in Kerala and Calicut University are given in Appendix 9.6. During 1990, a total of 1.16 lakh students were admitted by the two universities.

Technical Education

9.14 The Technical Education infrastructure in the state consists of 9 Engineering Colleges, 30 polytechnics 47 Technical High Schools, 19 prevocational Training Centres, 7 Food Craft Institutes, one College of Fine Arts and 2 Fine Arts Institutes. Besides, there are three autonomous institutions viz., Lal Bahadur Sastri Centre for science and Technology, Institute of Human Resources Development for Electronics and Kerala State Science and Technology Museum

37|851|MC.

Engineering Colleges

9.15 The total student strength in the engineering colleges stood at 10318 during the year under review, of which girl students constituted 2208. The detail showing the strength of students and teachers in Engineering colleges, polytechnics and Technical High Schools are furnished in Appendix 9.7.

9.16 The annual sanctioned intake in engineering colleges in the State increased from 2656 in 1990 to 2941 in 1991 which represented an increase of 10.7 percent. The data on intake and outturn in engineering colleges for the period from 1986 to 1991 are furnished in Appendix 9.8. Post graduate courses are imparted in 11 major branches of emerging areas and the annual intake during 1990-91 stood at 312 which increased by 11 percent when compared to the previous year intake of 279. The relevant data are given in Table 9.7.

TABLE 9.7
Course-wise Intake in Engineering
College at post Graduate Level

Name of Course	Intake	
	1989-90	1990-91
(1)	(2)	(3)
1. Civil Engineering	55	57
2. Mechanical Engineering	41	42
3. Electrical Engineering	41	41
4. Electronics & Communication	5	5
5. Chemical Engineering	6	6
6. Instrumentation and Control System	10	10
7. Production Engineering	6	6
8. Applied Electronic and Instrumentation	5	5
9. Architecture	5	5
10. Industrial Engineering	15	15
11. Master of Computer Application	90	120
Total	279	312

Source: Directorate of Technical Education

Polytechnics

9.17 Of the total 30 Polytechnics in the State, 6 are under private sector. The total student strength during the year under review stood at 11531 of which girl students constituted 2849. Details of districtwise distribution of Polytechnics and Technical High Schools in the State are furnished in Appendix 9.9. The annual intake of students in polytechnics was 4554, and the total number of teachers in Polytechnics was 1289, of which 195 were women teachers.

Technical High Schools

9.18 The total student strength of the 47 Technical High Schools during the year under review stood at 7907 of which 869 were girl students. Teachers in the technical High Schools stood at 206. Details showing the intake and outturn of students in Engineering Colleges, Polytechnics and Technical High Schools for the period from 1985-86 to 1990-91 are furnished in Appendix 9.8. Similarly the details of engineering colleges and polytechnics with their annual intake of students relating four southern States including Kerala are given in Table 9.8. It may be noted that there are 30 self financing engineering colleges in Tamil Nadu, 34 in Karnataka and 25 in Andhra Pradesh. There are also 73 self financing polytechnics in Tamil Nadu, 138 in Karnataka and 22 in Andhra Pradesh.

TABLE-9.8
Technical Education Institutions in Southern States

Particulars	Engineering Colleges					Total Annual Intake	Polytechnics				
	Govt.	Quasi-Govt.	Private Aided	Self Financing	Total No. of Colleges		Govt.	Private Aided	Self Financing	Total No. of Polytechnic	Total Annual Intake
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Kerala	5	1 REC	3	..	9	2784	24	6	..	30	4554
Tamil Nadu	5	1 REC	3	30	39	7235	21	34	73	128	22390
Karnataka	5	..	11	34	50	16413	32	8	138	178	26725
Andhra Pradesh	18	..	..	25	43	6920	58	..	22	80	12345

Source: Figures supplied by the State Directorates of Technical Education.

Expenditure on Education

9.19 The total expenditure on education during 1990-91 was Rs. 761.50 crores (Revised Estimates) as against Rs. 629.47 crores during 1989-90. Of the total expenditure on education in 1990-91, Rs. 364.17 crores was on Primary Education (48%) and Rs. 224.82 crores on Secondary Education (30%). The expenditure on

University Education increased from Rs. 83.21 crores in 1989-90 to Rs. 114.62 crores during the year under review. Expenditure on Technical Education increased to Rs. 38.45 crores in 1990-91 from Rs. 27.64 crores during the previous year. The details of expenditure on education are furnished in Table 9.9.

TABLE 9.9
Expenditure on Education 1985-86 to 1990-91

Stages	(Rs. lakhs)					
	1985-86 (Accounts)	1986-87 (Accounts)	1987-88 (Accounts)	1988-89 (Accounts)	1989-90 (Accounts)	1990-91 Revised Estimates
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Primary Education	20951.95	24632.47	26254.58	30085.67	32468.00	36417.23
Secondary Education	12188.82	13976.58	14680.32	16270.92	18223.62	22482.30
University and other Higher Education	5313.56	6211.88	6817.76	7696.50	8321.55	11462.21
Adult Education (Special Education)	238.01	257.48	144.73	128.16	231.90	66.93
Language Development General (Research and Training)	696.25	306.36	231.63	266.34	315.97	336.01
			141.57	497.66	623.03	1539.19
Technical Education	1920.09	2423.02	2063.39	2295.05	2763.86	3845.62
Total	41308.68	47807.79	50333.98	57240.30	62947.93	76149.49

9.20 The per capita Government expenditure on education was Rs. 263 as against Rs. 11 in 1961 and Rs. 95 in 1981.

The cost of education per pupil at the primary stage increased from Rs. 734 in 1989-90 to Rs. 827 during 1990-91. At the Secondary stage it went upto Rs. 1500 during 1990-91 as against Rs. 1249 during 1989-90. Details showing cost of school education per pupil for the period from 1984-85 to 1990-91, are furnished in Table 9.10.

TABLE 9.10
Cost of School Education per pupil
1984-85 to 1990-91

Year	Primary Stage	% increase from previous year	Secondary Stage	% increase from previous year
(1)	(2)	(3)	(4)	(5)
1984-85	414.43	11.22	437.31	12.12
1985-86	479.23	15.64	906.91	23.00
1986-87	563.03	17.49	1043.00	15.00
1987-88	596.67	5.86	1130.00	8.34
1988-89	638.32	7.05	1137.00	0.62
1989-90	734.24	15.00	1248.88	9.80
1990-91	827.29(R.E)	12.70	1499.82(R.E)	20.00

Note: Cost per pupil includes expenditure on Midday Meals Programme in Schools also.

Health

9.21 The health standards achieved in the State compare very favourably with those achieved by even some of the developed countries. The efforts made in terms of institutional infrastructure and man power development have contributed to this unique situation. Besides women education the clean health habits of the people have played a key role in the attainment of the health standards in the State. The birth rate per thousand population in Kerala is 20.3, whereas the all India rate is 30.5 and the death rate per thousand population in Kerala is 6.1 where as the all India rate is 10.2. Infant mortality rate in Kerala came down to 21 per 1000 live births where as the all India rate is still as high as 93 per 1000 live births. The life expectancy at birth in Kerala is about 69 years for men and 71 for women. Some of the basic health indicators are presented in Table 9.11.

TABLE 9.11
Birth, Death and Infant Mortality Rates in Kerala

Year	Birth rate per thousand population		Death rate per thousand population		Infant Mortality rate per 1000	
	Kerala	All India	Kerala	All India	Kerala	All India
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1970	32.3	36.8	9.2	15.7	61	129
1980	26.8	33.7	7.0	12.6	42	117
1981	25.6	33.9	6.6	12.5	37	110
1985	22.9	32.9	6.9	11.8	33	97
1986	22.4	32.6	6.7	11.1	27	96
1987	21.0	32.2	6.0	10.9	26	95
1988	19.9	31.3	6.0	10.0	24	94
1989	20.3	30.5	6.1	10.2	21	93
1990	20.3	30.5	6.1	10.2	21	93

Immunisation Status

9.22 The Universal Immunisation Programme was launched in 1985 with the target of Universal Child Immunisation by 1990 in pursuance of achieving 'Health for All' by 2000 A.D. The State's achievement is hundred per cent coverage of pregnant women with T.T., Immunisation and over 90 per cent of Infants with DPT, Polio and BCG. But antimeasles coverage is only less than 75 percent. A notable factor is that because of the wide net work of infrastructure, awareness and access to facilities more than 90 of the estimated 6 lakhs deliveries in a year are Institutionalised and this facilitates the high rate of attainment of Immunisation Programme.

Health Care Infrastructure (DHS)

9.23 The health care facilities under allopathy in Government sector consisted of 1226 institutions with 38726 beds in 1991 as against 1199 institutions with 38223 in 1990. A further analysis would show that there were 140 hospitals with 27539 beds, 908 Primary Health Centres including MCH, units with 4714 beds, 22 T.B. centres/clinics with 476 beds, 15 leprosy control units, 54 community health centres with 3159 beds and 51 dispensaries with 159 beds during 1991. The relevant data are given in Table 9.12. The number of primary health centres increased from 883 in 1990 to 908 in 1991. Over and above the institutional and man power infrastructure available in the Government sector, a Survey carried out by the Department of Economics and Statistics revealed that there were 3565 private allopathic medical institutions with over 50,000 beds in the state. The spatial distribution of medical institutions and beds are given in Table 9.13. The number of beds per lakh of population has increased from 128 in 1990 to 133 in 1991. The expansion of rural health infrastructure during the last six years is given in Table 9.14.

TABLE 9.12
Number of Medical Institutions and Beds under Allopathy
in Kerala—1981 to 1991

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)
1981	968	100	32447	100	127
1982	991	102	32532	100	126
1983	1005	104	32880	101	125
1984	1009	104	33380	103	124
1985	1014	105	33529	103	124
1986	1015	105	35744	110	128
1987	1038	107	36404	112	128
1988	1066	110	36668	113	127
1989	1126	116	37100	117	126
1990	1199	124	38223	118	128
1991	1226	127	38726	119	133

Source: D. H. S.
*Beds under DHS only

TABLE 9.13

Spatial Distribution of Medical Institutions, Beds and Patients Treated Under Allopathy (District-wise)

District (1)	No. of Medical Institutions*		No. of Beds		No. of patients Treated 1991	
	1990 (2)	1991 (3)	1990 (4)	1991 (5)	In-patients (6)	Out patients (7)
1. Thiruvananthapuram	107	109	6323	6343	164341	2909582
2. Kollam	81	83	1853	1903	114919	2168788
3. Alappuzha	80	82	3785	3811	124112	2564482
4. Pathanamthitta	55	56	929	939	35303	994851
5. Kottayam	74	76	3006	3046	96571	2289321
6. Idukki	58	62	609	715	122019	672244
7. Ernakulam	109	113	3459	3600	132337	3050026
8. Thrissur	110	111	3771	3821	117380	2451651
9. Palakkad	100	102	2081	2081	162183	1978104
10. Malappuram	111	113	1826	1836	109597	2426858
11. Kozhikode	85	87	4239	4383	77597	1810246
12. Wayanad	40	41	590	590	19713	322012
13. Kannoor	94	96	2435	2441	115337	1618285
14. Kasaragod	59	59	648	648	35692	686858
Kerala	1163	1190	35554	36057	1427101	25943308

*Excluding grant-in-aid institution

TABLE 9.14

Rural Health Infrastructure from 1986-1991

Year (1)	Primary Health Centres including MCH Centres		Community Health Centres	
	No. (2)	Beds (3)	No. (4)	Beds (5)
1986	299	2842	..	..
1987	444	3404	..	..
1988	577	3274	29	2226
1989	740	3686	29	2292
1990	883	4480	54	3129
1991	908	4714	54	3159

Source.—DHS.

Patients Treated

9.24 During the year under review a total number of 1,741,950 inpatients and 28,142,461 outpatients were treated in allopathic medical institutions including medical college hospitals. The relevant data are furnished in Table 9.15. The statement showing the number of attacks and death under allopathy due to different principal diseases during 1990 and 1991 is given in Appendix 9.12.

Medical Education

9.25 There are 5 medical colleges in the State at Thiruvananthapuram, Kottayam, Alappuzha, Thrissur and Kozhikode, 2 Dental Colleges at Thiruvananthapuram and Kozhikode and 3 Nursing Colleges at Thiruvananthapuram, Kottayam and Kozhikode with a total intake of 700 students for MBBS, 70 students for BDS, 28 students for B.Pharm, 24 students for B.Sc. (MLT) and 75 students for B.Sc. Nursing. There are about 411 seats for various post graduate degree, diploma, Super Speciality courses and 585 seats for paramedical courses in the medical colleges. Details of annual intake of students for various courses in the Medical colleges are give in Table 9.16 and 9.17.

TABLE 9.15

Statement showing the patients treated in 1991

	Inpatients	Outpatients
1. Health care institutions (DHS)	25,943,308	1,427,101
2. Medical Colleges		
(i) Thiruvananthapuram Medical College	511,486	104,225
(ii) Kozhikode Medical College	477,982	88,516
(iii) Kottayam	697,908	48,770
(iv) Alappuzha	398,627	39,393
(v) Thrissur	113,150	33,945
Total	28,142,461	1,741,950

Nursing Education

9.26 Medical Colleges at Thiruvananthapuram, Kottayam and Kozhikode have Nursing Colleges attached to them. Twenty five students are admitted in each of these colleges for B.Sc. Nursing. M.Sc. Nursing Course is being conducted only in Nursing College, Thiruvananthapuram with annual intake of 4 students. Also certificate course in general nursing is being conducted at Thiruvananthapuram and Kozhikode. The

Directorate of Health Services and approved private nursing schools also conduct nurses training courses. The annual intake in the certificate course is 1545 of which 1150 are enrolled in private nursing schools. A Junior Public Health Nursing Course of 18 months duration is also conducted by both Government and private nursing schools with an annual intake of 515 and 476 respectively. The annual admission for various nursing courses in different categories is given in Table 9.18.

TABLE 9.16

Degree Courses conducted in the Medical Colleges with annual enrolment of students

Courses	No. of students in Medical Colleges					Total
	Thiruvananthapuram	Kozhikode	Kottayam	Alappuzha	Thrissur	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
M. B. B. S.	200	200	100	100	100	700
B. D. S.	40	30	..	..	..	70
B. Pharm	28	..	..	..	..	28
B. Sc. (Nursing)	25	25	25	..	..	75
B. Sc. (M. L. T.)	24	..	..	..	..	24
Total	317	255	125	100	100	897

TABLE 9.17

Post Graduate Degree|Diploma|Superspeciality Courses in the Medical Colleges

Name of Course	No. of seats in Medical Colleges					
	Thiruvananthapuram	Kozhikode	Kottayam	Alappuzha	Thrissur	
(1)	(2)	(3)	(4)	(5)	(6)	
<i>Diploma Courses</i>						
1. Diploma in Anaesthesia		8	6	6	..	..
2. Diploma in Child Health		6	12	6]	..	..
3. Diploma in Clinical Pathology		3	6	..	..	..
4. Diploma in Dermatology and Venereology		..	2	..	..	..
5. Diploma in Larynology & Otology		8	6	2	..	..
6. D. M. R. D.		2	2	..	..	..
7. D. M. R. T.		2	2	..	..	..
8. Diploma in obstetrics & Gynaecology		12	12	9	..	..
9. Diploma in Ophthalmology		3	6	4	..	..
10. Diploma in Orthopaedic Surgery		8	6	6	..	..
11. Diploma in Physical Medicine and Rehabilitation		4	..	..	..	..
12. Diploma in Psychiatric Medicine		6	..	..	..	..
13. Diploma in Public Health		12	..	..	..	..
14. D. T. C. D.		2	2	..	..	..
Total		76	62	33	..	..

(1)	(2)	(3)	(4)	(5)	(6)
<i>Past Graduate Degree</i>					
1. M. D. Anaesthesia	4	1	2	..	..
2. M. D. Biochemistry	2	2	..	..	..
3. M. D. Forensic Medicine	2	2	..	..	..
4. M. D. Dermatology & Venereology	3	4	3	..	..
5. M. D. General Medicine	13	12	7	2	..
6. M. D. Microbiology	2	2	..	..	..
7. M. D. Obstetrics & Gynaecology	8	8	4	..	..
8. M. D. Pathology	6	2	3	..	..
9. M. D. Pharmacology	4	2	..	..	..
10. M. D. Physiology	2	3	2	..	..
11. M. D. Paediatrics	6	5	3	..	..
12. M. D. Psychiatry	1	2	..	..	..
13. M. D. Radiodiagnosis	2	..	..	..	..
14. M. D. Radiotherapy	2	..	..	..	..
15. M. D. Community Medicine	3	2	2	..	..
16. M. D. T. B. & Respiratory Diseases	2	2	..	..	..
17. M. S. Anatomy	2	2	2	..	..
18. M. S. E. N. T.	2	2	2	..	..
19. M. S. General Surgery	20	12	8	2	..
20. M. S. Orthopaedics	4	4	3	..	..
21. M. S. Ophthalmology	4	4	2	..	..
22. M. D. Physical Medicine	2	..	..	..	..
Total	96	73	43	4	..
<i>Superspeciality Courses</i>					
1. Mch. Paediatric Surgery	2	2	..	..	..
2. Mch. Plastic Surgery	2	2	1	..	..
3. Mch. Geni to Urinary surgery	2	2	1	..	..
4. Mch. Thoracic Surgery	2	2	..	..	..
5. Mch. Neurosurgery	2	..	..	..	..
6. D. M. Gastroenterology	1	1	..	..	..
7. D. M. Neurology	1	..	..	..	..
8. D. M. Cardiology	2	1	..	..	..
9. D. M. Nephrology	..	1	..	..	..
Total	14	11	2	..	..

TABLE 9*18

Annual Admission for Nursing courses in different categories in 1991

Institutions	No. of Institutions	Total Annual intake
(1)	(2)	(3)
I. Integrated (General Nurses-cum-midwives) 3½ years course		
(a) Government Nursing Schools	12	335
(b) Private Nursing Schools	50	1150
(c) Medical college, Kozhikode	1	30
(d) Medical College, Thiruvananthapuram	1	30

	(1)	(2)	(3)
II. Junior Public Health Nurses (18 month course)			
(a) Government Nursing Schools		13	515
(b) Private Nursing Schools		18	476
III. B.Sc. Nursing (4 year course)			
(a) Medical college, Thiruvananthapuram		1	25
(b) Medical College, Kottayam		1	25
(c) Medical College, Kozhikode		1	25
IV. M.Sc. Nursing Medical College, Thiruvananthapuram			
		1	4

Indian Systems of Medicine

Ayurveda

9.27 There were 101 Ayurveda hospitals with 1979 beds and 506 dispensaries as on 31-3-1990. During the year 1991, 23 dispensaries were opened and 3 dispensaries are upgraded into 20 bedded hospitals. There were 106 hospitals and 529 dispensaries at the end of March 1991. The district-wise details of institutions, beds and the number of patients treated are given in Appendix 9.13. Number of Ayurveda Hospitals and Dispensaries from 1986 to 1991 are given in Table 9.19.

TABLE 9.19

Number of Ayurveda Hospitals and Dispensaries from 1986 to 1991

Year	Ayurveda Hospitals	Ayurveda Dispensaries
(1)	(2)	(3)
1986	94	473
1987	97	497
1988	101	496
1989	101	498
1990	101	506
1991	106	529

Ayurveda Education

9.28 There are three Government Ayurveda Colleges in the state with an annual intake of 50 in Thiruvananthapuram and 30 each in Thrissur and Kannur for BAMS Course. MD education is imparted only in the Ayurveda College, Thiruvananthapuram under which 24 students are admitted every year. Besides, there are three private Ayurveda Colleges at Kottakkal, Ollur and Shorannur. The details of the courses conducted in the Government Ayurveda Colleges together with the intake capacity are given in table 9.20.

TABLE 9.20

Courses offered and admission to the courses in the Ayurveda Colleges during 1991

Sl. No.	College	Nature of course Course	Annual intake of students		S.T. students	
			Total No. of students	S.C. students		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Government Ayurveda College, Thiruvananthapuram	BAMS	Degree	50	5	5
		MD (Ay.)	Post graduate Degree	24	2	2
2.	Government Ayurveda College, Thrissur	BAMS	Degree	30	1	..
3.	Government Ayurveda College Kannur	BAMS	Degree	30	1	..
Total				194	9	7

Homoeopathy

9.29 The homoeopathic hospitals increased from 26 with 780 beds in 1990 to 30 hospitals with 900 beds in 1991. Similarly, the dispensaries increased from 274 in 1990 to 312 in 1991. During the period under review, 38 homoeo dispensaries were started of which 26 were under general sector, 7 under S.C. P and 5 under TSP. The bed strength in the Government Homoeo Hospital Kurichi was enhanced from 105 to 125 during 1991. Two district offices were opened one at Idukki and the other at Malappuram during the year. The district-wise distribution of institutions, beds and patients treated under Homoeopathy is given in Appendix 9.14. The number of Homoeopathy Hospital and Dispensaries from 1986 to 1991 are given in Table 9.21.

TABLE 9.21

Number of Homoeo Hospitals and Dispensaries from 1986 to 1991

Year	Homoeo Hospitals	Homoeo Dispensaries
(1)	(2)	(3)
1986	24	227
1987	24	255
1988	24	255
1989	24	262
1990	26	274
1991	30	312

Homoeo Education

9.30 There are 5 homoeopathic colleges in the State of which 2 are in the Government sector and the remaining three are in the private sector. Enrolment of students in Degree and Diploma courses in these colleges is given in Table 9.22.

TABLE 9.22

Various courses and Annual Intake of students in Different Homoeopathy Colleges in Kerala 1991

Name of College	Course	Nature of Course (Degree/Diploma)	Annual Intake of students
(1)	(2)	(3)	(4)
Government			
1. Government Homoeo Medical College, Thiruvananthapuram	BHMS	Degree	50

	(1)	(2)	(3)	(4)
2. Government Homoeo Medical College, Kozhikode	BHMS	D-gree		50
Sub Total—Government	..	..		100
Private				
3. ANSS, Homoeo Medical College, Kurichy	BHMS	Degree Diploma		50
4. Dr. Padian Memorial Homoeo Medical College Ernakulam	„	Diploma		60
5. Sree Vidhyadiraja Homoeo Medical College, Nemom, Thiruvananthapuram	„	Diploma		65
Sub Total—Private	..	..		295
Total	..	..		395

TABLE 9.23

Medical and paramedical personnel in the Health Service Department

(Numbers)

Sl. No.	Category	1989	1990	1991
(1)	(2)	(3)	(4)	(5)
1. Medical Officers		2903	2796	2998
2. Dentists		64	69	71
3. Senior Nurses		1761	1733	1951
4. Junior Nurses		4486	4486	4086
5. Lady Health Inspectors		690	857	857
6. Pharmacists		1620	1679	1684
7. Junior P.H. Nurses (ANMS)		4484	5116	5296
8. Junior Health Inspectors		3381	4505	4505
9. Health Inspectors		845	845	845
Total		20234	22086	22293

TABLE 9.24

Details of Medical Practitioners in the State

Sl. No.	System	Class of Registration	Number in	
(1)	(2)	(3)	1990	1991
(1)	(2)	(3)	(4)	(5)
1. Modern Medicine		A	17741	18686
		B	635	635
		Listed	204	204
	Sub Total		18580	19525
2. Homocopathy		A	3700	3937
		B	1486	1486
		Listed	279	279
	Sub Total		5465	5702
3. Ayurveda		A	5732	5874
		B	6100	6100
		Listed	599	599
	Sub Total		12431	12573
4. Sidha		A	62	71
		B	1218	1218
		Listed	41	41
	Sub Total		1321	1334
5. Unani		A	1	1
		B	51	51
		Listed	5	5
	Sub Total		57	57
	Grand Total		37854	39191

TABLE 9.25

List of Registered Para-medical Practitioners

Sl. No.	Category	Numbers						
		1990			1991			
		Male	Female	Total	Male	Female	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1. Nurse		268	12734	13002	278	1303	13381	
2. Midwife		..	11683	11683	..	11683	11683	
3. Nurses & Midwives (Integrated)		..	11835	11835		13213	13213	
4. Auxilliary Nurse-Midwife		..	9181	9181		9892	9892	
5. Health Visitors		..	318	318	..	318	318	
	Grand Total		268	45751	16019	268	48209	48487

Family Welfare Programme

9.31 Kerala has signal achievements in the family welfare front. The health infrastructure established during the planned development period, high women literacy and voluntary participation from Mahilasamajams etc. have contributed to this. The policy of Government of India is to reduce Net Reproduction Rate (NRR) to one by 2000 AD. All the States and Union Territories have been characterised into three groups namely A, B and C. The Group A States are required to reach NRR-one by 1991-92. As Kerala comes under Group A this would mean that the State should achieve 60% couple protection rate during 1992. The couple protection rate now is 66 for Kerala as against 42 for all India.

9.32 The Family Welfare Programmes in Kerala are being carried out through a net work

of 946 Primary Health Centres and 5094 Sub Centres. The details are given in Table 9.26. The urban family welfare main centres are the postpartum units attached to the hospitals under the all India postpartum programmes. There were 83 such centres of which 5 were private institutions. Out of the remaining 78 centres 4 are A type of main centres attached to Medical Colleges, 9 are A type centres attached to non teaching institutions and 65 are those at the sub division level attached to Taluk hospitals. Besides, there are two Regional Family Welfare and Health Training Centres, two Lady Health Visitors Training Centres and 7 ANM Training Schools. The targets and achievements under family welfare programme are given in Table 9.27. The expenditure during 1990 amounted to Rs. 42.79 crores. The relevant data are given in Table 9.28.

TABLE 9.26

Number of Family Welfare Centres—1991

Sl. No.	District	Urban			Rural		
		Main centres	Sub-Centres	Total	Main Centres	Sub Centres	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Thiruvananthapuram	10	..	10	81	455	536
2.	Kollam	5	..	5	67	449	516
3.	Alapuzha	5	..	5	48	260	308
4.	Pathanamthitta	9	..	9	66	368	434
5.	Kottayam	6	..	6	60	359	419
6.	Idukki	3	..	3	56	231	287
7.	Ernakulam	10	..	10	83	351	434
8.	Thrissur	8	..	8	82	492	574
9.	Palakkad	6	..	6	82	471	553
10.	Malappuram	7	..	7	94	508	602
11.	Kozhikode	4	..	4	72	389	461
12.	Wayanad	3	..	3	32	204	236
13.	Kannur	5	..	5	74	352	426
14.	Kasaragode	2	..	2	49	205	254
Kerala		83	..	83	946	5094	6040

TABLE 9.27

Target and Achievement of Family Welfare Programme

Item	Unit	1990		1991	
		Target	Achievement	Target	Achievement
(1)	(2)	(3)	(4)	(5)	(6)
1. Family Welfare Programme					
(a) Sterilisation (Vasectomy Tubectomy)	Nos.	180000	208537	200000	190547
(b) I. U. D. Insertion	..	115000	125324	150000	119747
(c) C. C. Users	..	271000	292139	297200	305888
(d) O. P. Users	..	34500	43427	50300	40651
(e) P. H. Centres	..	921	..	946	..
(f) Sub Centres	..	5094	..	5094	..

(1)	(2)	(3)	(4)	(5)	(6)
2. National T. B. control programme					
(a) No. of T. B. cases detected persons	"	45000	34829	45000	33129
(b) No. of sputum examined	"	105400	55771	107400	52759
3. National Leprosy Eradication Programme					
(a) No. of new case recorded	"	6000	6797	6000	7271
(b) No. of cases brought under treatment	"	6000	6147	6000	6242
(c) No. of cases detected	"	7000	9569	9000	10052
4. National programme for control of Blindness					
(a) No. of cataract operation	persons	20000	19083	20000	18826
(b) " other operation	"	Nil	80000	Nil	80500
5. M. C. H. Programme					
(a) Immunisation programme					
(i) DPT*	Children	603000	584499	581837	590814
(ii) Polio*	"	603000	597886	581837	607516
(iii) BCG*	"	603000	646072	581837	656370
(iv) Measles*	"	603000	491794	581837	543196
(v) DT	No.	400000	281165	532856	247646
(vi) T.T. (Pregnant women)	No.	621000	638582	623731	643001
(b) Prophylaxis against Nutritional anaemia					
(i) Women		680000	819616	680000	579047
(ii) Children		691000	947160	691000	689803
G. Blindness due to Vitamin Deficiency		1600000	1145125	1600000	1211236

*Target and achievement of children below one year only
Source: Directorate of Health Services.

Government Expenditure on Health

9.33 The expenditure on medical and public health increased from Rs. 13.6 crores in 1972 to Rs. 48 crores in 1981 which further increased to Rs. 98.5 crores in 1988 and to Rs. 190 crores in 1991. Details of Plan and Non-plan expenditure on medical and public health are given in Table 9.29. The per capita expenditure increased from Rs. 19 in 1981 to Rs. 92 in 1991 thus showing an increase of Rs. over 400 per cent. The relevant data are given in Table 9.30. Though the overall expenditure and per capita expenditure increased, a close look at the pattern of expenditure would reveal that more than 60 per cent of the expenditure has gone on staff cost and the remaining expenditure towards patient care, construction, maintenance and purchase of equipment and transport. It could be seen that next to staff cost and patients care, health transport has emerged as the major expenditure commitments in the health sector. Allopathy system accumulated for about 87 per cent of the expenditure while Ayurveda and homoeopathy systems shared 9.5 per cent and 3.5 per cent respectively.

TABLE 9.28

Expenditure on Family Welfare Programme

Year	Amount (Rs. lakhs.)
(1)	(2)
1981	590.20
1982	687.08
1983	785.59
1984	1176.47
1985	1930.99
1986	2510.22
1987	3130.33
1988	3370.22
1989	3157.83
1990	4279.08
1991 (R.E.)	7692.05

Source: Budget documents

TABLE 9.29

Plan and Non-plan Expenditure on Medical and Public Health in Kerala

(Rs. lakhs)			
Year	Plan	Non-plan	Total
(1)	(2)	(3)	(4)
1972	162.79	1199.22	1362.10
1973	209.02	1351.17	1560.19
1974	243.59	1394.82	1638.41
1975	180.46	2022.17	2202.63
1976	230.71	2527.38	2758.09
1977	236.87	2678.67	2915.54
1978	306.96	2867.83	3174.79
1979	525.66	3051.48	3577.14
1980	472.51	3647.19	4119.70
1981	651.38	4229.27	4880.65
1982	905.97	4936.88	5842.85
1983	880.10	5058.12	5938.22
1984	1044.41	5935.02	6979.43
1985	1074.00	6354.81	7428.31
1986	1102.50	8754.37	9856.87
1987	1799.34	9576.09	11375.93
1988	1532.08	10207.12	11739.20
1989	1802.43	11408.10	13210.53
1990	2040.33	12910.55	14950.88
1991 (RE)	2128.27	16950.91	19079.18

Source: Budget Documents

TABLE 9.30

Per capita Expenditure on Medical and Public Health

Year	Population (Lakhs)	Expenditure on Health including Family Welfare (Rs. lakhs)	Index of growth	Expenditure per head	Index of growth
(1)	(2)	(3)	(4)	(5)	(6)
1981	253.84	4857.25	100	19.13	100
1982	254.03	5811.56	120	22.88	119
1983	259.49	5907.12	122	22.76	119
1984	268.47	6946.80	143	25.88	135
1985	270.05	8841.13	182	32.73	170
1986	274.05	11082.09	228	40.44	211
1987	275.06	13789.93	284	50.13	262
1988	288.39	15109.42	311	52.39	274
1989	293.58	16368.36	337	55.75	291
1990	298.87*	19229.96	396	64.34	336
1991	290.11	26771.29**	551	92.27	432

*Projected population of Kerala

**Revised Estimates

Water supply and sanitation

9.34 At present 37 per cent of the rural population and 70 per cent of the urban population are covered with protected water supply in the State. In the three city corporations the coverage is nearly 90 per cent.

Rural Water Supply

9.35 There were 1219 villages in the State as per 1981 census. In 1985, 1196 villages were identified as problem villages. Of these 42 villages were fully covered and the rest were partially covered as on 31-12-1991. The district-wise number of villages covered with protected water supply and the total population benefited are provided in Table-9.31.

TABLE 9.31

District-wise number of Villages covered with protected Water Supply and Population benefited as on 31-3-1991

Sl. No.	District	No. of Villages	Population benefited in '000s.
(1)	(2)	(3)	(4)
1.	Thiruvananthapuram	86	758
2.	Kollam	68	807
3.	Pathanamthitta	38	261
4.	Alappuzha	88	752
5.	Kottayam	74	667
6.	Idukki	42	310
7.	Ernakulam	79	675
8.	Thrissur	213	856
9.	Palakkad	146	1066
10.	Malappuram	115	590
11.	Kozhikode	89	373
12.	Wayanad	31	150
13.	Kannur	88	215
14.	Kasaragod	62	256
Total		1219	7736

9.36 The Village wise distribution and percentage of population provided with safe drinking water as on 31-3-1991 is given below:

Below 10%	280 villages
Between 10% and 25%	274 "
Between 25% and 50%	263 "
Between 50% and 75%	224 "
Between 75% and 100%	178 "
Total	1219 villages

9.37 There were 1509 rural water supply schemes in operation during 1990-91 and 69 were completed during the year. The district-wise details on the number of schemes in operation and schemes completed during 1990-91 are presented in Table 9.32

TABLE 9.32

Number of Rural Water Supply Schemes in operation and schemes completed during 1990-91

Sl. No.	District	No. of Schemes in operation during 1990-91	No. of Schemes completed during 1990-91
(1)	(2)	(3)	(4)
1.	Thiruvananthapuram	98	10
2.	Kollam	75	8
3.	Pathanamthitta	43	1
4.	Alappuzha	88	1
5.	Kottayam	110	2
6.	Idukki	115	1
7.	Ernakulam	131	7
8.	Thrissur	179	3
9.	Palakkad	163	..
10.	Malappuram	151	7
11.	Kozhikode	118	17
12.	Wayanad	49	9
13.	Kannur	112	2
14.	Kasaragod	77	1
Total		1509	69

Urban Water Supply

9.38 As per the 1981 census there were 106 towns in the State of which 6 were class I towns, 8 class II towns 64 class III towns, 21 class IV towns, 6 class V towns and 1 class VI town. According to 1991 census, the census towns increased to 132 but the classification details are not available for the 1991 census. Even though all these cities and towns have been covered with protected water supply schemes, only three corporations, thirtyseven municipal towns or townships have been provided with water supply systems of urban standards. The present status of coverage of all the 106 census towns is given below.

Below 10 lpcd	7 towns
Between 10 lpcd and 25 lpcd	16 "
Between 25 lpcd and 50 lpcd	38 "
Between 50 lpcd and 75 lpcd	20 "
Between 75 lpcd and 100 lpcd	7 "
100 lpcd and above	18 "
Total	106 towns

Source of funds

9.39 The water supply and sanitation schemes have been implemented with assistance from Government of India, World Bank, bilateral agencies and LIC in addition to state funds. Assistance from Government of India is utilised for the implementation of the Accelerated Rural Water Supply Programme. The flow of funds from the external agencies and Government of India is presented in Table 9.33

TABLE 9.33

Flow of Funds from LIC, Government of India and External Agencies

(Rs. lakhs)

Year	LIC	External agencies	Government of India
(1)	(2)	(3)	(4)
1985-86	543.61	342.36	1085.00
1986-87	600.00	411.63	1213.00
1987-88	660.00	1023.47	1398.32
1988-89	861.00	931.29	920.75
1989-90	947.00	734.49	890.00
1990-91	1000.00	954.69	1076.00

9.40 There are seven rural water supply schemes and two sanitation schemes under implementation with World Bank assistance. The total estimated cost (revised) for these schemes amount to Rs. 91.69 crores. Of these six water supply schemes are expected to be completed during 1992-93 and the remaining will be completed by 1993-94. These seven schemes when completed would benefit a population of 13.54 lakhs. Eleven rural water supply schemes have been assisted by bilateral agencies such as Netherlands Government and DANIDA. The revised cost for these schemes amounts to Rs. 156.56 crores. These schemes except one will be completed by 1993-94. The revised cost for these schemes amounts to Rs. 156.56 crores. On completion of these schemes a population of 19.58 lakhs would be benefited. There are 12 water supply schemes under implementation in the urban areas started with L.I.C assistance. The revised cost of these schemes amounts to Rs. 85.11 crores. The progress of work on these schemes vary between 35 per cent and 90 per cent. On completion of these schemes a population of 14.78 lakhs would be benefited.

9.41 The revenue collection of the Kerala Water Authority since 1984-85 is given below:

Year	Revenue collection (Rs. in lakhs)
(1)	(2)
1984-85	173
1985-86	315
1986-87	629
1987-88	853
1988-89	915
1989-90	1504
1990-91	1684

Expenditure

9.42 The total expenditure, Plan and Non-plan, for water supply and sanitation schemes in the State implemented by the Kerala Water Authority, the Rural Development Department and the Ground Water Department is given in table 9.34

TABLE 9.34

Plan and Non-plan expenditure on Water Supply and Sanitation Schemes

(Rs. crores)

Year	Plan Expenditure	Non plan Expenditure	Total
(1)	(2)	(3)	(4)
1985-86	15.94	7.80	23.74
1986-87	39.25	11.54	50.79
1987-88	29.83	10.92	40.85
1988-89	62.21	22.26	84.47
1989-90	51.99	24.23	76.22
1990-91 (RE)	44.50	49.16	93.66

*Housing**Present Situation*

9.43 According to 1991 Census (Provisional figures) there were 52.1 lakh residential buildings and 54 lakh households in Kerala. The existing demand for houses at the beginning of 1991 was about 11 lakhs as worked out below.

Numerical Shortage during 1991	— 1.90 lakhs.
No. of substandard huts which are not fit for human dwelling	— 6.00 lakhs
No. required to be demolished and reconstructed	— 3.00 lakhs.
	10.90 lakhs.

9.44 It is estimated that during the period between 1991 to 2000 A.D. some 9 lakh new houses will have to be constructed for accommodating the new families as a result of the increase in population. When the existing shortage is added to this, the total requirement of new houses comes to about 20 lakhs by 2000 A.D. For solving the housing problem fully, 2 lakh houses would have to be constructed annually.

9.45 There has been a shift in approach in the housing sector and the major effort of the government is directed towards housing scheme for the economically weaker sections. A notable feature is that institutional finances has come to play an increasing role in housing development finance. The major public agencies in Kerala raised more than Rs. 100 crores during 1991.

9.46 At present more than 20 agencies including the government departments and autonomous bodies are implementing housing programmes in the State. Kerala State Housing Board, Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes and the Kerala State Co-operative Housing Federation are the important autonomous organisations that undertake housing programmes.

9.47 Though Kerala State Housing Board is implementing 9 schemes, the most important among them are the Public Housing Scheme and the Cash Loan Scheme. During 1990-91 the Housing Board has constructed 212 buildings under Public Housing Scheme and 258 flats under Rental Housing Scheme. Besides 2308 loans were given under the Cash Loan Scheme. Of this, 1872 loans were given to Low Income Groups, whose monthly income was between Rs. 701-1500, and the rate of interest charged on them was only 9 per cent. During this period Housing Board received Rs. 6097 lakhs from HUDCO for meeting the loan component of the various housing schemes including Rehabilitation Housing Scheme.

9.48 The Kerala State Development Corporation for SC/ST is at present implementing mainly the housing scheme started during 1988. According to the scheme each beneficiary is to get Rs. 2,500 as subsidy and Rs. 4,500 as loan for the construction of a house costing Rs. 8,500. The beneficiary's contribution has to be Rs. 1,500 in the form of labour, material or cash. During 1990-91 the Corporation gave financial assistance for the construction of 1249 houses. On 23-3-1991 government have approved Ambedkar Rural Housing Scheme for SC/ST with a target of 20000 houses. The unit cost is Rs. 12,000. The beneficiary will be given Rs. 8000 as loan, Rs. 3000 as subsidy and the remaining Rs. 1,000 will be his contribution in the form of labour, material or cash.

9.49 The Kerala State Co-operative Housing Federation is implementing its housing programmes through the 207 primary housing societies affiliated to it. During 1990-91 the Federation has given financial assistance for the construction of 4577 houses. The Federation raises funds through the issue of shares and debentures and borrowing from HUDCO and LIC. Till 31-3-1991 the Federation has disbursed a sum of Rs. 14,114 lakhs as loan and the total number of houses completed was 41515.

9.50 The allotment of house sites to landless rural labourers and the rehabilitation housing are the most important housing schemes implemented by the Board of Revenue. During 1990-91, 2634 house sites were distributed to landless rural workers, including 876 from SC/ST incurring an expenditure of Rs. 196.13 lakhs. Besides 396 families were also given house construction assistance, of which 58 families were from SC/ST. The necessary details are given in table 9.35 Under Rehabilitation Housing Scheme 29294 houses were constructed during 1990-91.

9.51 Government employees are given house building advance for the purposes of construction/completion/extension and repair of residential buildings. The total budget provision for the scheme during 1990-91 including the sum of Rs. 1 crore additionally provided for clearing the pending applications was Rs. 9 crores. With this amount 2401 applications for house building advance were sanctioned during 1990-91 as against 2090 sanctioned during the previous year.

9.52 During the year under reference the Scheduled Caste Development Department has given financial assistance for the construction of 818 houses incurring an expenditure of Rs. 66.68 lakhs. During this period the Scheduled Tribes Development Department has

TABLE 9.35

Housing Schemes (MNP) Implemented by the Board of Revenue

Year	Allotment of sites		Expenditure (Rs.lakhs)	Construction of houses	
	No. of sites allotted	of which SC/ST		No. of persons assisted	SC/ST
(1)	(2)	(3)	(4)	(5)	(6)
1985-86	5151	2341	111.36	888	335
1986-87	5517	2321	154.00	1043	407
1987-88	1869	883	95.86	366	139
1988-89	2903	1291	150.92	852	222
1989-90	2179	947	149.87	335	72
1990-91	2634	876	196.15	396	58

made available financial assistance for the construction of 404 houses. Tribal housing is hundred per cent subsidised scheme and the construction work is undertaken by the State Public Works Department.

9.53 Under Jawahar Rozgar Yojana, the Rural Development Department has constructed 14255 houses during 1990-91 for the benefit of SC/ST families below poverty line. Before the introduction of Jawahar Rozgar Yojana during 1989, these housing programmes were implemented under RLEGP and NREP.

9.54 With a view to improving the housing condition of the fishermen the Matsyafed has also extended financial assistance for the construction of 1254 houses during 1990-91. The expenditure incurred for the construction of the above houses was Rs. 76 lakhs. In addition 957 houses were constructed during the year for the benefit of the fishermen with financial assistance from the National Fishermen Welfare Fund. Relevant data on the progress made by the housing sector is given in Table 9.36.

TABLE-9.36

Achievement in Housing—Major Schemes

	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Provision of House-sites to rural landless workers	4841	3022	5517	1869	2903	2179	2634
2. Huts/Houses for rural workers	1234	700	974	366	852	335	396
3. Village Housing Project	138	..	..	..	..	29	52
4. Low Income Group Housing	248	184	..	..	..	28	52
5. Middle Income Group Housing	197	113	59	22	27	53	68
6. Co-operative Housing Scheme for Economically Weaker Sections	11600	2427	2625	..	..	..	..
7. Subsidised aided self help housing scheme with the Co-operation of Voluntary Agencies	12960	12125	2090	..	..	..	..
8. Rental Housing Scheme	..	152	..	..	11	78	258
9. Public Housing Scheme	152	528	613	544	488	172	216
10. Kudikidappukar Housing	1201	743	212	..	..	..	..
11. Kerala State Development Corporation for SC/ST	1033	3870	2215	1916	675	1283	1181
12. Scheduled Tribe Development Department	541	590	90	350	377	286	404
13. Scheduled Caste Development Department	264	313	159	1166	957	1131	818
14. Fishermen Housing	1098	17019	2290	3870	6143	869	2211
15. Kerala State Co-operative Housing Federation	4700	4869	8387	8658	6716	3502	4577
16. Rehabilitation Housing Scheme *	..	..	86837	9840	22062	6497	29611
17. NREP	1570	2801	9544	7560	9451	..	..
18. RLEGP	2045	4802	14388	11040	8554	..	..
19. Jawahar Rozgar Yojana	..	..	..	..	..	22932	14225
Total	43822	53758	136500	47201	59216	39374	56703

* Revised figures are given for the first three years. The data given during the previous issues were based on the number of loan applications sanctioned.

Urban Development

9.53 As per 1991 Census, Kerala's urban population is 7.8 million which is 27 per cent of the total population of 290.11 lakhs in the state. There are 197 towns according to 1991 census of which 65 are statutory towns (3 corporations, 59 municipalities, one cantonment and 2 townships) and 132 Census towns. The various urban development schemes in the State are implemented by the departments of Town Planning, Municipal Administration, three City Corporations, eleven Development Authorities and 59 municipalities.

9.54 The Kerala Urban Development Finance Corporation has so far disbursed Rs. 38 crores and assisted 474 schemes of various urban local bodies. During the year under review it has assisted 39 schemes involving Rs. 4 crores. Under environmental improvement of slums about 2 lakh persons could be covered so far out of the estimated 4.5 lakh slum population in the State. During 1989-90 18512 persons and in 1991 26418 slum dwellers were covered.

9.55 The Nehru Rozgar yojana was introduced from 1989-90, for generation of employment opportunities to those living below poverty line and the major achievements are given below:

I. Urban Micro Enterprises

(i) Amount sanctioned during 1989-90 and 1990-91 (Both Central and State Share)	Rs. 311.74 lakh
(ii) Amount of Subsidy sanctioned to beneficiaries	Rs. 129.38 "
(iii) Amount of loan disbursed to the beneficiaries by the Banks	Rs. 388.14 "
(iv) No. of Beneficiaries	8852 persons
(v) No. of units started functioning	5329 "

II. Training under micro enterprises

(i) Amount sanctioned during 1989-90 and 1990-91	Rs. 29.46 lakhs
(ii) Amount spent on training	Rs. 22.89 "
(iii) No. of persons completed training	1846

III. Urban Wage Employment

(i) Amount sanctioned during 1989-90 and 1990-91 (Both Central and State Share)	Rs. 377.78 lakhs
(ii) Amount of expenditure incurred	Rs. 264.94 "
(iii) No. of Public Works completed	1442
(iv) No. of ongoing Public Works	532
(v) No. of mandays of work generated	4,82,260

IV. Housing and Shelter Upgradation

(i) Total amount of subsidy sanctioned	Rs. 220.49 lakhs
(ii) No. of Schemes approved by HUDCO	4
(iii) No. of dwelling units involved in the approved schemes	20329
(iv) No. of dwelling units upgraded	400
(v) No. of dwelling units under upgradation	9929

9.56 The Department of Town Planning is mainly engaged in the preparation of development plans for urban and rural areas. During 1990-91 the department prepared 12 town planning schemes, 10 draft schemes prepared and forwarded to local bodies and 3 project reports for the integrated development of small and medium towns. Besides, it prepared 115 lay out plans for local bodies, approved 143 factory sites and cleared 179 building plans.

9.57 There are eleven (11) Development Authorities constituted in the State for promoting balanced urban development. The major Development Authorities are Trivandrum, Calicut, and Greater Cochin. The HUDCO loans and market borrowing are the major sources of funds for the Authorities. During 1985-91 the GCDA raised about Rs. 28 crores from HUDCO and Banks for its various activities. The Calicut Development Authority has also implemented schemes under housing/Urban renewal, market complexes etc. During 1985-91 the Authority has raised about Rs. 7 crores from institutional sources for its various activities. The Trivandrum Development Authority has raised about Rs. 120 lakhs from institutional sources during 1991 for implementing its various programmes. It has assisted construction of 600 houses during 1991.

Labour and Employment

9.58 There are 28 Government Industrial Training Institutes in the State with a seat strength of 11238 trainees. Out of these eight are Women ITIs. In the private sector there are 274 Industrial Training Centres with a seat strength of about 34116 trainees. The number of trainees in Government ITIs increased from 10536 in 1990 to 11238 in 1991 thus making an increase of 7 per cent. The Government ITIs impart training in 15 trades with one year duration and 16 trades with two year duration. District wise number and seat strength in Government ITIs and private ITCs in the State are given in Table 9.37.

9.59 The Government ITIs have imparted training to 230 students sponsored by the Kerala Labour Welfare Fund Board. Apprenticeship training was given to 4501 apprentices through 8 Related Instruction Centres. The Plastic processing operator trade was started in ITI Kollam. There is one Advanced Vocational Training System at Kalamassery which imparts higher level vocational training in special areas of technology. The Regional Vocational Training Institute for women at Kazhakkuttom and model ITI at Kozhikode give modular pattern of training. 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. The major project of modernising ITIs—Skill Development Programme at an estimated cost of Rs. 17.9 crores is under implementation from 1988-89.

Trade-wise strength in ITIs

9.60 An analysis of the courses in ITIs would show that out of 11238 trainees in the Government ITIs 28% are undergoing one year course and 72% in two year course. In the case of private ITCs out of 34116 trainees 9% are in one year course and 91% in two year course. The relevant data are given in Table 9.37.

9.61 In Government ITIs a total of 3336 students were admitted under 16 trades in the two year course. Out of this the SC/ST students stood at 396 of which only 58 were girls. The relevant data are given in Table 9.38. The trade-wise intake in Private ITCs are given in Table 9.40 and Table 9.41.

9.62 In the All India Trade Test Conducted in July 1991, 21,217 trainees were appeared and 10,262 were passed. The percentage of pass was 48.2. As regards employment situation 71651 persons are in the live register with ITI qualifications.

9.63 As regards the employment sector there are District Employment Exchanges functioning in all the 14 Districts and one Professional and Executive Employment Exchange at Trivandrum. Besides a special Employment Exchange is functioning in Trivandrum for the benefit of physically handicapped. University Information and Guidance Bureaus are functioning at Trivandrum, Ernakulam, Trichur and Kozhikode. In addition to this there are 23 Town Employment Exchanges started in the State. The Live Register figures with the employment exchanges show that the number of registrants increased to 33.43 lakhs in 1991 from 31.03 lakhs in 1990.

TABLE 9.37

District - wise Number of Industrial Training Institutions and seat Strength in Kerala as on 31-12-1991.

Sl. No.	District	Number of Institutions		Total	Seat Strength		Total
		Government I.T.I.	Private I.T.C.		Government I.T.I.	Private I.T.C.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Thiruvananthapuram	5	44	49	2928	4050	6978
2.	Kollam	2	28	30	1016	4654	5670
3.	Pathanamthitta	1	28	29	176	3046	3222
4.	Alappuzha	2	35	37	854	5358	6212
5.	Kottayam	2	20	22	1028	3366	4394
6.	Idukki	1	5	6	224	528	752
7.	Ernakulam	2	43	45	880	6666	7546
8.	Thrisur	3	24	27	1068	2610	3678
9.	Palakkad	2	8	10	800	720	1520
10.	Malappuram	1	8	9	248	710	958
11.	Kozhikode	3	12	15	880	1178	2058
12.	Kannur	2	15	17	944	930	1874
13.	Wayanad	1	2	3	112	180	292
14.	Kasaragod	1	2	3	80	120	200
Total		28	274	302	11233	34116	45354

Source:—Directorate of Training

TABLE 9.38

Trade-wise Intake in Government ITIs during 1989-91

(Duration of Course—Two years)

Sl. No.	Trade	Number Admitted in 1989				
		Total	Boys	Total	Girls	Scheduled Caste Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Draftsman Mechanic	96	82	14	8	2
2.	Draftsman Civil	288	179	109	36	4
3.	Surveyor	80	42	38	6	2
4.	Fitter	576	576	..	60	3
5.	Turner	312	312	..	17	..
6.	Mechanist	288	288	..	10	2
7.	Mechanist R and AC	176	176	..	9	1

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
8. Instrument Mechanic			80	80	..	7		1
9. Watch and Clock Repair			48	..	48	4		Nil
10. Electrician			352	352	..	43		2
11. Wireman			368	368	..	71		7
12. Electroplater			16	16	..	3		Nil
13. Mechanist (Motor vehicle)			16	16	..	2		Nil
14. Mechanist (Radio and T.V.)			304	187	117	44		3
15. Electronics			336	201	135	47		2
16. Painter (General)			Nil	Nil	Nil	Nil		Nil
Total			3336	2875	461	367		29

Source:—Directorate of Training

TABLE 9.39
Trade-wise Intake in Government ITIs During 1990-91.

Sl. No.	Trade	Number admitted in 1990			Scheduled Castes	Scheduled Tribes
		Total	Boys	Girls		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Forger and Heat Treater	352	352	..	32	3
2.	Carpenter	384	375	9	33	2
3.	Dress Making	80	Nil	80	8	2
4.	Mechanic Diesel	144	144	Nil	24	4
5.	Mechanic Tractor	64	64	Nil	2	..
6.	Moulder	224	224	Nil	32	..
7.	Plumber	352	352	Nil	39	4
8.	Secretarial Practice	48	Nil	48	2	..
9.	Stenography (English)	400	178	222	44	4
10.	Stenography (Hindi)	32	Nil	32	2	..
11.	Sheet Metal Worker	272	204	68	35	..
12.	Upholstery	16	16	Nil	2	..
13.	Welding	696	696	Nil	102	10
14.	Data preparation and Computer Software	40	33	7	5	1
15.	Plastic Processing operator trade	32	32	Nil	2	..
Total		3136	2670	466	364	38

Source: Directorate of Training

TABLE 9.40
Trade-wise Intake in Private ITCs during 1989-91

(Duration of Course—Two years)

Sl. No.	Trade	Number admitted in 1989			Scheduled Caste Total	Scheduled Tribe Total
		Total	Boys	Girls		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Draftsman Mechanic	147	142	5	25	1
2.	Draftsman Civil	2769	2169	598	167	2
3.	Surveyor	36	31	5	Nil	Nil

4. Fitter	1851	1851	Nil	96	
5. Turner	55	55	Nil	4	..
6. Mechanist	14	14	Nil	..	
7. Mechanic R & AC	267	267	Nil	..	..
8. Instrument Mechanic	..	..	..	..	..
9. Watch and Clock Repair	..	..	..	..	..
10. Electricians	2253	2253	..	90	..
11. Wireman	158	158	..	6	..
12. Mechanic (M & V)	638	638	Nil	15	..
13. Mechanic (R & TV)	761	714	47	44	..
14. Electronic Mechanic	1146	1061	85	46	..
15. Painter (General)	Nil	Nil	Nil	..	..
16. Tool and Die maker	18	18	Nil	..	..
Total	10111	9371	740	493	3

Source: Directorate of Training

TABLE 9.41
Trade-wise Intake in Private ITCs during 1990-91

Sl. No.	Trade	Number admitted in 1990			Scheduled Castes	Scheduled Tribes
		Total	Boys	Girls		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Welder		233	233	..	8	..
2. Moulder	
3. Carpenter		18	18	..	18	..
4. Sheet Metal Worker		17	17	..	..	..
5. Forger and Heat Treater		9	9	..	..	..
6. Plumber		709	709	..	41	2
7. Upholstery	
8. Data preparation and Computer software		536	310	226	13	..
9. Mechanic (Tractor)	
10. Stenography (Hindi)		9	..	9	..	..
11. Dressmaking		9	..	9	..	..
12. Secretarial Practice		86	72	14	..	..
13. Mechanic (Diesel)		246	246	..	10	..
14. Stenography (English)		1121	513	603	49	..
15. Cutting and Tailoring		98	..	98	22	..
16. Hand Compositor and Proof Reading		21	13	8	3	..
17. Letter Press machine Winder		32	29	3	..	..
18. Book Binder		2	Nil	2	..	..
19. Hair and skin care		20	..	20	..	..
20. Photographer		9	9	Nil	..	..
Total		3175	2178	997	164	2

Source:—Directorate of Training

SPECIAL PROGRAMMES FOR THE WEAKER SECTIONS

Poverty alleviation had been one of the major objectives of our Five Year Plans. The important programmes taken up under the category include Integrated Rural Development Programme, (IRDP), National Rural Employment Programme (NREP), Rural Landless Employment Guarantee Programme (RLEGP), Jawahar Rozgar Yojana (JRY), Small and Marginal Farmer's Programme for agricultural development etc. The land reform measures initiated in early seventies and vigorously pursued in the subsequent years also helped in providing social security to the life and welfare of a large proportion of the economically weaker sections in Kerala.

10.2 Despite continuous efforts under the special programmes and the special attention given to Scheduled Castes and Scheduled Tribes under the SCP and TSP, it appears that the State could not make any appreciable dent into the problem of poverty alleviation and unemployment during the last decade. On the income side, the number of families below the cut off point of Rs. 3500 per family prescribed by the State for identifying the beneficiaries under IRDP has recorded only a marginal reduction of 2.1 lakhs from 15.7 lakhs in 1985-86 to 13.6 lakhs in 1990-91. In real terms the reduction in the number of families below this level would be nominal. Further more, the unemployment situation continues to be grim with an average availability of 147 days of employment for an year for a male agricultural worker (Survey of Directorate of Economics and Statistics—1983-84 while the land reform measures are laudable from the social security angle, it failed to make the desired impetus in the agricultural front for increasing agricultural production and thereby helping poverty alleviation. On the contrary, the average size of holding recorded further decline from 0.43 ha. in 1980-81 to 0.36 ha. in 1985-86. While the share of agriculture in the State income has declined from 53.42% in 1960-61 to 32.57% in 1989-90, it has not been accompanied by a proportionate displacement of agricultural work force from this sector. The number of agricultural labourers on the other hand has increased from 9.7 lakhs in 1960-61 to 19.17 lakhs in 1980-81. These trends highlight the need for pursuing the special programmes for weaker sections more vigorously during the years to come. Programme-wise details of achievement during the past are given below.

Integrated Rural Development Programme (IRDP)

10.3 IRDP is one of the important poverty alleviation programmes under implementation in Kerala with 50% central assistance from 1978-79 onwards. The programme was extended to all the C. D. Blocks in 1980-81. Under this scheme families living below the poverty line are identi-

fied and financial assistance by way of loan and subsidy are extended to take up economic activities capable of generating income levels above the poverty line. Year-wise number of families assisted under the programme during the last decade are given in Table 10.1.

TABLE 10.1

Families Assisted and subsidy disbursed under IRDP during 1980-81 to 1990-91

Year	No. of families assisted	Amount of subsidy given (Rs. lakhs)
(1)	(2)	(3)
1980-81	58992	331.46
1981-82	96832	610.67
1982-83	127798	1073.36
1983-84	120547	1255.47
1984-85	104816	1241.56
1985-86	71376	775.28
1986-87	143399	2010.98
1987-88	110684	1575.02
1988-89	87006	1539.53
1989-90	74150	1560.22
1990-91	60877	1702.09

Source: Rural Development Department

10.4 Identification of families really eligible for financial assistance is particularly important in a programme like IRDP which is directed against a targetted group. At the instance of Government of India, a comprehensive house to house survey was organised in 1990 to identify families in the income levels below Rs. 4800 per year who have not yet received any assistance from the programme. The survey was organised after giving wide publicity with the active involvement and co-operation of the Panchayats and voluntary agencies. The survey revealed that there are 13.61 lakh families with average annual income below the level of Rs. 3500 per annum prescribed by the State as the cut off line for treating the beneficiaries as poorest among the poor for assistance on a priority basis. Along with another 2.51 lakh families available in the range of Rs. 3500 to Rs. 4800 per annum the total number of families to be tackled in the years to come works out to 16.12 lakhs. The district-wise details of the IRDP survey are furnished in Table 10.2.

TABLE 10.2

District-wise details of the ILEP Household survey conducted during the period 16-7-1990 to 30-11-1990

Name of District	No. of families
(1)	(2)
1. Thiruvananthapuram	2,06,940
2. Kollam	1,61,822
3. Pathanamthitta	56,294
4. Alappuzha	1,33,215
5. Kottayam	94,455
6. Idukki	64,228
7. Ernakulam	1,19,424
8. Thrissur	1,51,445
9. Malappuram	1,51,278
10. Palakkad	1,32,679
11. Wayanad	42,835
12. Kozhikode	1,58,258
13. Kannur	85,833
14. Kasaragod	53,706
Total:	16,12,412

Source: Rural Development Department

TRYSEM

10.5 Trysem is a sub scheme under IRDP for imparting training to Rural Youth in the age range of 18 to 35 belonging to families below poverty line for taking up self employment ventures. The number of Youth trained during 1990-91 was 5657 against the target of 6040.

Jawahar Rozgar Yojana (JRY)

10.6 This programme was introduced in 1989-90 replacing NREP and RLEGP and is under implementation through the Panchayats. The expenditure is being shared between the Centre and the State in the ratio of 80:20. The main objective of the programme is creation of additional employment opportunities in rural areas through rural works which result in creation of durable productive community assets. The financial and physical achievements under JRY during 1989-90 and 1990-91 are furnished in Table 10.3.

Small and Marginal Farmer's Development Programme

10.7 Under this 50% Centrally Sponsored Scheme a total of 108972 small and marginal farmers were assisted for acquiring irrigation facilities and for increasing agricultural production during 1990-91 with a financial assistance of Rs. 343.75 lakhs. Details of physical achievement are given in Table 10.3.

Development of Women and Children in Rural Areas (DW CRA)

10.8 The programme provides opportunities to women in families below poverty line to increase their income through self employed activities and also supports the services required for such ventures. During 1990-91 the programme was under implementation in 6 districts viz., Wayanad, Palakkad, Idukki, Malappuram, Kannur and Kozhikode. Details of achievement under the programme are given in Table 10.3.

TABLE 10.3

Programme	Unit	1989-90 & 1990-91	
		1989-90	1990-91
(1)	(2)	(3)	(4)
I. D.W.C.R.A.			
(i) Women Groups Organised	No.	136	213
(ii) Women Groups functioning	"	149	(including back log) 162
II. N.R.E.P./JRY			
(i) Total Expenditure	Rs. in lakhs	6587.35	6819.92
(ii) Expenditure for SCs.	"	1677.20	2313.66
(iii) Expenditure for STs.	"	138.65	194.19
(iv) Mandays generated	Lakh Mandays	231.79	180.96
(v) Mandays generated for SCs.	"	74.37	58.96
(vi) Mandays generated for STs.	"	10.37	10.11
(vii) Mandays generated for Women	"	65.81	50.76

(1)	(2)	(3)	(4)
(vii) Mandays generated for Others	Lakh mandays	147.05	111.89
(ix) Feed grains utilised	MT	28345.69	5224.91
(x) No. of houses completed	No.	22932	14255
(xi) New roads constructed	Km.	3532.28	2144.42
(xii) Sanitary latrines completed	No.	7853	7622
(xiii) Drinking Water Wells constructed	No.	591	546
(xiv) Irrigational Canals	"	275	187
(xv) Area Planted under Social Forestry	Ha.	415.12	13.02
(xvi) No. of Seedlings distributed	lakhs	126.04	21.50
(xvii) Building Construction (Schools and other buildings)	No.	224	1992
III: Scheme for Small and Marginal Farmers			
(i) Amount of subsidy disbursed	Rs. in lakhs	272.90	343.75
(ii) Small and Marginal farmers assisted	No.	99070	108972
(iii) Of which SC farmers assisted	"	7803	7480
(iv) Of which ST farmers assisted	"	909	661
(v) SF/MF wells constructed	"	2798	2724
(vi) Do pumps distributed	"	11016	10985
(vii) Do Area benefited	Ha.	6892.02	14165.49
(viii) Do Pump house constructed	No.	1330	1746

Source: Rural Development Department

People's Action for Development (Kerala)

10.9 The main objective of PAD (K) is to encourage, promote and assist voluntary organisations in the identification, formulation and implementation of projects for rural development with financial assistance from CAPART (New Delhi). During the year 1990-91, 38 projects involving a total outlay of Rs. 111.44 lakhs have been forwarded to CAPART, New Delhi for financial assistance and 29 projects costing Rs. 59.03 lakhs were sanctioned.

Kerala Rural Development and Marketing Society (KERAMS)

10.10 The main objective of the society is to organize the sale of products of IRDP beneficiaries, Rural artisans, Mahila Samajams and voluntary organisations. Under the auspices of KERAMS, trade fairs were organised in Thiruvananthapuram, Ernakulam and Calicut during the Onam festival which indeed provided large outlets for the products manufactured by the IRDP beneficiaries. The details of year-wise turn over of KERAMS for the past 3 years is given below.

Year	Sale (Rs. in lakhs)
1989-90	6.55
1990-91	9.48
1991-92 upto 31-12-1991	14.04

Land to landless

10.11 Out of an area of 168428 acres of land declared as surplus under the land reform measures 93178 acres have been taken over by government of which 63045 acres were distributed upto 30-11-1991. Nearly 20,000 acres of land were reserved for public purposes. The beneficiaries under the programme were largely from the category of Scheduled Castes and Scheduled Tribes. Category wise details are given in Appendix 10.3.

10.12 Annual target for the distribution of surplus land and the achievement since 1988-89 are given below.

(in acres)

Year	Target fixed	Achievement			Total
		SC	ST	Others	
(1)	(2)	(3)	(4)	(5)	(6)
1988-89	1000	445	42	664	1551
1989-90	1000	343	16	346	705
1990-91	1000	159	38	207	404

The Assignees of surplus land are also given financial assistance @Rs. 2500 per hectare for agricultural development. The achievement under the scheme during the last 3 years are given in table 10.4.

TABLE 10.4

Financial Assistance to the Assignees of surplus land—Achievement

Particulars	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)
1. Total amount sanctioned (Rs. lakhs)	24.00	24.00	30.00
2. Amount spent (Rs. lakhs)	18.85	23.79	21.99
3. Number of beneficiaries			
(a) General	3343	2275	1523
(b) Scheduled Caste	2091	1964	1292
(c) Scheduled Tribe	450	207	74
Total—(3)	5884	4446	2889

Source: Land Board (Kerala)

Development Programme of Panchayats

10.13 The number of Panchayats in Kerala during the year 1991 was 982. The various development activities undertaken by the Panchayats include construction and maintenance of village roads, small bridges, culverts, petty irrigation works, sinking wells, construction and maintenance of public latrines, bus stands, shopping centres, market stalls etc. The amount spent by the Panchayats under such public works during 1990-91 is reported to be Rs. 23.22 crores. Under agricultural schemes, 10055 minor irrigation works were maintained by Panchayats benefiting 6,10 lakh acres. Under the scheme Rehabilitation of Puzamboke dwellers an amount of Rs. 88 lakhs has been distributed to 65 selected panchayats for providing 5 cents of land per family. As part of planning at grass root level, an amount of Rs. 18 crores was made available to the Panchayats during 1990-91 for taking up need based development works in a location specific manner. The works under this programme are to be executed directly by the Panchayats through functional committees with people's participation. Under this scheme 25% of the outlay has been earmarked for programmes benefiting Scheduled Castes and 5% for Scheduled Tribes. The total expenditure incurred by the Panchayats under this programmes upto 31-10-1991 was Rs. 1755 lakhs against the allotment of Rs. 1800 lakhs for 1990-91. The physical achievement of the programme during 1990-91 is furnished in Table 10.5.

TABLE 10.5

Physical Achievement under United Funds to Panchayats—1990-91

Sl. No.	Name of Scheme	Unit	Physical Achievement
(1)	(2)	(3)	(4)
1.	Construction and Improvement of Roads	Km.	800
2.	Construction of Foot bridges/bridges/Culverts	Nos.	342

(1)	(2)	(3)	(4)
3.	Construction of Waiting Sheds	Nos.	39
4.	Construction of Latrines	Nos.	10125
5.	Construction of Houses for Weaker Sections	Nos.	1120
6.	Electrification of Houses	Nos.	7583
7.	Construction of Play grounds/Community Halls/Public Buildings	Nos.	41
8.	Construction of Cultural Centres/Libraries	Nos.	54
9.	Construction of Nursery School Buildings	Nos.	26
10.	Construction of Shopping Complexes	Nos.	10
11.	Installation of Street Lights	Nos.	948
12.	Construction of Ponds/Wells	Nos.	126
13.	Construction of Drainage Schemes	Metres	835
14.	Installation of Water Taps	Nos.	113
15.	Installation of Smokeless Choolas	Nos.	200
16.	Construction of T.V. Kiosk	Nos.	19
17.	Installation of T.V. Sets	Nos.	63

Source: Directorate of Panchayats

Rural Development Board

10.14 The Kerala State Rural Development Board has been implementing remunerative development schemes in Panchayats viz., the construction of shopping centres, commercial complexes, market stalls, bus stands, lodging houses, office buildings etc., by raising the required resources through open market borrowing. The Board has so far floated debenture bonds worth Rs. 26.33 crores and has taken up 490 schemes costing Rs. 19.50 crores. During the year 1990-91, sanction has been accorded for 48 schemes costing Rs. 3.12 crores.

Western Ghats Development Programme

10.15 Soil Conservation, Minor Irrigation, Agriculture Development, Pasture Development, Afforestation, Drinking Water Supply Programme, Forest Schemes, Foot Bridges and Soil Survey in the main catchment areas are the major schemes implemented under the Western Ghats Development Programme. Besides continuing 14 spill over schemes, development Programmes for 12 new Watersheds were taken up during 1990-91. This is a fully centrally sponsored scheme. The total allotment for Western Ghats Development Programme for 1990-91 was Rs. 605.22 lakhs and the entire allotment was utilised. The Sector-wise break up of outlay and expenditure are furnished in Table 10.6

TABLE 10.6

Financial Achievement under Western Ghats Development Programme during 1990-91

Sector	Rs. lakhs	
	Financial	
	Outlay Expenditure	
(1)	(2)	(3)
I. Agriculture and Allied Services		
1. Soil & Water Conservation	130.29	130.12
2. Dairy Development	14.03	14.03
3. Forestry and Wild Life	155.65	159.62
4. Afforestation in Watersheds	14.95	17.44
5. Agriculture Development	18.08	18.00

(1)	(2)	(3)
6. Sericulture Development	27.60	27.60
II. Minor Irrigation	75.21	75.52
III. Water Supply	45.04	45.04
IV. Foot bridges	117.44	117.57
VI. Studies, Survey & Evaluation	3.23	3.41
VI. Western Ghats Cell	3.70	3.70
Total:	605.22	612.60

10.16 Category wise physical achievement under Western Ghats Development Programme during the year are given in Table 10.7

TABLE 10.7

Physical Target and Achievement under Western Ghats Development Programme during 1990-91

Sector/Programme	Unit	Physical	
		Target	Achievement
(1)	(2)	(3)	(4)
1. Soil Conservation	Hec.	1400	1021
2. Seedlings distributed	Nos.		
(i) Coconut	"	33120	33118
(ii) Pepper	"	68100	68050
(iii) Cashew	"	10200	10180
(iv) Other Seedlings	"	61000	60965
3. Minor Irrigation			
(i) Check Dams	"	19	43
(ii) Wells	"	31	31
(iii) Area Benefitted	Hec.	750	700
4. Dairy Development			
(i) Fodder/Pasture Development	Hec.	92	85
(ii) Construction of Cattle sheds	Nos.	215	422
5. Forestry Programmes			
(i) Afforestation in water sheds	Hec.	322	416
(ii) Eco-preservation of Forests	Hec.	714	674
(iii) Heterogeneous Forest Vegetation	Hec.	3224	4725
(iv) Fire Protection	Km.	1130	1337
6. Foot Bridges	Nos.	165	153
Soil Survey	Hec.	4000	8517

Social Security and Welfare

10.17 Social Security is the protection furnished by society to its members through a series of public measures against the economic and social distress caused due to unemployment, invalidity, destitution, social disability and backwardness, old age and death etc. Thus social security in broad terms would embrace social insurance, social assistance, family benefits, health care and other social services and related social welfare services. The social security and welfare schemes in the State are implemented through institutional care measures and non institutional measures.

10.18 The successive governments in Kerala have introduced a large number of social security and welfare schemes in view of attaining the goal of reducing income inequality among the weaker segments in society. As a result there are as many as

35 social security and welfare schemes for which there is direct budgetary support. During the period 1986 to 1991 the budget flow under social security and welfare schemes amounted to about Rs. 370 crores. This would increase in future as the state government have introduced four major pension schemes for the traditional workers in the state during 1989. The cashew, coir, Handloom and Khadi workers constitute 70% of the workers in the traditional industries sector.

10.19 The Board of Revenue and Labour Departments 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 schemes and other major schemes are implemented by the Labour Department. The major social security and pension schemes with details are presented in Table 10.8.

Social Security and Pension Scheme

37/851/MC.

Sl. No.	Name of Scheme	Qualifying eligi- bility conditions	Year of starting	Rate of Assistance (Rs.)	Amount spent (Rs. in lakhs)					No. of persons received assistance					
					1986-87	87-88	88-89	89-90	90-91	86-87	87-88	88-89	89-90	90-91	
1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	
1.	Old age, destitutes, widowed, divorced Destitutes	Above 65 years age, for widowed destitute no age limit. Monthly income not exceed Rs. 100	1960	Rs.55 p.m. in addition Rs. 5 pm. is also being paid those widows have one or more minor children	1071.00	319.37	1183.71	1178.63	1277.00	55588	1738851	177565			
2.	Special Pension scheme for the physi- cally handicapped, disabled and mentally retarded	Disabled persons who have minimum 40% disability are eligible. certificate from Medi- cal Board necessary. Beneficiaries monthly income Rs. 75 or family income not to exceed Rs. 5000/-	1982	75/PM	330.00	494.23	553.23	698.59	875.10	52821	58455	66744	72835	76000	
3.	Financial assistance to widows for the marriage of their daughters	Yearly income of the family should not exceed Rs. 5000	1978	Rs. 1000		102.79	116.47	92.13	92.43	10558	11647	11597	9213	9243	
4.	Pension to sportsmen	The scheme envisages financial assistance to sportsmen in distress. The income should not exceed Rs. 300 pm minimum age 45 years	1978	Rs. 100 p.m. (Below 60 years of age as 150 pm. 60-70 years of age of 200 pm. 76 years of age & above)		2.88	3.04	3.12	3.62	175	166	179	157	-	
5.	Agricultural workers pension Scheme	Eligible age is above 60 Annual family in- come should not exceed Rs.1500	1-4-1980	Rs. 45/revised as Rs 60/w.c.f. 1-4-87 and Rs. 70 wcf. 1-8-91		1641.63	1582.14	2144.16	2220.00	3024.00	261584	286733	299758	308346	316509
6.	Tree climbers Welfare Scheme	Financial assistance is given to workers in the event of fatal acci- dents and permanent total disability following the accident during the course of their occupa- tion	13-5-1980	Rs. 5000 en- hanced to Rs. 10000 wcf. 1-4-90		280.00	605.00	815.00	1390.00	1300.00	56	121	163	278	260
7.	Unemployment assistance scheme	Financial assistance is given to those who wait for employment in the live register of employ- ment exchange for more than three year	1981	Rs. 60 per m.	835.08	1095.65	2359.77	1996.96	1994.85	255683.	205556	215456	246040	264314	
8.	Self Employment Scheme	Unemployed persons	1980	600 per person	159.71	6.25	6.91	29.79	29.99	26619	1042	18243	4965	4255	

10.20. The Institutional support care is provided to about 30,310 persons through a network of 405 institutions. The expenditure commitment during 1991 amounted to Rs. 2.3 crores. The rele-

vant data are furnished in Table 10.9. Besides, there are Special homes established for the welfare of handicapped which benefited 450 persons during 1991. The details are furnished in Table 10.10.

TABLE 10.9
Major Social Security Schemes implemented by the Social Welfare Department—Institutional Care

Sl. No.	Schemes/Institutions	1989-90			1990-91		
		No. of Centres	No. of Beneficiaries	Expenditure (Rs. lakhs)	No. of Centres	No. of Beneficiaries	Expenditure (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I. Welfare Institutions run by Government							
(a)	Abalamandirs (Shelter for Waits and Strays)	10	209	11.99	10	205	14.58
(b)	Government Balasadan	2	158		2	145	..
(c)	Rescue Homes	3	121	16.64	3	142	19.58
(d)	After Care Hostels (for Women)	1	157		1	168	
(e)	Care Homes	5	143		5	179	
(f)	Custodial Care Home	1	15		1	15	
(g)	Home for Mentally Deficient children	2	80		2	80	
(h)	Care Home for disabled children	4	92	15.54	4	94	22.74
(i)	Home for physically Handicapped Children's Home	5	99		5	113		2.83
(j)	Working Women's Hostel	1	49	4.35	1	50	3.86
(k)	Home for cured Mental patients	2	36		2	43		1.98
(l)	Vocational Training Centres (Thiruvananthapuram and Kozhikode)	2	15	0.87	3	17	1.98
(m)		2	94	1.49	2	88	1.54
2. Institutions run by Voluntary Organisations							
(a)	Orphanages (Plan)	34	1225	10.71	34	1225	10.27
	(Non-Plan)	271	24215	139.01	271	24215	139.08
(b)	Home for Aged and Infirm	49	2688	9.99	49	2688	14.97
(c)	Founding Homes	5	440	1.66	5	440	1.29
(d)	Beggar Homes	3	366	2.08	3	366	2.01
(e)	Vocational Training Centres (Pathanamthitta & Thrissur)	2	44	0.58	2	42	0.82

TABLE 10.10
Welfare-Programme for the Handicapped

Scheme	Year of starting	No. of Beneficiaries		Expenditure		
		1989-90	1990-91	1989-90	1990-91	
(1)	(2)	(3)	(4)	(5)	(6)	
1. Home for mentally Deficient Children, Thiruvananthapuram, Calicut	1976	50	50	9.61	4.29	
	1976	30	30	2.30	3.07	
2. Custodial Care Home Manjeri	1974	15	15	1.24	1.61	
3. Care Home for Disabled Children, Kollam	1960	22	22	1.97	2.57	
	Alleppey	1981	24	25	1.40	1.78
	Trichur	1960	25	25	1.35	1.32
	Tellicherry	1981	21	22	1.23	1.36
4. H.P.H. Trivandrum	Alleppey	1976	25	25	1.30	1.68
	Ernakulam	1962	25	25	0.95	1.66
	Palakkad	1980	23	25	0.69	0.89
	Calicut	1962	11	13	1.36	1.78
	Calicut	1980	15	25	1.23	1.83
5. Home for cured Mental Patients, Trivandrum	Trichur	1991	15	17	0.87	1.38
	Trichur	1989				
6. Vocational Training Centre, Trivandrum	Calicut	1972	70	57	1.18	1.63
	Pathanamthitta	1973	20	31	0.31	0.51
	Trichur	..	30	30	0.49	0.54
	Trichur	..	14	12	0.08	0.38

Nutrition

10.21 The nutrition programme under implementation in the State are Integrated Child Development Service, Special Nutrition Programme in urban areas, Applied Nutrition Programmes 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 age and pregnant and lactating mothers. There were 87 ICDS projects in

the State as on 31-3-1991 of which 63 were central sector projects and 24 state sector projects. Under the ICDS programme a total of about 7.75 lakh beneficiaries were covered through a net work of 10321 feeding centres. The Development Department implemented the Applied Nutrition Programme and Composite Programme for women and pre-school children which covered 2.07 lakh beneficiaries. The noon meal programme implemented in schools covered 13.8 lakhs children during 1991. The programme-wise beneficiaries is given in Table 10.11.

TABLE 10.11

Feeding Centres-Beneficiaries under Different Feeding Programme

Programme	No. of Centres					No. of Beneficiaries (Rs. lakhs)				
	1986-87	1987-88	1988-89	1989-90	1990-91	1986-87	1987-88	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<i>Social Welfare Department</i>										
1. Special Nutrition programme	410	470	463	459	471	0.40	0.39	0.49	0.37	0.44
2. Integrated Child Development Services	8272	9227	10064	9651	9850	7.82	7.75	7.69	6.6	7.3
<i>Development Department</i>										
3. Applied Nutrition Programme	1985	1705	1611	1611	1509	0.97	0.98	1.04	1.04	0.97
4. Composite programme for women and pre-school children	1790	1652	1652	1550	1433	1.28	1.28	1.22	1.22	1.1
<i>Director of Public Instructions</i>										
5. School Meals Programme	8796	13816	13816	10506	9351	19.04	32.00	32.00	20.00	13.8

Welfare of Scheduled Castes and Scheduled Tribes

10.22 The national as well as state development policies focus attention on the uplift and betterment of Scheduled Castes and Scheduled Tribes who occupy the lowest stratum of the society. Several measures have been taken by successive governments through five year plans to bring these weaker sections to the mainstream of life both socially and economically. With the introduction of Special Component Plan and Tribal Sub Plan in the state in 1979-80, the sporadic attempts could gather specific and concrete shape and again in 1983-84 with the decentralisation of SCP and TSP to the district level, these attempts became more meaningful by ensuring people's participation at the formulation and implementation stages.

10.23 As the past efforts were geared mostly towards the educational development of these classes, the Scheduled Castes and Scheduled Tribes in Kerala are more enlightened than their counterparts in other states as is evidenced from their literacy rate, enrolment in schools and colleges, representation in government service etc. It was during the Sixth Five Year Plan that economic development programmes were recognised as a tool for raising the general standard of living of the Scheduled Castes and Scheduled Tribes. As a result more welfare measures and income generating economic development programmes could find a place in the plan programmes especially since the decentralisation effected in 1983-84.

Population

10.24 As per the 1981 census the scheduled castes in Kerala constituted 10.02% of the total population (i.e., 25.49 lakhs) and the Scheduled

Tribes 1.03 per cent (i.e., 2.61 lakhs). The urban agglomeration in the case of scheduled castes is as low as 12% and that of the scheduled tribes 2% compared to 19% of the general population. Districtwise details of population of the scheduled castes and scheduled tribes are furnished below:

TABLE 10.12

Population of Scheduled Castes/Scheduled Tribes (1981 Census)

District	Total Scheduled Scheduled population castes Scheduled tribes			
	(1)	(2)	(3)	(4)
1. Thiruvananthapuram	25.96	2.84	0.14	
2. Kollam	21.93	2.71	0.03	
3. Pathanamthitta	11.08	1.38	0.05	
4. Alappuzha	18.66	1.74	0.02	
5. Kottayam	16.97	1.19	0.15	
6. Idukki	9.69	1.33	0.38	
7. Ernakulam	25.35	2.17	0.04	
8. Thrissur	24.40	3.02	0.03	
9. Palakkad	20.44	3.77	0.29	
10. Malappuram	24.03	2.08	0.08	
11. Kozhikode	22.45	1.62	0.04	
12. Wayanad	5.54	0.21	0.96	
13. Kannur	19.31	0.78	0.15	
14. Kasaragod	8.73	0.65	0.25	
Total	254.54	25.49	2.61	

Literacy

10.25 The literacy level of the Scheduled Castes/Scheduled Tribes in Kerala is much higher compared to the all India figures. As per the 1981 census, the literacy rates of Scheduled castes and scheduled tribes in Kerala are 55.96% and 31.79% respectively compared to 21.38% and 16.35% respectively at the national level.

Table below highlights the rise in the level of literacy of the Scheduled Castes and Scheduled Tribes during the decade 1971-1981.

TABLE 10.13

Literacy Rate of Scheduled Caste/Scheduled Tribes

Year	Kerala			All India		
	General	Sched- uled Castes	Sched- uled Tribes	General	Schedu- led Castes	Schedu- led Tribes
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1971	60.42	40.21	25.72	29.45	14.67	11.30
1981	70.42	55.96	31.79	36.03	21.38	16.35

Educational Status

10.26 During the year under review, at the school level out of a total of 59.02 lakh students, the number of Scheduled Caste and Scheduled Tribe students stood at 6.64 lakhs and 0.65 lakhs constituting 11.25% and 1.10% respectively. The following table illustrates the stagewise enrolment.

TABLE 10.14

Enrolment of SC/ST students at school level as on 1-7-1991

Section	Student Strength				
	General	S.C.	% to total	ST	% to total
(1)	(2)	(3)	(4)	(5)	(6)
L.P.	2420227	280496	11.58	34225	1.41
U.P.	1932501	217902	11.12	19299	1.00
H.S.	1548925	165415	10.68	11383	0.73
Total	5901653	663813	11.25	64907	1.10

10.27 An analysis of the admission details at the university level shows that the Scheduled Caste/Scheduled Tribe students at the pre-degree, degree and post-graduate level constituted 16.2%, 8.50% and 10.95% respectively, during 1990-91. The course-wise details can be deduced from the following table.

TABLE 10.15

Admission details of scheduled Caste/Scheduled Tribes Students in the Arts & Science Colleges during 1990-91

Course	Total sanctioned Strength	Scheduled Caste/ Scheduled Tribes	Percentage
(1)	(2)	(3)	(4)
Pre-degree	103377	16766	16.2
Degree	42648	3627	8.50
Post-Graduate	4967	544	10.95

Representation in Government Employment

10.28 As part of the celebration of the Birth Centenary of Dr. B. R. Ambedkar, a special drive was launched in 1990-91, to fill up all the vacancies of special recruitment and to achieve the required percentage of reservation. Even though there was a slight decline in the appointments under the general category, marginal increase could be noticed in the filling up of posts reserved for Scheduled Castes and Scheduled Tribes. In the total number of posts for appointment the SC/ST representation was 9.75%, 10.05% and 14.09% respectively in the gazetted, non-gazetted and last grade services. The relevant details are furnished in the table given below:

TABLE 10.16

Re-representation of Scheduled Caste/Scheduled Tribes in Government Employment

Category	As on 1-1-1990			As on 1-1-1991		
	Total	SC	S-T	Total	SC	ST
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Gazetted	23070	1957	80	22742	2122	97
2. Non-Gazetted (excluding Last Grade)	255273	23013	1275	242917	23043	1368
3. Last Grade	41754	5174	474	37532	4805	484

Unemployment among Scheduled Castes/Scheduled Tribes

10.29 Eventhough the achievement of the Scheduled Castes and Scheduled Tribes on the educational front is quite encouraging, they are no exception to the acute unemployment problem prevalent among the educated class. The increase in the number of job seekers over the years has become a common feature of the economy. The following table illustrates the districtwise number of registered unemployed Scheduled Castes and Scheduled Tribes.

TABLE 10.17

Registered Unemployed Scheduled Castes/Scheduled Tribes as on 1990-91

District	Scheduled Caste	Scheduled Tribes
(1)	(2)	(3)
1. Thiruvananthapuram	53198	2839
2. Kollam	33803	192
3. Pathanamthitta	18910	305
4. Alappuzha	29487	496
5. Kottayam	20625	1991
6. Idukki	8573	4139
7. Ernakulam	40300	1084
8. Thrissur	28997	257
9. Palakkad	27858	488
10. Malappuram	25157	249
11. Kozhikode	27312	109
12. Wayanad	2131	3126
13. Kannur	11202	427
14. Kasaragod	3719	1561
Total:	331272	17263

Welfare Programmes

10.30 Apart from the implementation of schemes aiming at the removal of educational and social backwardness, more attention is now being paid on schemes which would raise the standard of living of the people and lift as many of them as possible above the poverty level. Major agencies in the field are the Scheduled Castes Development Department, Scheduled Tribe Development Department and the Kerala State Development Corporation for Scheduled Castes/Scheduled Tribes. Over and above this, as part of the State plan, Special Component Plan for Scheduled Castes and Tribal sub plan for Scheduled Tribes are being implemented exclusively for the benefit of these people by utilising the funds earmarked by different departments for the purpose. During 1990-91, out of the total State Plan Outlay of Rs. 635 crores an amount of Rs. 59.96 crores was earmarked for Special Component Plan and Rs. 10.86 crores for Tribal Sub Plan.

10.31 The Scheduled Castes Development Department has a large network of institutions including 99 Balawadi-cum-feeding centres, 53 nursery schools, 97 pre-matric hostels, 20 post matric hostels 3 pre-examination training centres, 63 Industrial Training Institutes and 3 pre-recruitment training Centres. The Department is implementing programmes for economic development, educational improvement and the improvement of housing. As housing is one of the pressing problems of the Scheduled Castes, the Department has to spend more on it. During 1990-91 assistance was extended for the construction of 818 houses at a total expenditure of 66.68 lakhs. The problem is being taken care of under the housing schemes of other departments like the Revenue Board also. The Board's programme could cover 58 beneficiaries under construction of houses out of a total of 396 beneficiaries and allotted 876 house-sites out of a total of 2634 house-sites. Details on the above for the period 1980-81 to 1990-91 are presented in Table 10.18.

TABLE 10.18

Achievements under the Housing Schemes for Rural Workers

Year	No. of sites allotted	Of which sites allotted to SC/ST	Expenditure (Rs. lakhs)	Houses constructed		
				No. of beneficiaries	Of which SC/ST	Expenditure (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1980-81	6248	N.A.	102.72	2330	658	16.40
1981-82	6605	N.A.	90.22	4053	1408	14.42
1982-83	8026	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	2179	947	150.00	335	72	180.39
1990-91	2634	876	195.15	395	58	14.88

10.32 Other schemes of the Scheduled Castes Development Department which needs special mention include Assistance for self employment, Industrial loans, Training facilities, Development of adaptive technology, Intensive Habitat Development Programme, Improvement of housing facilities, Assistance for marriage and major treatment, Enforcement of P. C R. Act etc.

10.33 Major activities of the Scheduled Tribe Development Department comprise educational, economic, health, housing and other general programmes benefiting the Scheduled Tribes. The Department is running a number of institutions viz. 59 Balawadies, 14 nurseries, 64 GRB hostels, 3 GRB schools, 45 Tribal Hostels, 17 Ayurveda Dispensaries, 12 Single Teacher Schools, 5 Midwifery Centres, 2

Mobile Medical Unit, 2 Mobile Employment Exchange, 3 Model Residential Schools, One Allopathy Hospital and One Ayurveda Hospital.

10.34 During 1990-91 under the various scholarship/stipend and other incentive programmes the department spent Rs. 233 lakhs benefiting 72389 tribals. The number of houses constructed by the Department increased from 238 in 1989-90 to 404 in 1990-91. The total expenditure (Plan and non-

Plan) of the Department marked a rise from Rs. 798 lakhs in 1989-90 to Rs. 1146 lakhs in 1990-91.

10.35 The Kerala State Development Corporation which was established in 1972 with the sole aim of implementing more and more innovative schemes exclusively for the benefit of SC/STs, has carried out various activities. The Corporation spent about Rs. 264 lakhs on such schemes during 1990-91, benefiting 4388 persons. The Programme wise details of activities of the Corporation are provided under Table 10.19.

TABLE 10.19

Achievements of Kerala State Development Corporation for Scheduled Castes and Scheduled Tribes as on 31-3-1991.

(Rs. lakhs)

Sl. No.	Name of Scheme	Number of Beneficiaries		Amount Spent	
		Upto 31-3-1990	During 1990-91	Upto 31-3-1990	During 1990-91
(1)	(2)	(3)	(4)	(5)	(6)
1.	Scheme for H.P. Loan for Autorickshaw	232	Nil	28.49	Nil
2.	Scheme for Training in Autorickshaw Driving	149	Nil	0.77	Nil
3.	Small Business Trade and Industries	4028	Nil	160.86	Nil
4.	Agricultural Land Purchase Scheme	8458	736	765.21	105.20
5.	Assistance to Co-operative Societies	20	Nil	62.29	Nil
6.	Loan for purchase of machinery	5	Nil	0.42	Nil
7.	Margin Money for Mini Industrial Estate	20	Nil	2.53	Nil
8.	Scheme for employment in foreign countries	2468	190	214.36	13.00
9.	Scheme for supply of Sewing Machines	4908	Nil	73.51	Nil
10.	Margin Money for Bankable Scheme under DRJ (old)	622	Nil	2.77	Nil
11.	Margin Money Scheme under S.C.A.	32858	2194	587.97	71.47
12.	Subsidised Seed Money Scheme	952	56	25.66	1.47
13.	<i>Margin Money Loan Scheme</i>				
	(a) For dealership in petro. bunk/cooking gas etc.	1	2	0.50	1.03
	(b) For purchase of 4 wheelers	Nil	1	Nil	1.50
	(c) For starting industries	Nil	Nil	Nil	Nil
14.	Training in Beauty Parlour Management	Nil	20	Nil	0.32
15.	Housing	34864	1249	1427.173	60.61
Total:		89585	3488	3352.553	263.80

10.36 The Land Reform measures of the State Government have contributed to a great extent, in bringing about changes both in the economic and social status of the Scheduled Castes and Scheduled Tribes in Kerala. Hence a special care is being taken for ensuring the due share to these classes in the distribution of surplus land as well as puram-

bokke land. Out of a total number of beneficiaries of 137257 under surplus land distribution, 59700 were Scheduled Castes and 7168 Scheduled Tribes. The share of Scheduled Castes in the surplus land distributed was 24704 acres and that of Scheduled Tribes 5107 acres out of a total of 63088 acres. The district wise details are provided in Appendix-10.4.

INSTITUTIONAL FINANCE

Financial institutions have a vital role to play in augmenting the resources needed for economic infrastructure development. The major All India financial institutions involved in extending credit facilities to various types of developmental activities are Life Insurance Corporation of India (LIC), Industrial Finance Corporation (IFCI), Industrial Development Bank of India (IDBI), Industrial Credit and Investment Corporation of India (ICICI) and National Bank for Agriculture and Rural Development (NABARD).

11.2 The overall performance of the All India Financial Institutions in terms of the quantum of assistance disbursed during 1990-91 has declined from level of disbursement in the previous year, registering an increase of only 7.4% in 1990-91 compared to 10.43 during the previous year. Out of the total amount of Rs. 11082.54 crores disbursed by All India Financial Institutions during 1990-91, the largest share of Rs. 3832.5 crore (34.58%) was disbursed by IDBI, followed by NABARD Rs. 1902.17 crores (17.16%) and UTI Rs. 1582.7 crores (14.28%). The share of GIC was only 1.32%, the lowest disbursement, as in the previous year.

11.3 An analysis of the State-wise disbursement showed that Maharashtra retained its top place receiving 23.83% of the total disbursement by All India Financial Institutions during 1990-91, followed by Gujarat (11.60%), Uttar Pradesh (9.44%) and Andhra Pradesh (9.35%). Assam, Bihar and Kerala were at the bottom receiving only 1.18%, 1.36% and 1.91% respectively, of the total credit disbursed. It is indication of the fact that the capital absorption by these States has undergone practically no change over the previous years. The State-wise assistance disbursed by All India Financial Institutions during 1990-91 is given in Appendix 11.1.

11.4 In terms of cumulative disbursement of assistance by All India Financial Institutions also, Maharashtra was at the top (15.62%) followed by Gujarat (11.13%), Uttar Pradesh (11.08%), Tamil Nadu (9.12%) and Andhra Pradesh (9.07%). Kerala's share (2.75%) was the lowest, next only to Assam (0.99%). In Kerala the major component of assistance is by IDBI (52.37%) and NABARD (29.22%). Of the Aggregate amount of Rs. 67409.34 crores disbursed by All India Financial Institutions so far, largest share was that of IDBI (47.64%) followed by NABARD (21.23%), ICICI (13.12%) and IFCI (10.26%). The details of State-wise and institution-wise disbursement is given in Appendix 11.2.

11.5. The per capita amount disbursed by All India Financial Institutions during 1990-91 in the country as a whole stood at Rs. 108.4. This was marginally higher than previous years disbursement, by Rs. 6.20. The per capita amount disbursed by IDBI was the highest with Rs. 46.6 followed by IFCI (Rs. 18.5) and ICICI (Rs. 17.1). The GIC has the lowest disbursement (Rs. 1.8). The State-wise disbursement during 1990-91 showed that

Maharashtra was the highest benefactor (Rs. 317.5) followed by Gujarat (Rs. 295.4) and Haryana (Rs. 162.6). Kerala received Rs. 35.0, very much lower than the All India level of Rs. 108.4 and among the major fifteen States, Kerala's position is thirteenth. The per capita amount received by the State declined from Rs. 57.7 in 1989-90 to Rs. 35.0 in 1990-91. This was because of the lower disbursement by IDBI and IFCI during the year. While disbursement by IDBI declined from Rs. 47.9 in 1989-90 to Rs. 25.7 in 1990-91, that of IFCI declined from Rs. 5.8 in 1989-90 to Rs. 3.7 in 1990-91. Details of State-wise per capita assistance disbursed by All India Financial Institutions during 1989-90 and 1990-91 are shown in Appendix 11.3.

11.6 After nationalisation in 1969 Commercial Banks have made impressive performance in opening branches as well as in advancing credit to various sectors of development. The number of bank offices increased more than seven fold in between 1960 and 1990 i.e. from 8262 in June 1969 to 59,897 in December 1990. The population served by a Bank office came down from 65,000 in 1969 to 12,000 in 1989. While the aggregate deposit increased from Rs. 3897 crores in 1969 to Rs. 1,72,393 crores in 1991, the aggregate credit increased only from Rs. 3835 crores in 1969 to Rs. 1,12,475 crores in 1991. Thus the credit deployment did not keep pace with the growth in deposits of Commercial Banks. The credit deposit ratio of Commercial Banks, which was 77.90 in 1969 came down to 64.35 in 1990. It showed a marginal increase of 1.38 per cent in 1991 (65.24%). Credit deposit (CD) ratios are found to vary widely between States from 39.47 to 98.48. The CD ratio is the highest for Tamil Nadu (98.48) followed by Karnataka (88.80), Andhra Pradesh (82.53) and Maharashtra (80.04). Kerala, with a CD ratio of 58.72% has the tenth rank among the major 15 States. The credit deposit ratio registered an increase in 1991 over the previous year only for the States of Madhya Pradesh, West Bengal, Orissa, Maharashtra, Gujarat, Haryana, Tamil Nadu and Uttar Pradesh. As far as Kerala is concerned, credit-deposit Ratio has been declining in recent years from 65.43 in 1989 to 58.72 in 1991. The trend of credit-deposit ratios of different States are shown in Table 11.1.

11.7 The deposits, advances and credit-deposit ratios of Commercial Banks in Kerala are furnished in Appendix 11.5. The credit deployment has not been picking up in proportion to the deposits received by Banks, especially in private sector Banks. From 1985 to 1991, except for 1987, the credit deposit ratio of Public Sector Banks was higher than that of Private Sector Banks. The NRE deposits, at the end of third quarter in 1991 showed an increase of 43% over the previous year. The credit deposit ratio of Commercial Banks in Kerala has been on the decline in recent years, and it reached an all time low of 52.6% as on 30-9-1991. This points to the need on the part of the State Government to redouble the effort in future to channel a larger share of investment funds from banks for the economic development of the State.

TABLE 11.1

*Deposits and Credits of Public Sector Banks (as at the end of June 1990)**(Rs. crores)*

States	Deposits				Credit				Credit-deposit ratio (%)			
	1969	1989	1990	1991*	1969	1989	1990	1991	1969	1989	1990	1991*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Andhra Pradesh	121	7396	8482	10036	122	6460	7488	8283	100.80	87.94	88.28	82.53
Assam	33	1492	1743	2052	13	858	961	1006	39.40	57.51	55.13	49.03
Bihar	169	6508	7643	8482	52	2480	2951	3348	30.80	38.1	38.61	39.47
Gujarat	401	8891	10194	11443	195	5287	6074	6989	48.60	59.46	59.58	61.08
Haryana	49	2853	3359	3833	23	1663	1931	2262	46.90	58.29	57.49	59.01
Karnataka	188	6239	7174	8300	143	5810	6396	7370	76.10	93.12	89.16	88.80
Kerala	117	4408	5132	6027	77	2884	3251	3539	65.80	65.43	63.35	58.72
Madhya Pradesh	107	5269	6469	7196	63	3645	4312	5424	58.90	69.18	66.66	75.98
Maharashtra	903	21909	26032	29739	911	17804	20670	23803	100.09	81.26	79.40	80.04
Orissa	29	1761	2192	2461	15	1455	1678	1929	51.70	82.62	76.55	78.98
Punjab	185	7744	8744	9839	50	3196	3856	4324	27.0	41.27	44.08	43.95
Rajasthan	74	3400	3999	4697	38	2087	2449	2730	51.40	61.38	61.24	58.12
Tamil Nadu	233	8011	9806	11607	311	8106	9928	11430	133.50	101.19	101.24	98.48
Uttar Pradesh	337	13843	16260	18233	154	6253	7636	8692	45.17	45.17	46.96	47.67
West Bengal	456	12539	14689	16170	526	6310	7352	8437	115.40	50.32	50.05	52.18
Total—Major States	3402	112263	131921	150115	2693	74298	86933	99566	72.20	66.18	65.90	66.331
All India	3897	131016	153147	172393	3835	83715	98550	112475	77.90	63.90	64.35	65.24

Source: (1) R.B.I. Bulletin

(2) Economic Survey—1991-92, Government of India

APPENDIX

STATISTICAL TABLES

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APPENDIX 2.1

Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin at Current Prices (New Series)

(Rs. lakhs)

Industry of Origin	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90 (P)	1990-91 (Q)	1991-92 (A)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Agriculture	129384	131163	153826	199323	214908	203536	234710	261685	304092	331460	333462	356804
Forestry & Logging	12382	8048	14364	8097	8448	9018	9872	7170	5694	5238	13068	14375
Fishing	7743	6292	7923	8938	8942	11777	12104	12410	20397	25700	22666	26293
Mining & Quarrying	461	640	754	690	1014	920	912	1159	1287	1430	3156	3999
Sub Total—Primary	149970	146143	176867	217048	233312	225251	257598	282424	331470	363828	372352	401471
Manufacturing	53152	61585	71171	75013	79448	86335	90178	106083	116474	128236	171948	197323
Registered	29030	33461	36610	41755	45368	47610	48892	68454	78085	89072	129541	153338
Un-registered	24122	28124	34561	33258	34080	38725	41286	37629	38389	39164	42407	43985
Electricity, Gas & Water Supply	5509	3647	2797	1785	4345	2411	5981	3493	4658	6332	5436	7383
Electricity	5077	3111	2293	1102	3772	1363	4305	1526	2374	3693	2572	4096
Gas	85	95	101	109	125	510	970	1030	1151	1269	1479	1696
Water Supply	347	441	403	574	448	538	706	937	1133	1370	1385	1591
Construction	34496	38427	42657	52889	60378	77439	76657	82617	94704	108559	120927	136442
Sub—Total—Secondary	93157	103659	116625	129687	144171	166185	172816	192193	215836	243127	298311	341148
Transport, Storage & Communication	13625	14725	18781	23676	32009	37448	44678	56718	63785	76507	80110	90163
Railways	419	835	1010	1181	1039	1529	1898	2967	3106	3976	4183	4206
Transport by Other Means & Storage	10770	11482	14769	18976	26838	31446	37016	47032	51376	60624	57792	61837
Communication	2436	2408	3002	3519	4132	4473	5764	6719	9303	11907	18135	24120
Trade, Hotel & Restaurants	57577	55856	64789	75712	81980	82360	100046	108439	113444	121385	164926	186366
Banking & Insurance	11428	16206	19803	22873	27198	31424	38455	41146	47196	54275	65735	75575
Real Estate Ownership & and Dwellings	12198	12359	13152	12868	13159	10463	9055	7572	6917	6142	2010	1367
Public Administration	15133	16873	17489	19259	25191	30806	39146	44417	48224	55940	59258	65766
Other Services	29766	34982	38713	45392	50808	59704	70241	77379	86643	96174	107175	118964
Sub Total—Tertiary	139727	151001	172727	199780	230345	252205	301621	335671	366209	410423	479214	538201
Net Domestic Product	382854	400803	466219	546515	607828	643641	732035	810288	913515	1017378	1149877	1280820
Population ('000)	25312	25709	26170	26658	27157	27648	28126	28589	29041	29482	29918	30348
Per Capita Income (Rs)	1513	1559	1782	2050	2238	2328	2603	2834	3146	3451	3843	4220

Income figures from 1981-82 to 1989-90 are to be revised.

P—Provisional Estimates; Q—Quick Estimates. A—Anticipated.

Source: Department of Economics and Statistics.

APPENDIX 2.2

Net State Domestic Product and Per Capita Income of Kerala at Factor Cost by Industry of Origin at Constant Prices (New Series)

(Rs. lakhs)

Industry of Origin	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90 (P)	1990-91 (Q)	1991-92 (A)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Agriculture	129384	130483	128638	118576	131975	137924	130949	136601	163898	173732	174600	185076
Forestry & Logging	12382	7283	8832	5288	4749	4507	4389	3072	2067	1695	4496	5395
Fishing	7743	5797	6958	7691	6764	7042	5917	5325	7495	7795	6635	6701
Mining & Quarrying	461	590	481	345	540	496	647	525	583	648	2141	2712
Sub Total Primary	149970	144153	144909	131900	144028	149969	141902	145523	174043	183870	187872	199884
Manufacturing	53152	57178	62187	58565	56916	58480	52345	56440	59783	63790	82266	94008
Registered	29030	31028	32324	32388	30865	31114	25442	35072	39639	44800	64448	75527
Un-registered	24122	26150	29863	26177	26051	27366	26903	21368	20144	18990	17818	18481
Electricity, Gas & Water Supply	5509	3394	2438	1354	2928	1558	3198	1894	2455	3250	2829	3769
Electricity	5077	2885	2025	855	2566	891	2240	782	1205	1857	1258	1973
Gas	85	84	87	95	97	394	653	692	775	856	968	1110
Water Supply	347	425	326	404	265	273	305	420	475	537	603	686
Construction	34496	31495	28944	31405	31509	35732	33176	31876	35692	39962	43127	47470
Sub—Total—Secondary	93157	92067	93569	91324	91353	95770	88719	90210	97930	107002	128222	145247
Transport, Storage & Communication	13625	14271	14832	15691	18644	21094	22219	24013	24275	25452	27286	28613
Railways	419	646	629	686	705	836	807	872	812	816	893	900
Transport by Other Means & Storage	10770	10841	11352	11879	14717	16967	17966	19538	19755	20743	21779	22868
Communication	2436	2784	2851	3126	3222	3231	3446	3603	3708	3893	4614	4845
Trade, Hotel & Restaurants	57577	53063	55197	52110	55804	56480	55522	57178	56017	55849	61201	61507
Banking & Insurance	11428	12098	13654	14914	16867	19193	21966	22630	24856	27093	33132	35451
Real Estate Ownership & Dwellings	12198	12166	12567	12178	11840	9011	7639	6324	5777	5026	4632	4447
Public Administration	15133	15375	17005	17515	19267	20208	22889	25269	27435	30453	32595	35529
Other Services	29766	30282	30890	31497	31980	32507	32953	33558	34095	35800	35460	36169
Sub—Total—Tertiary	139727	137255	144145	143905	154402	158433	163188	168972	172455	179673	194306	201716
Net Domestic Product	382854	379475	382623	367129	389783	404172	393809	404705	444428	470545	510400	546847
Per Capita Income (Rs)	1513	1453	1462	1377	1435	1462	1400	1416	1530	1596	1706	1802

Income figures from 1981-82 to 1989-90 are to be revised.

P—Provisional Estimates; Q—Quick Estimates. A—Anticipated.

Source: Department of Economics and Statistics.

Sector-wise Distribution of Net Domestic Product of Districts at Factor Cost (New Series)

(Rs. 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)
Thiruvananthapuram	1980-81	12166 (31.7)	9742 (25.5)	16426 (42.8)	38334 (100.0)	12166 (31.7)	9742 (25.5)	16426 (42.8)	38334 (100.0)
	1981-82	11817 (29.9)	9696 (24.5)	17997 (45.6)	39510 (100.0)	11598 (31.8)	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 (28.8)	16695 (47.2)	35936 (100.0)
	1983-84	18922 (34.8)	11799 (21.7)	23638 (43.5)	54359 (100.0)	11166 (30.5)	8416 (23.1)	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 (26.9)	8337 (20.9)	20796 (52.2)	39819 (100.0)
	1987-88	22156 (27.4)	17158 (21.3)	41382 (51.3)	80695 (100.0)	11533 (27.7)	8420 (20.2)	21720 (52.1)	41673 (100.0)
	1988-89	25491 (30.5)	21378 (25.5)	36839 (44.0)	83708 (100.0)	13846 (34.0)	9588 (23.6)	17220 (42.4)	40654 (100.0)
	1990-91	28152 (24.2)	28376 (24.5)	59417 (51.3)	115945 (100.0)	14414 (28.0)	11848 (23.0)	25203 (49.0)	51465 (100.0)
Kollam	1980-81	19708 (45.5)	10068 (23.3)	13533 (31.2)	43309 (100.0)	19708 (45.5)	10068 (23.3)	13533 (31.2)	43309 (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)	12464 (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 (36.6)	33883 (100.0)
	1986-87	25144 (42.0)	11731 (19.5)	23057 (38.5)	59932 (100.0)	13475 (41.4)	6233 (19.1)	12844 (39.5)	32552 (100.0)
	1987-88	26953 (41.2)	12813 (19.6)	25713 (39.2)	65479 (100.0)	13683 (41.0)	6349 (19.0)	13374 (40.0)	33406 (100.0)
	1988-89	32843 (43.3)	16225 (21.4)	26823 (35.3)	75891 (100.0)	16368 (45.0)	7439 (20.6)	12527 (34.4)	36334 (100.0)
	1990-91	37009 (38.2)	22648 (23.4)	37219 (38.4)	96876 (100.0)	17395 (41.0)	9901 (23.3)	15194 (35.7)	42490 (100.0)

APPENDIX 2.3 (Contd.)

Sector-wise Distribution of Net Domestic Product of Districts at Factor Cost (New Series)

(Rs. 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)
Pathanamthitta	1983-84	8771 (41.4)	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 (21.0)	3421 (31.0)	6271 (38.4)	16323 (100.0)
	1985-86	11728 (42.3)	5692 (20.6)	10250 (37.0)	27670 (100.0)	7949 (44.1)	3486 (19.3)	6604 (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 (38.0)	35329 (100.0)	7904 (42.8)	3399 (18.4)	7180 (38.8)	18483 (100.0)
	1988-89	15073 (39.2)	8481 (22.0)	14935 (39.8)	38489 (100.0)	7926 (41.5)	3932 (20.6)	7213 (37.9)	19071 (100.0)
	1990-91	18831 (37.2)	11738 (23.3)	19921 (39.5)	50490 (100.0)	9339 (40.7)	5123 (22.4)	8446 (36.9)	22908 (100.0)
Alappuzha	1980-81	10149 (32.8)	7675 (24.9)	13043 (42.3)	30867 (100.0)	10149 (32.8)	7675 (24.9)	13043 (42.3)	30867 (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 (36.3)	7179 (22.3)	13341 (41.4)	32245 (100.0)
	1983-84	13585 (36.9)	8588 (23.5)	14509 (39.6)	36682 (100.0)	8864 (34.7)	6256 (24.5)	10403 (40.8)	25523 (100.0)
	1984-85	15619 (37.7)	9229 (22.9)	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 (34.1)	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 (22.5)	23607 (43.7)	54035 (100.0)	9742 (34.6)	6131 (21.8)	12247 (43.6)	28120 (100.0)
	1988-89	22005 (34.5)	14923 (23.4)	26873 (42.1)	63801 (100.0)	10923 (35.9)	6953 (22.8)	12559 (41.3)	30435 (100.0)
	1990-91	24414 (30.9)	20490 (25.9)	34122 (43.2)	79026 (100.0)	11918 (34.5)	8933 (26.0)	13634 (39.5)	34485 (100.0)
	Kottayam	1980-81	10777 (43.6)	3616 (14.8)	10287 (41.6)	24680 (100.0)	10777 (43.6)	3616 (14.8)	10287 (41.6)	24680 (100.0)
1981-82		12270 (45.1)	3715 (13.7)	11214 (41.2)	27199 (100.0)	11344 (45.6)	3387 (13.6)	10152 (40.8)	24883 (100.0)
1982-83		15250 (47.1)	4186 (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)	4962 (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 (43.1)	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		21320 (44.0)	5862 (12.0)	21517 (44.0)	48899 (100.0)	12183 (44.5)	3216 (11.8)	11937 (43)	27336.0 (100.0)
1987-88		24013 (44.1)	6414 (11.8)	23958 (44.1)	54385 (100.0)	12594 (44.5)	3281 (11.6)	12407 (43.9)	28282 (100.0)
1988-89		27027 (44.1)	7550 (12.3)	26715 (43.6)	61292 (100.0)	15448 (49.0)	3619 (11.5)	12467 (39.5)	31534 (100.0)
1990-91		30074 (39.7)	10594 (14.0)	35150 (46.3)	75818 (100.0)	15709 (45.3)	4778 (13.9)	14129 (40.8)	34616 (100.0)

APPENDIX 2.3 (Contd.)

Sector-wise Distribution of Net Domestic Product of Districts at Factor Cost (New Series)

(Rs. 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)
Idukki	1980-81	10506 (54.3)	5469 (28.5)	3310 (17.2)	19285 (100.0)	10506 (54.3)	5469 (28.5)	3310 (17.2)	19285 (100.0)
	1981-82	12376 (58.1)	5379 (25.3)	3537 (16.6)	21292 (100.0)	11605 (59.2)	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 (60.4)	6667 (23.2)	4714 (16.4)	28786 (100.0)	9274 (53.4)	4718 (27.3)	3369 (19.3)	17361 (100.0)
	1984-85	16903 (57.1)	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	16826 (34.2)	11176 (22.7)	21258 (43.1)	49260 (100.0)	9036 (33.6)	6080 (22.6)	11802 (43.8)	26918 (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)
	1988-89	25098 (52.6)	13613 (28.6)	8977 (18.8)	47688 (100.0)	11998 (53.7)	6136 (27.4)	4220 (18.9)	22354 (100.0)
	1990-91	25930 (45.5)	19931 (35.0)	11154 (19.5)	57015 (100.0)	13299 (50.0)	8807 (33.3)	4444 (16.7)	26550 (100.0)
Eranakulam	1980-81	12830 (25.1)	18385 (36.0)	19847 (38.9)	51062 (100.0)	12830 (25.1)	18385 (36.0)	19847 (38.9)	51062 (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 (41.5)	49675 (100.0)
	1984-85	23407 (28.9)	25448 (31.4)	32187 (39.7)	81042 (100.0)	14784 (27.9)	16314 (30.9)	21772 (41.2)	52870 (100.0)
	1985-86	22314 (26.3)	28308 (33.4)	34149 (40.3)	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 (42.5)	106747 (100.0)	14685 (26.8)	16133 (29.5)	23903 (43.7)	54721 (100.0)
	1988-89	35771 (28.3)	45336 (35.9)	45191 (35.8)	126298 (100.0)	17727 (29.6)	20678 (34.5)	21464 (35.9)	59869 (100.0)
	1990-91	38316 (22.9)	65209 (39.0)	63699 (38.1)	167224 (100.0)	19116 (25.6)	28708 (38.6)	26576 (35.8)	74400 (100.0)

APPENDIX 2.3 (Contd.)

Sector-wise Distribution of Net Domestic Product of Districts at Factor Cost (New Series)

(Rs. 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)
Thiruvananthapuram	1980-81	12263 (34.4)	9083 (25.6)	14263 (40.0)	35609 (100.0)	12263 (34.4)	9083 (25.6)	14263 (40.0)	35609 (100.0)
	1981-82	12381 (33.5)	9048 (24.5)	15561 (42.1)	36990 (100.0)	13099 (37.1)	8052 (22.9)	14112 (40.0)	35263 (100.0)
	1982-83	15144 (35.0)	10114 (23.5)	17922 (41.5)	43180 (100.0)	13241 (36.6)	8150 (22.5)	14780 (40.9)	36171 (100.0)
	1983-84	18545 (36.8)	11522 (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 (45.9)	72062 (100.0)	12832 (33.8)	7811 (20.6)	17314 (45.6)	37957 (100.0)
	1988-89	27006 (31.2)	21436 (24.9)	38009 (43.9)	86451 (100.0)	14696 (34.8)	9578 (22.7)	17902 (42.5)	42176 (100.0)
	1990-91	29928 (27.7)	29538 (27.3)	48645 (45.0)	108111 (100.0)	15150 (32.0)	12544 (26.6)	19501 (41.4)	47195 (100.0)
Palakkad	1980-81	10758 (40.4)	6179 (23.3)	9684 (36.3)	26621 (100.0)	10758 (40.4)	6179 (23.3)	9684 (36.3)	26621 (100.0)
	1981-82	12238 (42.2)	6270 (21.6)	10514 (36.2)	29022 (100.0)	11535 (43.3)	5618 (21.0)	9538 (35.7)	26691 (100.0)
	1982-83	13768 (41.8)	7159 (21.8)	11985 (36.4)	32912 (100.0)	10318 (39.7)	5835 (22.4)	9855 (37.9)	26008 (100.0)
	1983-84	15633 (41.9)	7674 (20.6)	13968 (37.5)	37275 (100.0)	9307 (37.6)	5522 (22.4)	9898 (40.0)	24728 (100.0)
	1984-85	16195 (40.4)	8237 (20.5)	15717 (39.1)	40149 (100.0)	9679 (37.7)	5460 (21.3)	10554 (41.1)	25693 (100.0)
	1985-86	16337 (38.9)	9294 (21.7)	17102 (40.0)	42733 (100.0)	9811 (37.2)	5631 (21.4)	10903 (41.4)	26345 (100.0)
	1986-87	20519 (40.0)	10082 (19.6)	20744 (40.4)	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)	28834 (100.0)
	1988-89	20117 (32.8)	13409 (21.9)	27801 (45.3)	61327 (100.0)	11271 (37.0)	6081 (20.0)	13087 (43.0)	30439 (100.0)
	1990-91	25751 (33.5)	17622 (23.0)	33377 (43.5)	76750 (100.0)	13267 (38.8)	7345 (21.5)	13573 (39.7)	34185 (100.0)

APPENDIX 2.3 (Cont.)

Sector-Wise Distribution of Net Domestic Product of Districts at Factor Cost (New Series)

(Rs. 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)
Malappuram	1980-81	11986 (48.0)	3300 (13.4)	9637 (38.6)	24923 (100.0)	11986 (48.0)	3300 (13.4)	9637 (38.6)	24923 (100.0)
	1981-82	10938 (45.0)	3057 (12.5)	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)	31855 (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 (42.0)	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 (10.7)	11571 (46.6)	2825 (100.0)
	1988-89	23181 (39.4)	7980 (13.6)	27641 (47.0)	58802 (100.0)	12931 (44.3)	3320 (11.4)	12943 (44.3)	29194 (100.0)
	1990-91	27090 (38.5)	10318 (14.7)	32969 (46.8)	70377 (100.0)	13697 (44.7)	4012 (13.2)	12903 (42.1)	30612 (100.0)
Kozhikode	1980-81	16048 (38.6)	10915 (26.3)	14598 (35.1)	41561 (100.0)	16048 (38.6)	10915 (26.3)	14598 (35.1)	41561 (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)	31530 (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)	12101 (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)	15909 (46.4)	32952 (100.0)
	1987-88	19574 (29.2)	17248 (25.6)	30320 (45.2)	67142 (100.0)	10925 (31.0)	8470 (24.0)	15847 (45.0)	35242 (100.0)
	1988-89	24073 (28.7)	22263 (26.5)	37664 (44.8)	84000 (100.0)	12884 (31.6)	10119 (24.8)	17784 (43.6)	40787 (100.0)
	1990-91	25692 (25.4)	30655 (30.3)	44853 (44.9)	101200 (100.0)	13076 (29.8)	13153 (30.2)	17511 (40.0)	43740 (100.0)

APPENDIX 2.3 (Contd.)

Sector-wise Distribution of Net Domestic Product of Districts at Factor Cost (New Series)

(Rs. 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)
Wayanad	1981-82	7850 (67.3)	1784 (15.3)	2034 (17.4)	11668 (100.0)	8431 (71.2)	1631 (13.8)	1781 (15.0)	11883 (100.0)
	1982-83	6567 (60.3)	2054 (19.0)	2254 (20.7)	10865 (100.0)	4728 (57.3)	1743 (21.1)	1778 (21.6)	8249 (100.0)
	1983-84	6489 (57.0)	2180 (19.1)	2729 (23.9)	11398 (100.0)	3569 (49.9)	1645 (23.0)	1940 (27.1)	7154 (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 (63.2)	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)
	1988-89	14010 (60.8)	3570 (15.5)	5462 (23.7)	23042 (100.0)	6353 (59.5)	1736 (16.3)	2591 (24.2)	10680 (100.0)
	1990-91	17810 (59.8)	4987 (16.9)	6952 (23.3)	29749 (100.0)	8868 (63.8)	2252 (16.5)	2756 (19.7)	13876 (100.0)
	Kannur	1980-81	22779 (48.8)	8725 (18.8)	15099 (32.4)	46603 (100.0)	22779 (48.8)	8725 (18.8)	15099 (32.4)	46603 (100)
1981-82		14633 (37.8)	8439 (21.8)	15595 (40.4)	38667 (100.0)	13979 (39.1)	7478 (21.0)	14262 (39.9)	35719 (100)
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 (38.7)	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)
1988-89		26645 (38.0)	13591 (19.4)	29937 (42.6)	70173 (100.0)	14183 (41.4)	6008 (17.6)	14037 (41.0)	34228 (100.0)
1990-91		28712 (34.5)	18102 (21.7)	36503 (43.8)	83317 (100.0)	14925 (40.8)	7471 (20.5)	14144 (38.7)	36540 (100.0)
Kasaragod	1985-86	10565 (47.3)	4001 (17.9)	7756 (34.7)	22322 (100.0)	4788 (38.6)	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)
	1988-89	13130 (40.3)	6081 (18.7)	13342 (41.0)	32553 (100.0)	7489 (45.1)	2693 (16.2)	6441 (38.7)	16623 (100.0)
	1990-91	14643 (38.5)	8103 (21.4)	15233 (40.1)	37979 (100.0)	7699 (44.3)	3347 (19.4)	6292 (36.3)	17338 (100.0)

APPENDIX 2.3 (Contd.)

Sector-wise Distribution of Net Domestic Product of Districts at Factor Cost (New Series)

		(Rs. 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)
Kerala State	1980-81	149970 (39.2)	93157 (24.3)	139727 (36.5)	382854 (100.0)	149970 (39.2)	93157 (24.3)	139727 (36.5)	382854 (100.0)
	1981-82	146143 (36.5)	103659 (25.9)	151001 (37.6)	400803 (100.0)	144153 (38.6)	92067 (24.7)	13725 (36.7)	373575 (100.0)
	1982-83	176867 (37.9)	116625 (25.0)	172727 (37.1)	466219 (100.0)	144909 (37.0)	93569 (24.5)	144145 (37.6)	382623 (100.0)
	1983-84	217048 (39.7)	129687 (23.7)	199780 (36.6)	546515 (100.0)	131900 (35.9)	91324 (24.9)	143905 (39.2)	367129 (100.0)
	1984-85	233312 (38.4)	144171 (23.7)	230345 (37.9)	607828 (100.0)	144028 (37.9)	91353 (23.4)	154402 (39.6)	389783 (100.0)
	1985-86	225251 (35.0)	166185 (25.8)	252205 (39.2)	643641 (100.0)	149969 (37.1)	95770 (23.7)	158433 (39.2)	404172 (100.0)
	1986-87	257598 (35.2)	172816 (23.6)	301621 (41.2)	732035 (100.0)	141902 (36.0)	88719 (22.5)	163188 (41.5)	393809 (100.0)
	1987-88	282424 (34.9)	192193 (23.7)	335671 (41.4)	810288 (100.0)	145523 (36.0)	90210 (22.3)	168972 (41.7)	404705 (100.0)
	1988-89	331470 (36.3)	215836 (23.6)	366209 (40.1)	913515 (100.0)	174043 (39.2)	97930 (22.0)	172455 (38.8)	444428 (100.0)
	1989-90	363828 (35.8)	243127 (23.9)	410423 (40.3)	1017378 (100.0)	183870 (39.1)	107002 (22.7)	179673 (38.2)	470545 (100.0)
	1990-91	372352 (32.4)	298311 (25.9)	479214 (41.7)	1149877 (100.0)	187872 (36.8)	128222 (25.1)	194306 (38.1)	510400 (100.0)

Income figures from 1981-82 to 1988-89 are to be revised.

APPENDIX 2.4

District-wise Distribution of State Income at Constant (1980-81) Prices—1980-81 and 1990-91

(Rs. lakhs)

SLNo.	District	1980-81				1990-91 (Q)				Population ('000)		Per capita Income (Rs.)	
		Primary	Secondary	Tertiary	Total	Primary	Secondary	Tertiary	Total	1981	1991	1980-81	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Thiruvananthapuram	12166 (8.11)	9742 (10.45)	16426 (11.75)	38334 (10.01)	14414 (7.67)	11848 (9.24)	25203 (12.97)	51465 (10.08)	2574	3052	1489	1686
2	Kollam	19708 (13.14)	10068 (10.80)	13533 (9.69)	43309 (11.31)	17395 (9.26)	9901 (7.72)	15194 (7.82)	42490 (8.32)	2810	2579	1541	1648
3	Pathanamthitta	..	..	..	..	9339 (4.97)	5123 (4.00)	8446 (4.35)	22908 (4.49)	..	1301	..	1761
4	Alappuzha	10149 (6.77)	7675 (8.25)	13043 (9.34)	30867 (8.06)	11918 (6.34)	8933 (6.96)	13634 (7.01)	34485 (6.75)	2346	2193	1316	1573
5	Kottayam	10777 (7.19)	3616 (3.88)	10287 (7.37)	24680 (6.45)	15709 (8.36)	4778 (3.73)	14129 (7.27)	34616 (6.78)	1693	1996	1458	1731
6	Idukki	10506 (7.00)	5469 (5.87)	3310 (2.37)	19285 (5.03)	13299 (7.08)	8807 (6.87)	4444 (2.29)	26550 (5.20)	964	1140	2001	2329
7	Ernakulam	12830 (8.56)	18385 (19.74)	19847 (14.20)	51062 (13.33)	19116 (10.18)	28708 (22.38)	26576 (13.67)	74400 (14.58)	2524	2980	2023	2497
8	Thrissur	12263 (8.18)	9083 (9.76)	14263 (10.21)	35609 (9.30)	15150 (8.07)	12544 (9.79)	19501 (10.04)	47195 (9.25)	2427	2866	1467	1647
9	Palakkad	10758 (7.17)	6179 (6.63)	9684 (6.93)	26621 (6.96)	13267 (7.06)	7345 (5.73)	13573 (6.99)	34185 (6.70)	2030	2402	1311	1423
10	Malappuram	11986 (7.99)	3300 (3.54)	9637 (6.89)	24923 (6.51)	13697 (7.29)	4012 (3.13)	12903 (6.64)	30612 (6.00)	2377	2824	1049	1084
11	Kozhikode	16048 (10.70)	10915 (11.72)	14598 (10.45)	41561 (10.86)	13076 (6.96)	13153 (10.26)	17511 (9.01)	43740 (8.57)	2610	2639	1592	1657
12	Wayanad	..	..	..	..	8868 (4.72)	2252 (1.76)	2756 (1.42)	13876 (2.72)	..	652	..	2128
13	Kannur	22779 (15.19)	8725 (9.36)	15099 (10.80)	46603 (12.18)	14925 (7.94)	7471 (5.82)	14144 (7.28)	36540 (7.16)	2957	2268	1576	1611
14	Kasaragod	..	..	..	..	7699 (4.10)	3347 (2.61)	6292 (3.24)	17338 (3.40)	..	1026	..	1690
State Domestic Product		149970 (100.00)	93157 (100.00)	139727 (100.00)	382854 (100.00)	187872 (100.00)	128222 (100.00)	194306 (100.00)	510400 (100.00)	25312	29918	1513	1706

Figures in brackets indicate percentage to state total; (Q) Quick estimate.

Source: Department of Economics and Statistics.

APPENDIX 2.5

Total Work Seekers in Kerala

Year	General	Professional & Technical	Total Work Seekers
(1)	(2)	(3)	(4)
1980	1579164	38205	1617369
1981	1903719	43450	1947169
1982	2086056	46651	2132707
1983	2262240	54256	2316496
1984	2458206	83750	2541956
1985	2574074	68728	2642802
1986	2704874	79335	2784209
1987	2991022	87011	3078033
1988	2901051	87482	2988533
1989	3092031	97846	3189877
1990	3320035	105260	3425295
1991	3638804	100861	3739665

Note: General includes job seekers with qualification below SSLC, SSLC, PDC, Graduates and Post graduates.

APPENDIX 2.6

Distribution of Work Seekers in Kerala by Educational Levels (General)

Year as on 31st December	Total Work Seekers	Below S.S.L.C.	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)
1980	1579164	765141	658652	79310	67841	8220	814023	51.55
1981	1903719	979830	748898	90254	77694	7043	923889	48.53
1982	2086056	1049320	842772	102644	84161	7159	1036736	49.70
1983	2262240	1128860	920622	117161	88557	7040	1133380	50.10
1984	2458206	1194453	1050073	121369	84025	8286	1263753	51.40
1985	2574074	1208724	1116495	148464	90329	10062	1365350	59.05
1986	2704874	1209462	1251793	136193	97217	10209	1495412	55.30
1987	2991022	1270764	1434413	161155	111008	13682	1720258	57.51
1988	2901051	1185145	1438051	160233	100330	17292	1715906	59.14
1989	3092031	1204737	1565709	188978	111372	21235	1887294	61.04
1990	3320035	1227319	1655465	273725	135213	28319	2092716	63.03
1991	3638804	1318514	1885304	257173	150014	27799	2320290	63.76

Source: Directorate of Employment, Thiruvananthapuram.

APPENDIX 2.7

Number of Professional and Technical Work Seekers—Kerala

Year as on 31st December	Medical Graduates	Engineering Graduates	Diploma holders in Engineering & Technology	ITI Certificate Holders	Agricultural Graduates	Veterinary Graduates	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1980	871	1505	6833	28873	106	17	38205
1981	681	1217	7866	33569	103	14	43450
1982	912	1662	7824	36043	195	15	46651
1983	829	1757	9756	41682	218	14	54256
1984	1035	2312	11646	68452	263	42	83750
1985	1143	2917	11257	53237	149	25	68728
1986	1270	3805	14812	59225	209	14	79335
1987	1728	4916	17062	63056	177	72	87011
1988	1334	4380	16766	64629	324	49	87482
1989	1481	5649	19273	70971	446	26	97846
1990	1559	6093	19068	78212	318	10	105260
1991	1959	6933	19902	71651	331	85	100861

APPENDIX 2.8

Employment in the Organised Sector—Kerala

(Index Base 31-3-85=100)

Year ending as on 31st December	Public Sector		Private Sector		Total	
	No.	Index	No.	Index	No.	Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1970	293318	52.1	409562	80.1	702880	65.4
1975	418151	74.2	462712	90.5	880863	82.0
1980	496659	88.2	526459	103.0	1023118	95.2
1981	516478	91.7	528309	103.4	1044787	97.3
1982	536864	95.3	518282	101.4	1055146	98.2
1983	550670	97.8	519512	101.7	1070182	99.6
1984	565587	100.4	513503	100.5	1079090	100.5
1985	568713	101.0	507375	99.3	1076088	100.2
1986	576784	102.4	519115	101.6	1095899	102.0
1987	585391	104.0	508917	99.6	1094308	101.9
1988	602696	107.0	501653	98.2	1104949	102.8
1989	620254	110.1	486354	95.2	1106608	103.0
31-03-1990	625693	111.1	492754	96.4	1118447	104.1
1990(P)	634379	112.6	517815	101.3	1152194	107.3
1991(P)	633696	112.5	516867	101.3	1150563	107.1

(P)—Provisional

Source:—Directorate of Employment, Thiruvananthapuram.

APPENDIX 2.9

Unemployment Assistance Scheme—Kerala 1982-83 to 1991-92

(Rs. lakhs)

Year	Application received	No. of Beneficiaries	Amount disbursed
(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	205556	1095.65
1988-89	64887	215456	2353.77
1989-90	81159	246040	1996.36
1990-91	118279	264314	1934.87
1991-92*	99814	190375	133.26

Source: Directorate of Employment, Thiruvananthapuram. *As on September 1991

APPENDIX 2.10

Category-wise Distribution of Persons Deployed by ODEPEC during 1991

Category	No. of Persons Deployed	Category	No. of Persons Deployed
(1)	(2)	(1)	(2)
Doctors	7	Powerplant Technician	1
Staff Nurses	184	AC mechanic	2
Lab Technician	1	D & M Supervisor	1
Dietician	2	Technical controller	2
Food handler	3	Cooks	3
Welder	4	Mill machine operator	3
Engineers	5	Fabricator	1
Grit blaster	2	Mechanical formen	3
Crane operator	2	Rigger	1
Electric fitter	3	Draughtsman	3
Grinders	4	Plumber	1
Boiler maker	10	Tractor driver	2
Mechanical fitter	2	Auto electrician	1
Clerks	2	Geologist ^a	1
Diesel mechanic	4	Dentar	1
Console operator	1	Fork lift operator	2
Engine Operator	1	Salesman	14
Equipment operator	1	Driver	1
Pharmacist	3	General workers	37

Source. Overseas Development and Employment Promotion Consultants Limited.

APPENDIX 2.11

District-wise Distribution of Population, Sex Ratio, Growth rate and Density of Population (1991)

District	Total@ (Lakhs)	Male	Female	Sex Ratio (Females/ 1000 males)		Density of Popu- lation/ Sq. Km.		Decadal growth Rate of Population	
	1991	1991	1991	1981	1991	1981	1991	1971-81	1981-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Thiruvananthapuram	29.39	14.40	14.99	1030	1041	1184	1341	18.08	13.19
Kollam	23.98	11.74	12.24	1022	1043	873	963	18.27	10.25
Pathanamthitta	11.86	5.74	6.12	1056	1066	426	449	9.45	5.45
Alappuzha	19.91	9.66	10.25	1043	1061	1319	1408	11.62	6.71
Kottayam	18.19	9.07	9.12	1001	1005	771	826	10.29	7.20
Idukki	10.77	5.45	5.32	963	977	193	214	26.64	11.07
Ernakulam	27.98	13.98	14.00	998	1002	1053	1162	17.18	10.36
Thrissur	27.34	13.10	14.24	1100	1088	805	902	14.60	12.08
Palakkad	23.76	11.50	12.26	1056	1065	456	530	21.30	16.23
Malappuram	30.93	15.06	15.87	1052	1054	677	871	29.43	28.74
Kozhikode	26.13	12.87	13.26	1020	1031	958	1115	23.25	16.37
Wayanad	6.71	3.41	3.30	949	967	260	315	33.87	21.15
Kannur	22.45	10.92	11.53	1040	1055	651	757	24.34	16.27
Kasaragod	10.71	5.28	5.43	1020	1027	438	537	27.78	22.67
Kerala	290.11	142.18	147.93	1032	1040	655	747	19.24	13.98

@ Provisional

Source: Census of India 1991—Series 12 Kerala

APPENDIX 2.12

Birth, Death and Infant Mortality Rates of Kerala and All India

Year	Kerala				India			
	Birth rate	Death rate	Natural growth rate	Infant death rate	Birth rate	Death rate	Natural growth rate	Infant death rate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1980	26.8	7.0	1.98	40	33.7	12.6	2.11	114
1981	25.6	6.6	1.90	37	33.9	12.5	2.14	110
1982	26.2	6.6	1.96	30	33.8	11.9	2.19	105
1983	24.9	6.7	1.82	33	33.6	11.9	2.17	105
1984	22.7	6.4	1.63	29	33.8	12.5	2.13	104
1985	22.9	6.4	1.65	32	32.7	11.7	2.10	95
1986	22.5	6.1	1.64	27	32.6	11.1	2.15	96
1987	21.7	6.1	1.56	26	32.2	10.9	2.13	95
1988	20.3	6.4	1.39	24	31.5	11.0	2.05	94
1989	20.3	6.1	1.42	22	30.6	10.3	2.03	91
1990	19.0	5.9	1.31	17	29.9	9.6	2.03	80

Source: (1) Statistics for Planning 1998.

(2) Sample Registration Bulletin, June 1991.

(3) Directorate of Economics and Statistics

APPENDIX 2.13

Provisional Population of India/States/Union Territories 1991

States/UTs	Population (lakhs)					Sex Ratio		Density		Growth Rate		Literacy Rates	
	Total 1981	Total 1991	Share (%)	Male 1991	Female 1991	1981	1991	1981	1991	1971-1981	1981-1991	1981	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
India	6833.29	8439.31	100.00	4375.98	4063.33	934	929	216	267	24.66	23.50	43.56	52.11
Andhra Pradesh	535.50	663.05	7.86	336.24	326.81	975	972	195	241	23.10	23.82	35.66	45.11
Arunachal Pradesh	6.32	8.58	0.10	4.61	3.97	862	861	8	10	35.15	38.86	25.54	41.22
Assam	180.41	222.95	2.64	118.80	107.15	NA	925	230	284	23.36	23.58	NA	53.42
Bihar	699.13	863.39	10.23	451.47	411.92	946	912	402	497	24.06	23.49	32.03	38.54
Goa	10.08	11.69	0.14	5.94	5.75	975	969	272	316	26.74	15.96	65.71	76.96
Gujarat	340.86	411.74	4.88	212.72	199.02	942	936	174	210	27.67	20.80	52.21	60.91
Haryana	129.22	163.18	1.93	87.05	76.12	870	874	292	369	28.75	26.28	43.85	55.33
Himachal Pradesh	42.81	51.11	0.61	25.61	25.50	973	996	77	92	23.71	19.39	51.17	63.54
Jammu & Kashmir	59.87	77.19	0.91	40.14	37.05	892	923	59	76	29.69	28.92	NA	NA
Karnataka	371.36	448.17	5.31	228.61	219.56	963	960	194	234	26.75	20.69	46.20	55.98
Kerala	254.54	290.11	3.44	142.18	147.93	1032	1040	655	747	19.24	13.98	81.56	90.59
Madhya Pradesh	521.79	661.36	7.84	342.32	319.04	941	932	118	149	25.27	26.75	34.22	43.45
Maharashtra	627.84	787.07	9.33	406.52	380.55	937	936	204	256	24.57	25.36	55.83	63.05
Manipur	14.21	18.27	0.22	9.32	8.95	971	961	64	82	32.46	28.56	49.61	60.96
Meghalaya	13.36	17.61	0.21	9.04	8.56	954	947	60	78	32.04	31.80	42.02	48.26
Mizoram	4.94	6.86	0.08	3.57	3.30	919	924	23	33	48.55	38.98	74.26	81.23
Nagaland	7.75	12.16	0.14	6.43	5.72	863	890	47	73	50.05	56.86	50.20	61.30
Orissa	263.70	315.12	3.73	159.80	155.32	981	972	169	202	20.17	19.50	40.96	48.55
Punjab	167.89	201.91	2.39	106.95	94.96	879	888	333	401	23.89	20.26	48.12	57.14
Rajasthan	342.62	438.81	5.20	229.36	209.45	919	913	100	128	32.97	28.07	30.09	38.81
Sikkim	3.16	4.04	0.05	2.15	1.89	835	880	45	57	50.77	27.57	41.57	56.53
Tamil Nadu	484.08	556.38	6.59	282.18	274.20	977	972	372	428	17.50	14.94	54.38	63.72
Tripura	20.53	27.45	0.33	14.11	13.34	946	946	196	262	31.92	33.69	50.10	60.39
Uttar Pradesh	1108.63	1387.60	16.44	737.46	650.14	885	882	377	471	25.49	25.16	33.33	41.71
West Bengal	545.81	679.83	8.06	354.62	325.21	911	917	615	766	23.17	24.55	48.64	57.72
Union Territories													
Andaman & Nicobar Island	1.89	2.78	0.03	1.53	1.25	760	820	23	34	67.93	47.29	63.16	73.74
Chandigarh	4.52	6.41	0.08	3.57	2.83	769	793	3961	5620	75.55	41.88	74.81	78.73
Dadra & Nagar Haveli	1.04	1.39	0.02	0.71	0.68	974	953	211	282	39.78	33.63	32.70	39.45
Daman & Diu	0.79	1.01	0.01	0.51	0.50	1062	972	705	906	26.07	28.43	59.91	73.58
Delhi	62.20	93.70	1.11	51.21	42.50	808	830	4194	6319	53.00	50.64	71.93	76.09
Lakshadweep	0.40	0.52	0.01	0.27	0.25	975	944	1258	1615	26.53	28.40	68.42	79.23
Pondicherry	6.04	7.89	0.09	3.98	3.91	985	982	1229	1605	28.15	30.60	65.14	74.91

Note : Figure for Jammu & Kashmir is the projected figure as the census enumeration has not been conducted.

(*) Percentage of literates to estimated population aged 7 and above.

In 1981 Census was not conducted in Assam. Based on the 1971 census and the 1991 census provisional results, the population as of 1981 has been interpolated.

Source : Census of India 1991—Provisional Population totals.
1991 Census: First Results—CMIE, August 1991.

APPENDIX 2.14
Decadal Variation in Population since 1901

(Per cent)

Districts	1901-1911	1911-21	1921-31	1931-41	1941-51	1951-61	1961-71	1971-81	1981-91*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Kasaragod	7.00	3.82	17.56	13.33	20.08	24.60	33.36	27.78	22.67
Kannur	6.73	2.37	14.52	12.16	21.68	30.24	31.82	24.34	16.27
Wayanad	9.85	2.69	8.26	15.89	59.17	62.60	50.35	33.87	21.15
Kozhikode	7.34	3.55	17.51	11.95	25.14	25.71	29.81	23.25	16.37
Malappuram	9.64	2.17	14.44	11.73	17.67	20.67	33.80	29.43	28.74
Palakkad	7.31	4.18	10.22	8.90	18.45	12.79	23.06	21.30	16.23
Thrisur	12.65	5.72	22.14	16.17	21.53	20.32	26.09	14.60	12.08
Ernakulam	13.78	7.35	24.50	19.29	18.88	21.87	27.38	17.18	10.36
Idukki	108.88	9.23	72.58	30.17	35.66	74.72	32.18	26.64	11.07
Kottayam	8.31	19.97	32.38	21.65	20.11	16.03	17.13	10.29	7.20
Alapuzha	14.83	18.53	24.75	13.63	18.58	20.45	19.01	11.62	6.71
Pathanamthitta	14.78	18.56	27.24	20.51	24.78	23.50	15.75	9.45	5.45
Kollam	14.70	18.61	26.38	22.71	29.63	31.59	25.88	18.27	10.25
Thiruvananthapuram Kerala	17.54	17.02	28.58	18.46	30.81	31.38	26.03	18.08	13.19
	11.75	9.16	21.85	16.04	22.82	24.76	26.21	19.24	13.98

* Provisional population totals
 Source: Census of India 1991. Series-12

APPENDIX 2.15(a)

Estimated Annual Live Birth Rates for States and Union Territories 1986-89

(Per '000)

State/Union Territory	1986			1987			1988			1989		
	Combined	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Andhra Pradesh	31.6	32.4	28.7	30.3	30.9	28.2	27.4	27.6	26.3	25.9	26.3	24.4
Arunachal Pradesh	40.2	40.7	33.9	36.3	37.0	29.0	40.0	40.9	30.3	35.6	36.3	29.1
Assam	34.7	35.5	24.8	34.2	34.9	25.7	32.9	33.6	24.6	29.4	30.0	21.7
Bihar	36.5	37.2	29.8	36.6	37.3	30.1	37.3	38.1	30.4	34.3	35.1	27.6
Goa	20.2	19.9	20.8	18.9	19.4	18.0	17.7	17.9	17.4	15.7	15.3	16.7
Gujarat	32.2	32.9	30.8	30.8	31.6	29.0	29.5	30.1	28.1	28.7	29.6	26.6
Haryana	35.3	36.9	29.6	34.5	35.4	31.3	33.8	35.0	29.9	35.2	36.6	30.1
Himachal Pradesh	30.6	31.3	20.0	30.8	31.4	22.7	32.2	32.9	22.8	27.7	28.3	20.4
Jammu & Kashmir	33.4	35.6	25.4	31.0	32.6	25.1	33.1	35.5	24.0	30.1	31.8	23.3
Karnataka	29.0	29.9	26.8	28.9	29.9	26.3	28.7	30.1	24.9	28.0	29.1	25.1
Kerala	22.5	22.4	23.0	21.7	21.5	22.3	20.3	20.0	21.4	20.3	20.2	20.5
Madhya Pradesh	37.2	39.0	30.1	36.4	37.5	31.9	37.0	38.4	31.2	35.5	36.7	30.3
Maharashtra	30.1	31.7	27.4	28.9	30.2	26.6	29.4	31.4	25.8	28.5	30.6	24.6
Manipur	25.7	27.4	20.2	25.9	27.7	19.9	25.8	27.7	19.6	22.8	24.8	16.5
Meghalaya	35.4	38.3	21.7	34.9	38.6	17.6	36.4	40.5	17.7	31.1	33.6	19.0
Nagaland	25.2	26.6	18.6	21.7	23.7	13.0	22.3	23.8	15.5	19.7	20.8	14.9
Orissa	32.5	33.2	26.8	31.0	31.6	25.7	31.9	32.5	26.5	30.5	31.1	25.0
Punjab	28.7	29.0	27.6	28.7	28.9	27.9	28.5	28.9	27.5	28.3	28.7	27.5
Rajasthan	36.4	37.9	29.8	35.1	36.3	29.8	33.3	34.4	28.4	34.2	35.4	28.8
Sikkim	32.1	33.8	24.4	33.3	34.6	27.2	33.8	38.5	25.0	31.4	32.8	24.5
Tamil Nadu	23.8	24.1	23.1	24.0	24.1	23.7	22.7	23.4	21.4	23.1	23.5	22.4
Tripura	28.5	29.1	22.4	28.2	29.1	19.5	26.6	27.5	17.8	25.7	26.6	16.8
Uttar Pradesh	37.5	39.1	30.7	37.9	39.3	32.1	37.1	38.2	32.1	37.0	38.8	29.2
West Bengal	29.7	33.5	20.1	30.7	34.6	20.9	28.4	32.1	19.1	27.2	30.7	18.4
Andaman & Nicobar Islands	25.5	27.0	20.6	26.9	28.8	20.1	22.1	23.4	18.1	20.5	21.7	16.3
Chandigarh	23.7	29.6	23.2	23.9	29.8	23.4	22.4	26.0	22.1	22.5	29.4	22.0
Dadra & Nagar Haveli		43.4			35.8			38.3			35.6	
Daman & Diu	30.5	37.2	21.5	27.2	31.8	20.3	28.1	35.7	16.7	27.9	36.7	14.2
Delhi	29.5	35.9	29.0	30.4	33.6	30.2	28.6	30.6	28.4	27.2	33.2	26.7
Lakshadweep	32.1	37.0	26.8	30.5	34.7	25.9	25.5	25.8	25.2	28.8	34.8	22.3
Pondicherry	22.5	23.4	21.8	22.4	22.6	22.2	22.5	24.0	21.4	21.1	20.0	22.1
India	32.6	34.2	27.1	32.2	33.7	27.4	31.5	33.1	26.3	30.6	32.2	25.2

Sources: Sample Registration Bulletin, June 1991.

APPENDIX 2.15 (b)

Estimated Annual Death Rates for States and Union Territories 1986-1989

(Per '000)

State/Union Territory	1986			1987			1988			1989		
	Combined	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban	Combined	Rural	Urban
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Andhra Pradesh	9.9	10.7	7.1	9.9	10.7	7.3	10.2	10.9	7.4	9.5	10.2	6.7
Arunachal Pradesh	15.0	15.9	4.6	13.2	14.2	2.6	17.2	18.4	5.0	14.2	15.1	4.7
Assam	12.6	12.9	7.9	11.6	11.9	8.1	11.8	12.1	7.9	10.4	10.6	7.6
Bihar	13.8	14.4	8.8	13.1	13.6	8.0	12.6	13.0	8.1	12.1	12.5	7.9
Goa	7.6	7.9	6.9	7.5	8.5	5.4	7.9	8.5	6.8	7.9	8.2	7.3
Gujarat	10.5	11.3	8.6	9.8	10.8	7.6	11.00	11.8	9.2	9.7	10.0	8.9
Haryana	8.7	9.2	6.6	8.8	9.4	6.9	9.8	10.4	7.6	9.0	9.0	6.6
Himachal Pradesh	8.7	8.8	7.2	8.5	8.7	5.3	9.6	9.9	5.0	8.7	8.9	6.1
Jammu & Kashmir	8.6	9.0	6.8	7.7	8.0	6.4	8.4	9.1	6.0	7.6	7.9	6.4
Karnataka	8.7	9.4	6.8	8.7	9.7	6.1	8.8	9.5	7.0	8.8	9.6	6.5
Kerala	6.1	6.0	6.9	6.1	6.1	6.2	6.4	6.3	6.7	6.1	6.0	6.1
Madhya Pradesh	13.6	14.8	8.8	13.3	14.6	8.0	14.3	15.4	9.8	12.9	13.9	8.6
Maharashtra	8.4	9.7	6.1	8.3	9.5	6.1	8.9	10.1	6.7	8.0	8.9	6.3
Manipur	6.7	7.1	5.2	5.6	5.9	4.5	6.8	7.3	5.3	6.8	7.0	6.1
Meghalaya	10.1	11.2	5.3	9.1	10.2	3.6	9.1	10.6	2.7	11.3	12.6	4.7
Nagaland	5.9	6.6	2.7	4.9	5.5	2.6	5.0	5.7	1.7	4.1	4.7	1.3
Orissa	13.0	13.5	8.1	13.1	13.7	7.8	12.3	12.8	7.1	12.7	13.2	8.1
Punjab	8.2	8.7	6.6	8.1	8.5	7.1	8.4	8.8	7.2	8.2	8.7	6.8
Rajasthan	11.7	12.5	8.4	11.6	12.5	7.8	14.0	15.2	8.7	10.7	11.4	7.8
Sikkim	11.7	12.9	6.1	10.3	11.4	5.4	10.1	11.1	5.5	9.1	10.1	4.3
Tamil Nadu	9.5	10.7	7.1	9.9	11.1	7.6	9.3	10.3	7.3	8.7	9.7	6.8
Tripura	10.3	10.5	9.2	9.2	9.5	6.3	8.1	8.5	4.6	7.7	7.9	5.7
Uttar Pradesh	14.6	15.7	10.0	14.5	15.5	9.9	13.2	14.1	9.4	12.6	13.7	8.2
West Bengal	8.8	9.6	6.9	8.8	9.7	6.5	8.4	9.4	5.9	8.8	9.5	7.0
Andaman & Nicobar Islands	7.8	8.5	5.5	6.1	6.5	4.5	6.4	7.1	4.2	5.9	6.6	3.4
Chandigarh	4.6	4.6	4.6	3.8	5.8	3.7	4.7	6.0	4.6	4.0	6.9	3.8
Dadra & Nagar Haveli		9.4			11.3			9.8			8.7	
Daman & Diu	8.1	8.9	7.1	7.1	8.6	4.8	8.9	10.5	6.6	8.3	7.9	8.9
Delhi	7.3	8.7	7.2	7.5	8.5	7.4	7.6	8.3	7.6	6.6	7.7	6.5
Lakshadweep	4.9	5.4	4.2	6.3	6.8	5.7	6.6	6.2	7.0	6.0	8.5	3.1
Pondicherry	8.3	8.7	8.0	8.0	8.9	7.3	7.9	8.7	7.2	7.8	8.2	7.4
India	11.1	12.2	7.6	10.9	12.0	7.4	11.0	12.0	7.7	10.3	11.1	7.2

Source: Sample Registration Bulletin, June 1991.

APPENDIX 2.16

Estimated Infant Mortality Rates for Major States: 1989

States	Rural	Urban	Combined
(1)	(2)	(3)	(4)
Andhra Pradesh	88	53	81
Assam	93	63	91
Bihar	93	63	91
Gujarat	92	70	86
Haryana	88	58	82
Himachal Pradesh	78	33	75
Jammu & Kashmir	68	55	66
Karnataka	89	53	80
Kerala	23	15	21
Madhya Pradesh	125	78	117
Maharashtra	66	44	59
Orissa	125	78	121
Punjab	71	4	64
Rajasthan	103	58	96
Tamil Nadu	80	43	68
Uttar Pradesh	126	75	118
West Bengal	83	53	77
India	98	58	91

Source: Sample Registration Bulletin, June 1991.

APPENDIX 3.1

Wholesale Price Index of Agricultural Commodities Kerala 1991

(Base 1952-53=100)

Crops	January	February	March	April	May	June	July	August	September	October	November	December	Average
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1. Rice*	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1	638.1
2. Molasses	1148.7	1160.3	1108.2	1098.6	1059.4	1077.1	1043.4	1034.4	991.5	948.2	1053.7	1011.4	1061.2
3. Condiments & Spices	1209.2	1267.6	1510.1	1819.9	2123.0	1986.1	1557.1	1476.9	1321.0	1365.9	1436.4	1441.7	1542.4
4. Fruits & Vegetables	1461.7	1466.4	1482.6	1443.8	1434.4	1368.1	1433.5	1456.4	1442.5	1468.0	1471.5	1462.8	1449.3
5. Food Crops	886.7	897.4	938.0	980.7	1028.2	995.2	935.0	926.1	896.7	906.9	922.4	920.4	936.1
6. Oil Seeds	2034.0	2120.0	2098.3	2052.0	2001.8	2095.5	2147.3	2186.5	2272.1	2456.7	2711.6	2708.8	2240.4
7. Plantation Crops	899.1	897.7	898.9	908.8	898.2	884.6	913.0	882.5	856.6	885.8	862.0	870.1	888.1
8. Non Food Crops	1691.3	1750.9	1736.1	1706.8	1668.5	1729.8	1774.5	1792.7	1844.6	1982.3	2153.0	2153.5	1832.0
All Crops	1180.4	1208.9	1229.3	1245.7	1261.9	1263.3	1241.4	1242.4	1242.7	1299.4	1371.6	1370.5	1268.1

* Price fixed by Government.

Source: Department of Economics and Statistics

APPENDIX 3.2

Average Retail Prices of Essential Commodities for the Year 1991

Sl. No. (1)	Commodities (2)	Unit (3)	(Rs.)											
			January (4)	February (5)	March (6)	April (7)	May (8)	June (9)	July (10)	August (11)	September (12)	October (13)	November (14)	December (15)
1.	Rice (O.M.)	kg.	5.54	5.54	5.45	5.50	5.52	5.79	5.92	6.08	5.99	6.32	6.82	6.99
2.	Greengram	"	11.26	11.38	11.02	11.38	11.66	11.55	11.78	11.85	11.34	11.44	11.61	11.99
3.	Black gram (Split without husk)	"	13.23	13.56	13.60	13.68	14.11	14.35	14.61	14.96	14.93	14.47	14.02	13.85
4.	Red gram	"	8.74	8.62	8.51	8.49	8.64	9.06	9.03	9.50	9.72	9.72	9.36	9.34
5.	Dhall	"	17.38	17.64	17.28	17.38	17.54	18.34	18.94	20.09	20.76	21.01	20.58	20.28
6.	Sugar	"	8.88	8.58	8.34	8.74	9.13	9.10	9.04	8.98	8.59	8.29	8.34	8.46
7.	Milk (Cow's)	Litre	5.51	5.75	5.82	5.82	5.82	5.82	5.82	5.86	5.86	6.00	6.54	6.75
8.	Tea (Kannan Devan)	kg	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50	29.50
9.	Coffee Powder (Green Label)	kg	23.01	23.14	23.15	23.50	22.96	22.64	22.32	22.21	22.55	23.20	23.75	24.29
10.	Baby Food	each	59.93	60.36	60.64	60.86	62.79	65.29	67.71	72.21	73.57	73.57	74.00	74.08
11.	Egg (Hen's)	Doz.	8.98	8.41	8.33	8.35	10.14	9.34	11.41	9.48	9.46	9.39	11.17	10.57
12.	Mutton (Without bones)	kg.	39.43	39.93	40.14	41.07	41.71	42.14	42.36	42.21	42.64	42.79	43.79	44.36
13.	Coconut Oil	"	41.79	41.36	37.27	37.65	36.41	41.80	42.78	45.04	47.09	52.54	56.99	56.04
14.	Groundnut Oil	"	43.01	44.92	43.55	43.60	42.27	42.90	42.81	44.33	44.18	44.53	44.37	44.46
15.	Refined Oil	kg.	52.80	56.89	61.17	62.57	63.44	63.07	68.03	62.56	63.28	64.05	65.18	65.18
16.	Gingelly Oil	"	43.94	44.84	43.29	42.64	39.87	39.58	39.26	39.63	39.47	42.41	43.96	44.84
17.	Coconut (Without husk)	100Nos.	367.50	373.21	355.36	351.43	343.93	363.21	373.07	386.07	402.50	446.43	477.14	472.14
18.	Corriander	kg.	14.36	14.54	14.89	14.89	14.64	15.04	14.97	15.83	17.04	17.14	17.54	17.61
19.	Chillies (dry)	"	23.79	23.43	27.21	29.21	29.86	37.14	39.43	49.29	56.21	56.55	60.89	54.14
20.	Onion	"	5.45	5.19	5.72	7.44	8.74	7.11	6.28	4.87	5.09	6.50	5.90	4.26
21.	Tamarind	"	12.71	11.82	11.71	11.50	11.64	11.64	11.82	12.07	12.11	12.25	12.23	12.39
22.	Chenai	"	2.54	2.71	2.91	3.54	5.29	5.43	4.75	4.39	3.87	3.82	3.71	3.79
23.	Tapioca (Raw)	"	2.18	2.15	2.14	2.07	2.04	1.95	2.00	2.03	2.11	2.09	2.16	2.16
24.	Potato	"	4.98	3.80	3.80	4.25	4.80	5.41	4.55	4.08	4.28	5.01	5.34	5.79
25.	Colecanda	"	5.18	4.43	4.79	5.55	5.95	6.36	6.10	6.63	5.54	5.31	5.25	5.21
26.	Banana	"	5.13	5.24	4.99	4.77	6.17	5.60	5.78	7.06	6.62	6.74	6.42	6.64

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
27.	Onion (Big)	"	7.84	4.02	3.64	3.90	3.52	3.80	3.76	5.54	5.09	4.61	3.74	3.22
28.	Brinjal	"	4.29	4.65	4.18	4.29	4.92	4.43	4.46	4.61	4.09	4.46	5.21	4.93
29.	Pumpkin	"	3.14	2.82	2.86	3.00	3.25	3.50	3.61	3.50	2.91	3.04	2.82	3.04
30.	Cucumber	"	3.07	2.54	2.54	2.68	3.29	3.79	4.04	4.54	3.19	3.39	2.71	2.68
31.	Ladies finger	"	3.93	4.36	5.11	5.00	4.86	3.93	4.93	4.04	4.64	4.21	4.64	4.75
32.	Bittergourd	kg.	6.46	6.68	6.75	7.50	9.69	11.23	10.21	7.71	6.29	7.61	7.75	6.50
33.	Ashgourd	"	2.64	2.47	2.25	2.43	2.58	3.57	3.75	3.75	2.68	2.68	2.32	2.50
34.	Chillies (Green)	"	7.04	7.54	9.14	8.07	8.57	15.29	12.71	15.57	11.07	9.29	9.93	11.14
35.	Plantain (Green)	"	3.80	3.50	3.82	3.71	3.89	3.89	3.95	4.57	4.21	4.18	4.00	4.07
36.	Cabbage	"	3.68	4.07	4.14	4.00	4.86	7.68	6.14	5.07	4.54	4.18	4.71	4.39
37.	Snake gourd	"	3.69	3.50	3.54	3.71	4.11	5.32	4.86	5.50	3.87	4.21	4.21	4.18
38.	Tobacco	"	23.14	23.35	23.21	23.21	23.64	24.29	24.25	24.29	23.91	23.75	22.73	22.54
39.	Mundu (mul)	each	24.56	24.92	25.15	25.57	25.47	25.47	26.42	27.22	27.21	27.63	27.95	28.31
40.	Washing Soda	kg.	7.30	7.34	7.34	7.51	7.55	7.64	8.12	8.34	8.23	8.26	8.42	8.39
41.	Washing Soap (Sunligh)	each	3.95	3.95	3.98	4.00	4.19	4.50	4.70	4.39	4.41	4.41	5.00	4.48
42.	Toilet Soap (Lux)	each	4.46	4.48	4.48	4.54	4.60	4.67	4.73	4.76	4.78	4.77	4.94	5.07
43.	Tooth Paste	(100 gm.)	9.89	10.25	10.25	10.33	10.96	10.36	10.56	10.69	10.74	10.78	11.11	11.56
44.	Razor blade	5 Nos.	3.60	3.60	3.66	3.69	3.74	3.76	3.79	3.89	4.19	4.19	4.09	4.19
45.	Crocin	2 tabs.	0.52	0.52	0.22	0.52	0.53	0.54	0.54	0.54	0.54	0.55	0.56	0.56
46.	Electric bulb	each	7.07	7.17	7.21	7.33	7.52	7.55	7.66	7.87	7.99	8.03	8.13	8.21
47.	Torch battery (Ordinary)	"	4.56	4.62	4.64	4.75	4.76	4.80	4.87	4.92	5.11	5.35	5.39	5.43
48.	Paper	24 Shec	4.25	4.25	4.26	4.20	4.51	4.54	4.54	4.57	4.69	4.64	4.70	4.70
49.	Firewood (Local split)	Qtl	70.00	71.00	71.00	70.67	72.33	73.17	73.17	68.00	73.17	74.17	74.17	72.50
50.	Cement(Sankar)	1 pkt.	103.43	103.50	103.64	103.64	105.96	107.35	108.49	109.92	109.99	103.49	106.03	106.12

Source: Department of Economics and Statistics

APPENDIX 3.3

Consumer Price Index (Cost of Living Index) Numbers for Agricultural and Industrial Workers, Kerala 1991.

Base (1970=100)

Centre	January	February	March	April	May	June	July	August	September	October	November
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Thiruvananthapuram	474	477	477	478	484	496	506	508	511	514	525
Kollam	488	491	491	492	500	514	526	527	530	533	543
Punalur	460	463	464	465	473	486	497	499	502	505	515
Alappuzha	467	470	470	471	479	492	503	504	507	511	521
Kottayam	475	479	480	481	487	499	509	509	511	514	525
Mundakayam	471	475	476	478	485	497	507	507	509	512	521
Munnar	462	466	467	468	473	485	495	497	500	502	509
Ernakulam	453	456	456	459	464	477	490	492	496	500	508
Chalakkudy	471	475	475	477	484	497	509	510	513	515	526
Thrissur	456	459	459	460	468	481	492	494	496	498	508
Palakkad	460	463	464	465	472	485	495	497	499	501	511
Malappuram	488	492	493	494	502	516	527	527	529	532	543
Kozhikode	475	478	479	481	486	499	509	511	515	518	526
Meppadi	485	489	490	491	500	512	522	523	526	529	539
Kannur	470	474	475	476	484	498	509	511	514	517	526

Source: Department of Economics and Statistics

APPENDIX 3.4

Index Number of Wholesale Prices by group and Sub Groups—All India

(Base 1981-82=100)

Item	Weight	1990												1991														
		October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	
All Commodities	100.00	184.6	185.1	186.6	189.6	191.6	191.7	192.3	195.7	200.1	205.8	210.3	208.6	209.2														
I. Primary Articles	32.29	185.6	186.7	188.6	193.0	196.6	195.6	198.0	201.5	209.9	215.4	222.7	220.6	221.8														
1. Food Articles	17.39	201.8	202.2	209.8	209.0	213.3	211.7	212.4	218.2	231.9	238.4	247.7	245.4	246.9														
(i) Food grains	7.92	179.5	179.7	182.3	192.5	198.9	196.8	191.2	188.4	193.7	199.6	214.8	217.4	210.8														
(a) cereals	6.93	170.4	170.5	174.5	185.5	192.3	190.9	185.1	180.8	185.5	192.2	207.8	210.7	210.8														
(b) pulses	1.09	236.0	237.0	231.5	234.3	240.4	233.9	229.7	235.5	244.7	245.7	258.4	259.3	254.4														
(ii) Fruits & Vegetables	4.09	208.0	207.7	202.8	201.8	205.5	205.4	218.1	237.8	269.2	272.8	277.2	269.2	269.9														
(iii) Milk and Milk products	1.96	209.5	205.8	208.5	211.3	216.5	218.7	224.8	230.1	233.2	236.0	233.0	222.2	237.5														
(iv) Eggs, Fish & Meat	1.78	200.5	203.4	206.7	205.0	201.7	201.6	198.8	207.7	223.2	225.7	224.5	220.7	219.3														
(v) Condiments & spices	0.95	265.2	280.2	295.6	302.9	315.7	318.9	315.6	347.3	378.6	389.4	433.9	443.0	440.4														
(vi) Other Food articles	0.69	314.5	306.6	309.4	316.4	304.3	278.6	280.4	261.0	302.8	311.5	296.5	283.4	289.6														
2. Non-Food Articles	10.08	194.0	197.3	200.5	205.8	209.6	209.3	215.8	216.2	218.5	224.0	231.5	228.5	229.7														
(i) Fibres	1.79	173.3	172.6	175.7	178.8	182.2	192.4	223.0	226.9	231.6	251.3	263.6	245.9	240.9														
(ii) Oil Seeds	3.86	197.7	201.8	204.1	213.2	219.7	213.2	211.0	213.0	217.7	225.1	236.7	240.4	245.8														
(iii) Other Non-Food articles	4.43	199.1	203.4	207.4	210.2	211.9	212.7	216.9	214.7	213.8	212.1	214.1	211.1	211.2														
3. Minerals	4.83	109.0	109.0	109.0	109.0	109.0	109.0	109.0	110.4	112.5	114.4	114.4	114.6	114.6														
Petroleum Crude & Natural Gas	4.27	99.5	99.5	89.5	99.5	99.5	99.5	99.5	99.5	101.4	101.4	101.4	101.4	101.4														
II Fuel, Power Light & Lubricants	10.66	185.3	185.5	186.0	187.3	187.6	188.6	188.7	189.5	189.5	196.9	197.5	197.8	198.4														
III Manufactured products	57.04	184.0	184.1	185.7	188.1	189.6	190.1	189.6	193.6	196.5	202.1	205.6	203.9	204.1														

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
1. Manufactured products (Itemwise)																
	(i)	10.14	185.6	183.8	183.0	189.0	192.2	190.7	191.6	196.2	200.8	206.0	211.0	209.6	209.9	
	(ii)	0.64	194.3	191.9	193.6	197.9	201.4	201.0	202.2	205.0	203.8	211.5	222.5	222.9	223.9	
	(iii)	4.06	160.7	155.6	148.3	146.9	146.1	145.1—	147.9	155.5	163.6	170.5	174.7	171.1	166.1	
2.	Beverage, Tobacco, Tobacco products	2.15	243.1	243.8	244.2	245.2	246.0	246.5	246.6	249.9	251.1	267.9	270.7	271.9	271.9	
3.	Textiles	11.54	171.5	171.6	173.4	175.1	175.6	177.4	175.6	179.8	181.2	185.6	189.9	187.3	186.6	
4.	Paper and paper products	1.99	217.8	219.0	231.6	235.3	235.3	235.3	243.9	236.0	248.2	262.4	268.1	267.6	267.6	
5.	Leather and Leather products	1.02	231.6	230.4	232.1	232.1	232.1	231.0	230.3	240.1	240.1	241.2	242.5	236.7	236.7	
6.	Rubber and plastic products	1.59	165.6	165.6	165.6	165.6	165.6	165.6	165.6	165.6	168.6	169.5	170.2	169.7	170.2	
7.	Chemical & Chemical products	7.36	149.2	149.1	149.2	151.0	153.0	153.9	153.5	155.9	158.5	168.4	170.4	190.6	172.4	
	(i)	1.75	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	136.2	136.2	136.2	136.2	
	(ii)	0.20	152.2	152.2	152.2	169.1	179.0	180.5	179.5	180.5	190.7	198.7	203.7	203.7	203.7	
	(iii)	1.06	150.0	150.0	150.0	150.5	150.8	151.6	153.0	155.1	158.5	160.0	160.2	160.7	160.7	
8.	Non-Metallic Minerals Products	2.48	186.3	186.7	188.0	189.8	193.7	196.0	197.5	213.4	216.4	218.8	220.9	204.3	204.2	
9.	Basic Metals, Alloys and Metal Products	7.63	222.7	222.7	224.5	226.1	227.7	227.8	226.9	228.1	229.9	233.2	235.3	233.0	233.5	
10.	Machinery and Machine Tools	6.27	179.3	181.9	185.5	187.6	187.8	188.5	188.0	194.2	197.9	204.2	208.6	208.4	208.5	
	(i)	Motor Vehicles, Motor Cycles, Scooters, Bicycles and parts	2.43	177.8	179.2	180.6	182.5	184.2	184.8	184.3	186.6	180.7	192.2	197.0	199.4	199.4
	(ii)	Other Miscellaneous Manufacturing Industries	0.97	118.4	118.4	118.4	121.5	122.1	123.0	123.0	123.8	123.8	129.4	127.1	127.1	

Source: RBI Bulletin

APPENDIX 3.5

Consumer Price Index for Industrial Workers—All India and Selected Centres

(Base 1982=100)

Centres	1990					1991							
	September	October	November	December	January	February	March	April	May	June	July	August	September
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
All India	191	195	198	199	202	202	201	202	204	209	214	217	221
Ahmedabad	195	198	199	201	208	209	207	208	209	213	219	225	226
Alwaye	173	173	179	180	184	184	182	186	188	195	198	193	200
Bangalore	180	182	184	189	196	197	196	197	199	205	203	207	209
Bombay	199	202	205	207	209	210	210	216	222	229	228	234	238
Culcutta	201	214	214	212	212	207	206	205	208	212	220	224	226
Coimbatore	175	178	183	181	182	187	188	189	192	197	196	197	201
Delhi	201	205	203	203	203	209	208	210	213	215	221	228	231
Hyderabad	179	182	184	187	191	192	190	191	192	199	204	211	214
Jamshedpur	185	191	196	194	195	197	195	197	196	199	202	208	215
Madras	185	187	193	195	200	201	197	197	201	207	211	210	211
Madurai	191	193	200	202	202	199	195	197	199	210	215	213	212
Mundakayam	181	180	187	192	194	193	190	193	194	200	206	206	210
Nagpur	199	201	203	204	213	214	212	212	215	219	224	230	234

Source: R.B.I. Bulletin

APPENDIX 3.6

Consumer Price Index Number for Agricultural Labourers—State Wise

(Base 1960-61=100)

State	1990					1991							
	September	October	November	December	January	February	March	April	May	June	July	August	September
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
All India	792	804	824	828	843	861	855	853	854	876	904	936	975
Andhra Pradesh	632	636	636	644	664	674	675	680	690	704	731	763	788
Assam	830	841	865	855	856	875	872	867	876	884	913	940	983
Bihar	820	837	860	867	863	877	879	870	873	906	930	961	1008
Gujarat	702	715	736	744	764	775	762	762	760	772	797	820	838
Jammu & Kashmir	823	838	842	843	870	885	865	853	843	859	867	894	932
Karnataka	757	764	786	799	820	831	827	842	865	870	899	926	964
Kerala	900	891	920	951	958	962	964	962	963	984	995	997	1018
Madhyapradesh	821	838	856	856	897	919	896	872	864	888	919	947	980
Maharashtra	739	747	780	790	819	830	831	846	862	895	930	948	987
Orissa	799	808	823	813	831	860	858	851	858	893	944	1044	1079
Punjab	895	915	918	921	953	990	971	957	928	943	961	1005	1048
Rajasthan	854	858	862	872	915	943	937	907	881	907	993	964	987
Tamil Nadu	762	757	779	781	780	799	795	793	816	832	848	861	887
Uttar Pradesh	910	941	972	955	977	1009	1019	996	963	992	1029	1073	1132
West Bengal	808	825	846	853	865	874	860	859	855	869	898	932	984

Source: R B I Buullottin

APPENDIX 3.7

Consumer Price Index Number for Urban Non manual Employees—All India and Selected Centres

State	1990						1991					
	Sept- ember	Octo- ber	Novem- ber	Decem- ber	Janu- ary	Febru- ary	March	April	May	June	July	August
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
All India	159	162	164	165	169	169	169	170	171	174	179	183
Bombay	151	153	158	160	163	163	163	167	168	173	175	179
Delhi-New Delhi	157	159	158	158	161	161	161	163	165	167	174	179
Calcutta	165	169	168	169	170	169	168	168	171	174	177	181
Madras	166	167	171	173	177	178	176	176	179	182	185	186
Hyderabad & Secunderabad	162	165	167	169	173	172	172	172	173	177	182	186
Bangalore	158	161	162	165	168	170	170	170	172	174	178	181
Lucknow	157	163	165	164	165	166	168	167	169	172	176	183
Ahamadabad	151	151	153	154	161	162	162	162	162	163	168	173
Jaipur	163	163	165	166	174	175	176	172	175	176	185	188
Patna	165	170	173	171	176	178	178	175	177	180	188	194
Srinagar	150	150	150	150	150	150	150	150	150	150	150	150
Trivandrum	148	149	153	154	157	158	160	159	160	164	166	169
Calcutta—Bhuvanewar	149	154	158	162	163	162	160	160	163	165	175	180
Bhopal	163	166	169	168	171	174	175	175	176	179	189	195
Chandigarh	176	178	178	178	182	183	184	187	187	189	195	199
Shillong	179	181	184	184	186	187	186	187	187	188	193	195

Source: RBI Bulletin

APPENDIX 3.8

Whole Sale Price Index of Agricultural Commodities—Kerala 1981-91

(Base 1952-53=100)

Group	Weight	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
A. Food Crops	63.5	417	413	499	597	582	679	709	696	725	835	936
1. Food grains (Rice)	40.4	319	319	406	442	448	501	529	533	544	592	638
2. Molasses	2.0	606	412	626	629	709	689	626	881	909	1082	1061
3. Condiments & Spices	10.4	442	439	548	854	637	1324	1435	775	754	1093	1542
4. Fruits & Vegetables	10.7	728	740	779	913	1008	759	858	1199	1342	1450	1449
B. Non Food Crops	36.5	680	672	930	1477	966	1009	1324	1428	1215	1365	1832
1. Oil Seeds	25.5	819	796	1112	1863	1142	1227	1650	1795	1411	1562	2240
2. Plantation Crops	11.0	358	386	508	585	560	509	568	578	761	910	888
C. All Crops	100.0	513	507	656	918	722	800	933	963	904	1028	1263

Source: Department of Economics & Statistics

APPENDIX 4.1

Station-wise Average Monthly Rainfall (mm)—year 1991

Sl. No.	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)	(15)
	Thiruvananthapuram	026	034	045	118	114	869	315	150	008	304	132	22	2137
	Kollam	097	005	085	139	118	1158	485	236	016	481	207	08	3036
	Alappuzha	002	001	042	113	164	1087	495	445	028	236	064	04	2680
	Pathanamthitta	039	020	118	179	165	1165	613	471	043	438	125	00	3374
	Kottayam	000	012	049	086	164	1258	587	436	057	243	060	02	2954
	Idukki	010	001	077	102	123	1380	1235	614	126	345	091	02	4104
	Kochi	000	000	031	080	126	1321	649	566	028	401	122	04	3328
	Thrissur	004	000	002	081	092	1087	953	630	061	316	166	00	3393
	Palakkad	012	000	004	091	049	612	842	374	072	239	108	00	2402
	Kozhikode	000	000	003	098	069	1169	995	602	016	257	056	00	3265
	Malappuram	000	000	..	116	059	992	951	469	032	269	110	02	3000
	Wayanad	000	011	012	109	125	796	1036	407	053	179	065	00	2792
	Kannur	000	000	008	031	170	1052	1317	614	062	233	080	00	3569
	Kasaragod	000	000	000	022	128	1232	1239	574	095	128	013	00	3430

APPENDIX 4.2

Trend of HYV coverage in Kerala 1980-81 to 1990-91

(in Ha.)

Years	Coverage in HYV.				Percentage to total coverage in HYV area under rice			
	Autumn	Winter	Summer	Total	Autumn	Winter	Summer	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1980-81	136236	92391	51098	279725	48.70	33.03	18.27	100
1981-82	138941	73579	47183	250703	53.50	28.33	18.17	100
1982-83	113088	51867	31440	196395	57.58	26.41	16.01	100
1983-84	101810	62063	48477	212350	47.94	29.23	22.83	100
1984-85	112400	63687	44452	220539	50.97	28.88	20.15	100
1985-86	83782	40650	38846	163278	51.31	24.90	23.79	100
1986-87	80076	44604	41253	165933	48.26	26.88	24.86	100
1987-88	54760	33763	31311	119744	45.70	28.20	26.10	100
1988-89	62354	37971	36691	137016	45.52	27.71	26.77	100
1989-90	78997	36910	39718	155625	50.80	23.70	25.50	100
1990-91	80025	40005	42786	162816	49.15	24.57	26.28	100

APPENDIX—4.3 (a)

Agency-wise Disbursement of Refinance

Assistance by NABARD

(Rs. in crores)

Sl. No.	Agencies	1989-90		1990-91	
		Al India	Kerala	All India	Kerala
(1)	(2)	(3)	(4)	(5)	(6)
1.	Kerala State Co-operative Agricultural and Rural Development Bank	559	29.92	565	29.68
2.	Commercial Banks	741	26.99	934	31.37
3.	Kerala State Co-operative Bank	115	18.25	114	16.16
4.	Regional Rural Banks	287	4.92	289	4.38
	Total	1702	80.08 (4.7%)	1902	81.59 (4.28%)

APPENDIX—4.3 (b)

Purpose-wise Disbursement by NABARD

Sl. No.	Purpose	Amount Disbursed (Rs. crores)			
		1989-90	%	1990-91	%
(1)	(2)	(3)	(4)	(5)	(6)
1.	Plantation/Horticulture	26.11	32.6	22.49	27.6
2.	IRDP	16.31	20.4	15.70	19.2
3.	Minor Irrigation	10.94	13.7	15.12	18.5
4.	Non-Farm sector	10.85	13.5	13.12	16.1
5.	Others	15.87	19.8	15.16	18.6
	Total	80.08	100.0	81.59	100.0

APPENDIX—4.4

Selected Indicators of the Performance of Agricultural Credit Societies

Sl. No.	Indicators	As on 30-6-89	As on 30-6-90	As on 30-6-91
(1)	(2)	(3)	(4)	(5)
1.	Average Membership per Society (No.)	4942	5291	5654
2.	Average Share Capital per Society (Rs. lakhs)	4.37	5.06	5.47
3.	Average Deposit per Society (Rs. lakhs)	40.95	50.46	50.77
4.	Average Deposit per Member (Rs.)	829.00	954.00	898.00
5.	Average Working Capital per Society (Rs. lakhs)	68.23	80.60	82.92
6.	Average Loan per Member (Rs.)	962.00	938.00	799.00
7.	Percentage of Borrowing Members to total Members (Borrowed during the year)	38.15	37.30	44.60
8.	Average loan Advanced per Advancing Society (Rs. lakhs)	47.54	49.64	47.25
9.	Average loan Advanced per Borrowing Member (Rs.)	2521	2517	1792
10.	Percentage of Overdue to Outstanding	20.13	26.2	26.9
11.	Percentage of Overdue to Demand	19.95	26.80	31.75

APPENDIX—4.5

Selected Indicators of the Credit Operations of the Primary Agricultural Credit Societies

Sl. No.	Indicators	As on 30-6-89	As on 30-6-90	As on 30-6-91 (Provisional)
(1)	(2)	(3)	(4)	(5)
1.	No. of societies	1580	1582	1579
2.	No. of members (lakhs)	78.09	83.17	89.27
(a)	Of which SC „	7.38	8.14	8.26
(b)	Of which ST „	0.54	0.58	0.89
3.	Paid up share capital (Rs. lakhs)	6898	8008	8630
4.	Reserves „	5478	6461	4010
5.	Deposits „	64703	79833	80169
6.	Working capital „	107810	122511	130931
7.	Loans issued „	75118	78529	71352
	Short term „	61493	64211	56155
	Medium term „	11716	11869	15197
	Long term „	1909	2449	
8.	Loan outstanding (Rs. lakhs)	81432	93184	97466
9.	Loan overdue „	16391	24444	26217
10.	ST loan for agrl. purpose alone	26630	22795	NA
11.	ST loans for non-agrl. purposes	34863	41416	NA
12.	M.T. loans for agrl. purposes	4414	4670	NA
13.	M.T. loans for non-agrl. purpose	7302	7199	NA
14.	Value of fertilizers sold	4124	4501	NA
15.	Value of agrl. produce marketed through societies	4373	5835	NA
16.	Dormant societies No.	30	31	20
17.	Viable societies No.	NA	1496	NA
18.	Societies on profit No.	777	686	678
19.	Profit amount (Rs. lakhs)	935	844	NA
20.	Societies on loss No.	773	865	865
21.	Societies without loss or profit No.	30	31	36
22.	Societies having paid secretaries	1553	1558	1561
23.	Societies having godowns			
	Owned	1426	1413	NA
	Hired	551	576	NA

APPENDIX—4.6

Ordinary Loans Advanced by KSCADB

(Rs. in lakhs)

No. Sl.	Purpose	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)
1.	New wells	2.66	1.59	3.36
2.	New Tanks	..	..	..
3.	Pumpsets & Prisian wheels	2.31	6.42	4.17
4.	Agricultural Machinery	9.56	16.59	18.25
5.	Repairs to Wells & Tanks	1.29	5.65	0.92
6.	Field channels	..	..	..
7.	Cattle sheds and Farm houses	343.35	425.11	344.06
8.	Fencing	232.92	305.73	282.12
9.	Levelling & Bunding	280.40	371.96	306.19
10.	Terracing	75.21	107.04	85.14
11.	Drainage channels	5.98	4.80	1.49
12.	Plantation	94.40	150.19	124.61
13.	Other Major Programmes	31.38	87.15	52.46
	Total	1079.46	1482.23	1222.77

APPENDIX 4.7

*Scheme-Loans Advanced by Kerala State Co-operative
Agricultural and Rural Development Bank at Primary Level*

(Rs. lakhs)

Sl.No.	Schemes	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)
1.	Minor Irrigation	509.93	508.34	552.67
2.	Agricultural Machinery	155.93	106.83	165.41
3.	Plantation	1137.92	1235.70	1350.55
4.	Dairy	119.84	94.42	90.80
5.	Poultry	79.80	37.55	40.89
6.	Fisheries	40.65	39.74	34.62
7.	Goat Development	11.65	1.78	4.04
8.	Coconut and Fish Culture	2.46	..	..
9.	Gobar Gas/Bio gas	2.58	1.44	1.30
10.	Bullock and Bullock cart	1.13	0.54	0.15
11.	Marshy Land Reclamation/ inter space filling	79.02	113.49	88.96
12.	SADU	13.29	..	..
13.	Others	55.76	76.97	119.09
	Total	2209.96	2216.80	2448.12

APPENDIX 4.8

Details of Release of Assistance by NCDC During 1990-91

Sl.No.	Activity	Loan	Subsidy	Total
(1)	(2)	(3)	(4)	(5)
A. Central Sector Scheme				
1.	NCDC—III Storage Project	76.32	..	76.32
2.	EEC Coconut Development Project	472.44	313.09	785.53
3.	NCDC—III Training	..	45.46	45.46
4.	ICDP	..	1.09	1.09
5.	Rural Consumer	6.05	..	6.05
6.	Share Capital Participation in Weavers' Co-operative Spinning Mills	45.00	..	45.00
	Total—A	599.81	359.64	959.45
B. Corporation Sponsored Scheme				
1.	Margin Money to Marketing Federation	120.00	..	120.00
2.	Strengthening the Share Capital base of Primary Marketing Societies	36.00	..	36.00
3.	Assistance to Processing Units	88.54	..	88.54
4.	NCDC—III Storage Project	4.70	..	4.70
5.	NCDC—III Training	..	7.69	7.69
6.	Coconut Development Project	520.00	..	520.00
7.	Storage Normal	14.11	..	14.11
8.	ICDP	309.51	..	309.51
9.	Rural Consumer	4.60	..	4.60
10.	Student stores	5.26	0.65	5.91
11.	Fishery Co-operatives	448.72	75.28	524.00
12.	SC/ST Co-operatives	1.98	..	1.98
13.	Handloom Co-operatives	7.13	..	7.13
14.	Coir-Co-operatives	31.16	..	31.16
15.	Technical & Promotion Cell	..	2.72	2.72
16.	Assistance to computerisation	3.10	..	3.10
	Total—B	1594.81	86.34	1681.15
	Grand Total A+B			2640.60

APPENDIX 4.9

District Level Institutions under the Animal Husbandry Department as on 31-3-1991

Sl. No.	Name of Institution	Thiruvananthapuram	Kollam	Pathanamthitta	Alappuzha	Kottayam	Idukki	Earnakulam	Thrissur	Palakkad	Malappuram	Kozhikode	Wayanad	Kannur	Kasaragod	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1.	District Veterinary Centre	1	1	..	1	1	..	..	..	1	..	1	..	1	..	7
2.	Veterinary Poly Clinics	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.	Veterinary Dispensaries	56	47	30	34	39	36	60	55	39	38	37	15	38	28	552
5.	Intensive Cattle Development Project	1	1	1	..	..	..	1	..	1	..	1	..	1	..	7
6.	Regional Artificial Insemination Centre	5	4	3	2	2	..	1	1	2	1	1	1	4	1	28
7.	Veterinary Sub Centres/A. I. Centers/ICDP Sub Centres/All centres	124	99	100	38	66	13	38	48	49	60	51	35	71	24	816
8.	District Livestock Farms	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
9.	Jersey Farm	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
10.	Jersey Farm Extension Unit	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
11.	Buffalo Breeding Farm	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1
12.	Goat Farms	..	..	..	..	..	..	..	..	1	..	..	..	1	..	2
13.	Pig Farms	1	..	..	..	2	..	1	1	..	..	..	..	1	..	6
14.	Poultry Farms	2	1	..	..	1	1	1	..	1	1	1	..	1	..	10
15.	Central Hatchery	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1
16.	Livestock Management Training Centre	1	..	..	..	..	..	1	..	..	..	..	..	1	..	3
17.	Rinderpest Eradication Project	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
18.	Institute of Veterinary Biologicals	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
19.	Special Livestock Breeding Programme	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1
20.	Other Institutions	24	9	5	10	7	9	13	5	17	6	6	4	11	2	128
	Total	232	176	150	101	132	67	133	128	124	116	105	60	140	59	1723

Source: Animal Husbandry Department.

APPENDIX 4.10

Animal Husbandry Activities

Sl. No.	Activities	Unit	Performance for the years		
			1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)
1.	Cases Treated	Nos.	4147022	3621295	3866712
2.	Operations performed	"	123256	118580	121622
3.	Castrations done	"	28443	18391	18502
4.	Vaccinations done:				
	1. For Livestock	"	1648938	2012020	1942213
	2. For Poultry	"	3253458	3119808	4379700
5.	Anti Rabic Vaccinations done among dogs	"	19906	20861	19596
6.	Artificial Inseminations done	"	1200115	1267455	1312613
7.	Calvings Recorded	"	182615	243055	221876
8.	Chicks hatched out in the Departmental poultry farms	"	899200	799931	807400
9.	Eggs produced in the Departmental Poultry Farms	"	2155497	1771050	1857271
10.	Vaccines produced in the Veterinary Biologicals, Palode				
	1. For Poultry	Doses	5168100	6109900	7428500
	2. For Livestocks	"	1586480	2459120	1889700
11.	Poultry Feed produced in the Departmental production units	M.T.	1986	1001	1617

Sources: Department of Animal Husbandry

APPENDIX 4.11

District-wise Distribution of Fishermen Population in Kerala—1991-92

(Estimated)

Sl. No.	District	Marine				Inland			
		Male	Female	Children	Total	Male	Female	Children	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Thiruvananthapuram	47448	45894	65668	159010	347	354	449	1150
2.	Kollam	28360	26136	34759	89255	10334	9492	12046	32672
3.	Alappuzha	32876	32150	41345	106371	19585	18569	21160	59314
4.	Pathanamthitta	..	..	..	..	265	253	285	803
5.	Kottayam	..	..	..	..	7866	7512	8345	23723
6.	Idukki	..	..	..	..	..	..	..	..
7.	Ernakulam	22227	21740	25107	69074	21125	20272	20277	61674
8.	Thrisur	20324	20712	25352	66388	6283	6060	6578	18921
9.	Palakkad	..	..	..	..	118	137	253	508
10.	Malappuram	22285	22844	26772	71901	1292	1278	1488	4058
11.	Wayanad	..	..	..	..	285	273	350	908
12.	Kozhikode	29428	28550	36309	94287	3582	3416	4439	11437
13.	Kannur	15967	15543	18572	50082	325	284	235	844
14.	Kasaragod	13173	12813	15314	41900	269	234	195	698
	State	232088	226383	289198	747668	71676	68134	76900	216710

APPENDIX 4.12

Species-wise Composition of Marine Fish Landings in Kerala from 1980

Sl. No.	Species	(Qty. in tonnes)						
		1980	1985	1986	1987	1988	1989	1990
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Elasmobranches	6753	7966	6057	6579	6761	4680	6968
2.	Catfish	13783	1815	5084	8562	9960	4097	2739
3.	Chirocentrus	1002	5045	2237	992	736	1388	724
4.	(a) Oil Sardine	69667	106321	145259	109610	60508	184879	179276
	(b) Other sardine	11017	31465	24245	23469	12701	13752	12900
5.	Anchoviella	7772	19349	9500	11899	46007	45127	26880
6.	Thrissocii & other clupeoids	2241	4121	8049	5574	13867	13774	10611
7.	Perches	17806	500	6577	7225	32304	48986	67356
8.	Red mullets	1	11621	6329	316	9836	6017	6919
9.	Sciaenids	6164	3990	4601	4695	8470	11402	10868
10.	Ribbon Fishes	12937	3251	3536	4757	8952	7179	9751
11.	Carangids	59	1870	1852	2082	23852	37278	51708
12.	Leiognathus	4147	1536	3642	4341	6493	5354	6195
13.	Lactaritus	861	931	1194	983	835	1320	2340
14.	Pomfrets	907	988	1892	2013	1591	1739	2598
15.	Mackerel	18474	24157	17294	15606	43938	85272	78335
16.	Seerfish	3763	2808	3005	3492	10162	8029	5372
17.	Tunnies	10611	6206	7042	5402	12913	22288	32615
18.	Soles	4394	3366	5080	6073	12965	20247	15427
19.	(a) Prawn	52633	35882	29817	25443	67661	53335	45485
	(b) Lobster & Crustaceans	9046	852	1606	1316	13812	16050	21855
20.	Cephalopods	4242	3102	3997	3661	15155	23698	24361
21.	Miscellaneous	20741	55361	37961	29064	49329	31635	41607
Total		279021	332503	335856	283154	468808	647526	662890

APPENDIX 4.13

Species-wise Inland Fish Production in Kerala during 1980-81, 1988-89, 1989-90 and 1990-91

Sl. No.	Species	(Qty. in tonnes)									
		1980-81		1988-89		1989-90		1990-91		Variation	
(1)	(2)	Actual	Percentage	Actual	Percentage	Actual	Percentage	Actual	Percentage	Actual	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(10)	(11)	(12)
1.	Prawn	4724	18.51	6658	23.98	8978	25.15	8732	24.03	354	+4.23
2.	Etroplus	2906	11.38	2980	10.47	3285	9.86	3496	9.62	211	+6.42
3.	Murrels	2912	11.41	2439	8.57	2932	8.80	3145	8.65	213	+7.26
4.	Tilapia	4172	16.34	4982	17.50	5110	15.34	5428	14.94	318	+6.22
5.	Cat fish	2685	10.52	2943	10.33	3224	9.68	3532	9.72	308	+9.55
6.	Jew Fish	1520	5.95	1496	5.25	1730	5.19	2020	5.56	290	+16.76
7.	Others	6607	25.89	6977	24.50	8653	25.98	9989	27.48	1336	+15.44
Total		25526	100.00	28475	100.00	33312	100.00	36342	100.00	3090	+9.10

APPENDIX—4.14

Export of Marine Products from Kerala/India From 1980-81 to 1990-91

Year	Kerala		India	
	Quantity (in Tonnes)	Value (Rs. lakhs)	Quantity (in Tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)
1980-81	29148	9534	75591	29484
1981-82	32006	12513	70105	28601
1982-83	32525	14149	78175	36136
1983-84	32840	14085	92691	37302
1984-85	31570	14813	86187	38429
1985-86	29580	13808	83651	39800
1986-87	33906	16457	85843	46067
1987-88	35576	18394	97179	53120
1988-89	45614	22131	99777	59785
1989-90	47194	24082	110788	63476
1990-91	50997	31379	139419	89337

APPENDIX—4.15

Details of Fishermen Co-operatives in Kerala (1990-91)

Sl. No.	Particulars	Total No. of societies	Total No. of Membership	Paid up Share capital
(1)	(2)	(3)	(4)	(5)
1.	Credit Societies	24	}	N.A.
2.	Utpadaka Societies	22		
3.	Marketing Societies	4		
4.	Federation	1	5	5000
5.	District Societies	5	25	2500
6.	Harijan/Girijan Societies	53	1325	9500
7.	Fishermen Development Welfare Co-operative Societies	81	53321	..
	Total	190	..	..

Details of Physical and Financial Achievements under the Integrated Fisheries Development Project
(Rs. lakhs)

Sl.No.	Particulars	Phase I						Phase II						Total
		Upto 1989-90		During 1991-91		Total		Upto 1989-90		during 1990-91		Total		
		Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	Physical	Financial	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
I. Fishing Inputs														
1.	Crafts (Nos.)	276	71.99	119	22.61	395	94.60	153	65.09	110	56.54	263	121.63	
2.	Out Board Motors (Nos.)	561	98.50	258	46.02	819	144.52	262	70.81	275	64.71	537	135.52	
3.	Webbings (Kg)	50651	86.91	14139	23.22	64790	110.13	56494	112.85	45181	73.16	101615	186.01	
4.	Accessories & Additional Loan	..	26.90	..	29.90	..	56.80	..	47.43	..	52.72	..	100.15	
II. Infrastructure														
III.	Fuel Depot	..	10.84	..	10.00	..	20.84	..	6.20	..	27.00	..	33.20	
IV.	Extension	..	..	..	..	..	..	..	1.00	..	..	..	1.00
V.	Training	..	61.18	..	16.97	..	78.15	..	2.41	..	11.97	..	14.38	
VI.	Working Capital	..	4.42	..	7.92	..	12.34	..	2.54	..	3.54	..	6.08	
VII.	Pre-Operative Expenses	..	1.60	..	6.87	..	8.47	..	..	..	..	..	..
VIII.	Physical & Price contingencies	..	30.00	..	..	..	30.00	..	34.45	..	16.88	..	51.33
IX.	Fishermen Benefitted (Nos.)	3338	..	1239	..	4577	..	3538	..	1992	..	5530	..	
Grand Total		..	406.38	..	149.46	..	555.84	..	342.57	..	306.71	..	649.28	

APPENDIX 4.17

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 3/91 Rs. in lakhs	Remarks (Present stage)
		Original Rs. in lakhs	Revised Rs. in lakhs				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A.1.	Vizhinjam Fishery Harbour Stage-I	173.00	208.00	1962	1980	..	
	Vizhinjam Fishery Harbour II and III stage	704.00	1100.00 (Sanction awaited)	1980	..	763.49	Work in progress
2.	Neendakara Fishery Harbour	370.00	585.00 751.60 (Sanction awaited)	1980	1988 (Scheme commissioned)	720.33	Work almost completed and project Commissioned during 1988.
3.	Thangassery Fishery Harbour	1411.00	..	1991	1994	103.29	T. S. obtained Prequalification tenders under processing.
4.	Munambam Fishery Harbour	710.00	..	1991	1994	77.91	Preliminary work in progress.
5.	Puthiappa Fishery Harbour	527.00	..	1991	1992	232.31	Work in progress.
B. Landing Centres for Mechanised Boats							
1.	New Mahe	28.43	..	1988	..	40.67	Work completed, to be Commissioned.
2.	Thottappally	25.27	..	1984	..	37.35	Scheme commissioned Ice Plant erection to be done.
3.	Palacode	15.00	..	1986	..	3.58	L.A. not completed.
4.	Cheruvathur	18.43	..	1982	..	29.49	Project commissioned on 7-10-1990.
5.	Dharmadam	20.95	..	1986	..	23.76	Project commissioned on 25-5-1989, work of under water blasting in progress.
6.	South Paravoor	24.94	..	1989	..	3.48	Scheme deferred.
7.	Ghettuvai	19.50	..	1989	..	10.46	Work in progress
C. Landing Centres for Traditional Fishermen							
1.	Vizhinjam North	18.70	..	1986	..	5.20	Terminated due to objection from locals.
2.	Vizhinjam South	19.10	..	1988	..	12.49	L.A. not completed.
3.	Vallikkunnu	17.90	..	1985	..	19.39	Project commissioned on 22-5-1989.
4.	Vellayil Beach	22.00	..	1988	..	33.11	Project commissioned on 20-4-1990.
5.	Chalil Gopalapettah	25.00	..	Not commenced	..	19.56	To be arranged after getting land.
6.	Quilon Port	22.00	..	..	..	..	Scheme deferred
D. Brackish Water Fish Farms							
1.	Poyya	23.62	81.00	1984	..	98.63	Work in progress

APPENDIX—4.18

Details of Physical and Financial Achievements of Kerala Fishermen's Welfare Fund Board, Thiruvananthapuram-1.

Sl. No.	Name of Welfare Scheme	1987-88		1988-89		1989-90		1990-91	
		No. of Beneficiaries	Amount	No. of Beneficiaries	Amount	No. of Beneficiaries	Amount	No. of Beneficiaries	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Group Accident Insurance Scheme								
	(a) Death cases	95	14,25,000.00	92	13,80,000.00	96	14,40,000.00	104	16,83,000.00
	(b) Permanent Total Disability	2	30,000.00	2	30,000.00	3	45,000.00	4	60,000.00
	(c) Permanent Partial Disability	7	52,500.00	4	30,000.00	10	75,000.00	19	1,42,500.00
2.	Death while fishing or immediately those after not due to accident	16	2,40,000.00	43	6,45,000.00	37	5,55,000.00	30	4,50,000.00
3.	Special cases sanctioned by Board for death & disability	5	25,000.00	25	1,24,000.00	24	1,13,000.00	7	55,000.00
4.	Financial Assistance for marriage of daughters of fishermen								
	(a) Loan	328	3,93,600.00	1	1,200.00	212	2,54,400.00	396	4,74,840.00
	(b) Ex-gratia	324	66,800.00	1	200.00	213	63,900.00	397	1,19,100.00
5.	Financial Assistance for expenses for death of dependents of fishermen	220	55,000.00	250	62,500.00	281	70,250.00	213	53,650.00
6.	Financial Assistance for expenses for natural death of fishermen	1	250.00	30	7,500.00	67	16,750.00	84	21,000.00
7.	Temporary Disability	100	8,200.00	328	87,760.00	354	93,985.00	604	1,85,210.00
8.	Hut Insurance 50% Subsidy	410	1,790.00	832	3,564.55	323	1,336.60	151	644.80
	50% renewal of policy	..	..	196	877.90	89	437.60	14	58.85
	Compensation paid for loss/damages	29	39,450.00	10	15,165.00	40	62,400.00	27	61,603.00
9.	Insurance of cattamaram/ Country craft (No. Subsidy)	42	No subsidy	10	No Subsidy	86	No Subsidy	32	No Subsidy
	Compensation paid for loss/damages	..	..	..	..	..	..	6	31,484.00
10.	Fishermen pension	15926	38,23,725.00	18108	82,43,897.00	20079	80,61,561.50	23975	2,60,14,300.00
11.	Free ration for fishermen and Workers affected by ban on bottom trawling in 1989	..	..	..	..	17905	2,90,943.25		

Source: Kerala Fishermen Welfare Fund Board.

APPENDIX—4.19

Average Beach Price of Selected Marine Fishes in Kerala

Sl. No.	Species	Average Beach Price (Rs./kg)							
		1980-81	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1.	Elasmobranches	1.25	2.85	3.60	4.40	5.90	7.00	8.00	
2.	Catfish	1.31	2.65	3.35	3.70	5.50	6.75	7.50	
3.	Chirocentrus	1.33	2.85	3.40	4.20	4.95	5.00	6.50	
4.	(a) Oil Sardine	0.93	1.45	1.85	2.25	3.00	4.00	5.00	
	(b) Other Sardines	0.98	1.75	2.10	2.45	3.25	4.15	4.50	
5.	Scianids	1.12	2.60	3.00	3.10	3.25	4.00	5.00	
6.	Carangids	0.76	3.45	4.95	5.00	5.25	6.15	7.50	
7.	Leiognathus	0.70	1.75	2.15	2.60	3.20	3.20	3.50	
8.	Lactarius	2.21	3.50	4.50	5.20	6.20	8.00	10.00	
9.	Promfrets	3.74	6.50	8.00	9.60	11.00	16.80	17.50	
10.	Mackeral	1.69	3.35	4.00	5.20	6.50	7.30	8.00	
11.	Seerfish	4.76	7.10	9.30	12.00	13.50	17.00	18.50	
12.	Tunnies	3.14	5.00	5.60	6.20	7.00	10.50	11.50	
13.	Soles	0.77	1.50	1.95	2.40	3.25	3.30	3.50	
14.	Cephalopods	2.60	5.00	5.80	6.80	6.00	7.80	8.25	
15.	Prawn (all items)	11.70	16.50	20.00	21.40	23.00	28.50	32.50	
16.	Miscellaneous	1.20	2.25	2.45	2.85	3.00	3.20	4.00	

APPENDIX—4.20

Division-wise Area of Forests in Kerala

(Area in Ha. as on 31-3-1991.)

Sl. No.	Division	Reserve Forests	Proposed for Reserve Forests	Vested Forests	Total
(1)	(2)	(3)	(4)	(5)	(6)
A. Territorial Division					
1.	Thiruvananthapuram	38375.90	774.63	397.50	39548.03
2.	Thenmala	46729.73	..	794.40	47524.13
3.	Punalur	28005.07	..	16.90	28021.97
4.	Konni	32064.30	1102.10	8.42	33174.82
5.	Ranni	105028.94	716.70	161.10	105906.74
6.	Munnar	66275.02	4725.60	629.45	71630.07
7.	Kottayam	65548.60	525.70	3140.90	69215.20
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.	Chalakydy	27970.98	..	..	27970.98
12.	Thrissur	33101.81	..	634.30	33736.11
13.	Nenmara	20551.73	..	13088.07	33639.80
14.	Palakkad	7341.00	..	16656.00	23997.00
15.	Mannarkkad	20886.37	111.63	45368.29	66366.29
16.	Nilambur South	26751.10	..	9872.73	36623.82
17.	Nilambur North	5791.96	1.71	33627.50	39421.17
18.	Kozhikode	..	8613.88	20835.95	29449.83
19.	Wayanad South	6760.05	358.95	25244.00	32363.00
20.	Wayanad North	13390.31	1506.44	6712.00	21608.75
21.	Kannoor	20651.27	..	7929.22	28580.49
	Sub Total (A)	700029.13	18489.82	185136.45	903655.40
B. Wild Life Divisions					
1.	Thiruvananthapuram	27682.00	..	450.00	28132.00
2.	Idukki-Eravikulam	28960.20	..	..	28960.20
3.	Thekkady	77700.00	54.38	..	77754.38
4.	Parambikulam	34914.08	..	..	34914.08
5.	Silent Valley	8951.65	..	..	8951.65
6.	Wayanad	36690.74	..	3264.28	39955.02
	Sub Total (B)	214898.67	54.38	3714.28	218667.33
	Grand Total (A+B)	914927.80	18544.20	188850.73	1122322.73

Note:—After reorganisation there are 21 territorial divisions and 6 wild life divisions only.

APPENDIX 4.21

Species-wise Area Under Forest Plantations

(Area in Hectare)

Sl.No.	Name of species	31-3-1986	31-3-1987	31-3-1988	31-3-1989	31-3-1990	31-3-1991	Percentage to total as on 31-3-1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Teak	79596	79416	78583	78799	76502	76202	49.76
2.	Eucalyptus	34808	34728	32986	32095	30609	30675	20.03
3.	Softwood	23133	23101	10695	5907	1239	1239	0.81
4.	Fixed plantations	4532	5955	17832	23480	30660	31490	20.56
5.	Cashew	4658	4658	4157	4138	3784	3784	2.47
6.	Bamboo	1056*	3010*	280	444	404	509	0.33
7.	Wattle	2866	3006	3085	3183	3247	3524	2.30
8.	Hardwood	1162	1162	588	718	849	849	0.55
9.	Fuelwood	1059	1072	1448	385	86	122	0.08
10.	Pepper	543	543	508	508	314	314	0.21
11.	Pine	449	449	449	449	449	452	0.30
12.	Mahagony	173	173	80	89	170	170	0.11
13.	Rosewood	158	158	183	193	149	146	0.10
14.	Balsa	117	117	81	77	97	97	0.06
15.	Cardamom	26	26	..	..	..	..	..
16.	Sandalwood	15	15	14	14	12	12	..
17.	Kongu	17	14	14	..	..	..	..
18.	Zylonicum	..	..	..	..	..	..	..
19.	Others	2848	2769	3354	3622	3441	3563	2.33
Total		157216	160372	155337	154101	153012	153148	100.00

*Including bamboo under plantations.

APPENDIX 4.22

Production of Major Forest Produce

Sl.No.	Item	Unit	Period			Actual increase or decrease over the year
			1987-88	1988-89	1989-90	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Timber (Roundlog)	Cum	51115	19633	38539	+18906
2.	Timber (Round poles)	No.	939709	515236	635615	+120379
3.	Timber (Swan & Squard)	Cum	32	40	38	-2
4.	Firewood	MT.	25437	19174	11111	-8063
5.	Charcoal	Kg.	18515	8750	4860	-3890
6.	Cardamom	Kg.	10152	13098	6375	-6723
7.	Honey	Kg.	15022	27459	50214	+2275
8.	Reeds	No.	110024977	40581161	76510860	+5529699
9.	Bamboo	No.	4224804	373928	1282977	+909049
10.	Junglewood poles	No.	1172	517	76947	+76314
11.	Sandalwood	Kg.	122540	34176	77389	+43222

APPENDIX 4.23

Forest Revenue in Kerala Sales Proceeds

(Rs. lakhs)

SLNo.	Item	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	Increase or decrease (actual) Rs.in lakhs	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. Revenue From Forests									
1.	Timber	3403.24	3762.34	3356.93	2738.33	2308.84	2962.57	+653.73	+28.31
2.	Firewood and Charcoal	92.06	98.23	98.23	72.15	44.64	53.56	+8.92	+19.98
3.	Live Stock	0.95	0.80	--	--	--	--	--	--
4.	Others	362.22	802.53	365.05	384.97	479.02	483.62	+4.60	+0.96
Sub Total (A)		3918.91	4676.92	3820.21	3195.50	2832.50	3499.75	+667.25	+23.55
B.	Other Receipts	361.63	185.26	194.32	183.55	392.87	241.23	-151.64	-38.59
C.	Total (A+B)	4280.54	4862.18	4014.53	3379.00	3225.37	3740.98	+515.61	15.982
D.	Refund	25.67	37.31	9.79	4.57	9.12	9.68	+054.	5.92
E.	Net Revenue (C-D)	4254.87	4824.87	4004.74	3374.43	3216.25	3731.32	-515.07	16.01
£ Including Live Stock									
(£) Provisional									

APPENDIX 4.24

Physical and Financial Achievements under Social Forestry (1989-90) & (1990-91)

SLNo.	Particulars	Unit	Physical Achievement		Financial Achievement	
			1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)
A. Social Forestry						
1.	Block Plantations in Government Lands	Ha.				
(a)	Large Blocks	Ha.	2139.30	4365.73	211.63	343.69
(b)	Small Blocks	"	387.87	383.01	90.38	35.73
2.	Strip Plantations	"	271.10	29.94	21.29	5.43
3.	Tribal Fuel Wood Plantations	"	72.73KM 961.20	24 KM. 207.15	27.68	4.1
4.	Tribal Medicinal	"	0.60	--	9.59	7.30
5.	Farm Forestry-Distribution of Seedlings	Lakh Nos.	84.00	129.50	58.56	81.12
6.	Seedlings Production (Government)	"	163.40	110.50	64.86	59.72
7.	Rural Fuel Wood Scheme (50% Centrally Sponsored)		774.97	..	75.17	
8.	NREP (Rural Development Fund)		(including Augmentation)			
1.	Compact Planting	Ha.	Nil			
2.	Belt Plantation	Kms.				
3.	Seedlings distributed under Farm Forestry	Lakh Nos.	23.51	--	12.47	--
D. RLEGP (100% Centrally Sponsored)						
1.	Plantation in belt submergible area	Ha.	140.00	..	8.08	..
2.	Farm Forestry	Lakhs	0.18			
E. RLEGP-II (100% Centrally Sponsored)						
1.	Construction of Cairns	Nos.				
2.	Stone wall	Nos.				
3.	Belt Plantation	Ha.				
4.	Fire Line Path	Kms.	NIL			
5.	Nursery for Planting	Bds.				
6.	Farm Forestry Nursery					
7.	Camping Facilities	Nos.				

APPENDIX—4.25

Performance of Kerala Social Forestry Project During 1989-90 and 1990-91

Sl.	Item	Unit	1989-90		1990-91		Percentage of Achievement	
			Target	Achievement	Target	Achievement	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Distribution of Seedlings	Lakh Nos	90.00	84.00	140.00	129.50	93.30	92.50
2.	Block Plantation on Government Land							
	(a) Large Block	Ha.	2600.00	2139.30	5170.00	4365.72	82.30	84.40
	(b) Small Block	"	250.00	387.87	120.00	383.01	155.20	319.20
3.	Strip Plantations	"	750.00	271.10 72.73km	18.00	29.94 24km	36.30	166.30
4.	Tribal Fuel wood Plantations	"	500.00	961.23	208.00	207.15	192.20	99.60
5.	Tribal Medicinal Plantations	"	25.00	0.60	..	..	2.40	..
6.	Seedlings Production (Governmental)	Lakh Nos	200.00	163.40	110.30	110.50	81.70	100.00

APPENDIX—4.26

Statement showing selected physical Achievements (Civil Works) under Kerala Social Forestry Project as on 1991 March

Sl. No.	Name of work	Year of commencement Target	Year of completion Achievement	If not completed Percentage of work completed
(1)	(2)	(3)	(4)	(5)
A. Office Buildings:				
1.	Headquarters and Circle Headquarters	3	3	100
2.	Division Offices	14	6	43
3.	Range Offices	47	22	47
4.	Others	327	153	47
B. Quarters:				
1.	Chief Conservator of Forests and Conservation of Forests	5	5	100
2.	DCFS	19	3	16
	Assistant Conservation of Forests	17	12	71
	Range Officers	54	34	63
	Others	36	18	50
C. Roads (Kms)				
	
D. Vehicles (Nos.)				
		327	219	67

APPENDIX 4.27

Details of physical achievements under wild life sanctuaries and National parks during 1990-91

Sl. No.	Programmes	Unit	Wildlife sanctuaries	National parks
(1)	(2)	(3)	(4)	(5)
1.	Boundary surveyed	KM	8.55	2.80
2.	Cairns erected	Nos	161	13
3.	Roads and Paths	KM.	463.31	36.50
4.	Construction of walls	KM	10.28	2.80
5.	Construction of watch Towers	Nos.	Nil.	Nil.
6.	Wireless stations	Nos.	8	2
7.	Fire protection lines	KM	1804.83	154.00
8.	Power Fencing	KM	56.09	Nil.
9.	Check Dams	Nos.	17	Nil
10.	Buildings/Quarters	Nos.	15	Nil
11.	Afforestation	Ha.	264.96	Nil

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.lakhs)	Latest estimated cost (Rs.lakhs)	Total Ex- penditure upto 3/91 (Rs.lakhs)	Net	Expected area to be irrigated (Ha)Gross	Cumulative Achievetill the end of 8/91(Ha) Net	Gross	% increase over the original estimate
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>A. Completed Schemes</i>									
1.	Chalakydy (1949-66)	188	188.25	188.25	26680	39380	18530	27258	..
2.	Peechi (1947-59)	235	235.00	235.00	17555	28080	15262	23718	..
3.	Malampuzha (1949-66)	388	580.00	580.00	29463	42090	19802	40208	49.5
4.	Neyyar (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	..
	Walayar (1953-64)	92	131.66	131.66	4536	6470	3752	6503	49.1
8.	Vazhani (1951-62)	108	108.00	108.00	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	1846	..
Total		1849	2354.92	2354.92	121368	172670	76589	147143	
<i>B. Ongoing Schemes</i>									
11.	Kallada (1961-)	1328	45780	32501.13	61630	92800	30423	46026	3347.1
12.	Pamba (1964-)	383	6341	5859.67	21135	49456	20718	48480	1555.6
13.	Moovattupuzha (1976-)	2086	8925	4331.29	18616	52200	..	..	327
14.	Periyar Valley (1956-)	348	6304	6965.16	32800	85600	30414	76492	1711
15.	Chimoni-Mupli (1975-)	633	3615	2970.94	13000	26200	..	..	561
16.	Chitturpuzha (1961-)	106	2080	2059.51	15700	29202	13901	25856	1862
17.	Kanhirapuzha (1961-)	365	5978	5356.27	9713	21853	16883	15487	1537
18.	Kuttiady (1962-)	496	5500	5224.57	14570	35850	14108	34710	1008
19.	Pazhassi (1964-)	442	7736	7300.89	11525	23050	7821	15642	1650
20.	Vamanapuram (1981-)	1982	3640	340.95	8803	18014	..	..	83
21.	Idamalayar (1981-)	1785	6740	2442.62	14396	43190	..	..	277
22.	Kuriarkutty-Karappara (1978-)	1036	4881	158.33	11736	23472	..	..	371
23.	Chaliyar (Beyporepuzha) (1981-)	37800	37800	106.10	73235	108035	..	..	..
24.	Kakkadavu (1979-)	1335	5100	209.33	13986	41760	..	..	282
25.	Attappady (1975-)	476	5000	732.03	4500	8378	..	..	950
26.	Karapuzha (1975-)	760	4066	2086.81	4650	9300	..	..	435
27.	Meenachil (1980-)	3300	4956	121.55	9960	14510	..	..	50
28.	Banasurasagar (1979-)	800	1798	152.16	2800	4800	..	..	124
Total		57310	166240	789186.87	464121	860340	134268	262693	

APPENDIX 5.2

Major and Medium Irrigation Projects

(Rs. in lakhs, Area in Ha.)

Name of Project	Command Area		Latest estimated cost	Physical achievement during '90-91		Cumulative Achievement till the end of 1990-91		Expenditure during 1990-91	Cumulative expenditure till the end of 1990-91
	Net	Gross		Net	Gross	Net	Gross		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Kallada	61630	92800	45780	2615	3922	15939	23985	2916.17	32501.17
2. Pamba	21135	49456	6341	..	..	20718	48480	284.94	5859.94
3. Periyar Valley	32800	85600	6304	..	..	30414	76492	513.36	6965.36
4. Chimoni-Mupli	13000	26200	3615	..	..	..	..	505.22	2971.22
5. Chitturpuzha	15700	29202	2080	..	..	13901	25856	119.47	2059.47
6. Kanhirapuzha	9713	21853	5978	..	..	6883	15487	382.03	5356.03
7. Kuttiady	14570	35850	5500	..	..	14108	34710	74.27	5224.27
8. Pazhassi	11525	23050	7736	..	..	7821	15642	189.39	7301.39
9. Muvattupuzha	18616	39046	8925	..	..	..	..	476.36	4331.36
10. Vamanapuram	8803	18014	3640	..	..	..	..	41.95	340.95
11. Idamalayar	14394	43190	6740	..	..	..	..	230.82	2495.82
12. Kuriarkutty-Karappara	11736	23472	4881	..	..	..	..	00.33	158.33
13. Chaliyar (Beyyorepuzha)	77235	108035	37800	..	..	..	..	16.08	106.08
14. Kakkadavu	13986	41760	5100	..	..	..	..	10.63	209.63
15. Attappady	4500	8378	5000	..	..	..	..	23.29	732.29
16. Karapuzha	4650	9300	4066	..	..	..	..	198.40	2087.40
17. Meenachil	9960	14510	4956	..	..	..	..	16.91	121.91
18. Banasurasagar	2800	4800	1789	..	..	..	..	5.04	152.04
Total	346753	674516	157834	17199	25963	109784	240652	6004.66	78914.66

APPENDIX 5.3

Physical and Financial Achievement under Minor Irrigation Programme

Item	Cumulative achievement till the end of 1989-90		Actual Expenditure during 1990-91 (Rs. in lakhs)	Achievement during 1990-91 (Ha)		Cumulative area brought under Irrigation through M I Schemes till the end of 1990-91 (Ha)	
	Net (Ha)	Gross (Ha)		Net	Gross	Net	Gross
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. M I Class I	20716	31074	292.158	3034	4551	23750	35624
2. M I Class II	57483	57483	228.161	4098	4098	61581	61581
3. Lift Irrigation	26800	40200	278.366	1185	1185	27495	41978
4. M I Works in I P D Yelah	13304	13304	51.996	553	553	13855	13855
5. Repairs to M I structures	7367	7367	248.354	..	..	..	..
6. Community Irrigation	2578	2578	15.910	905	3624	905	3624
7. M I Special Component Plan	..	..	99.199	594	594	..	..
8. M I Tribal Sub Plan	..	..	58.831	357	357	..	..

APPENDIX 5.4

Details of Minor Irrigation Works Taken up and Completed During the Year 1990-91

Item	No. of works pending	No. of works proposed during 1990-91	No. of works completed during 1990-91
(1)	(2)	(3)	(4)
Minor irrigation class I	47	67	16
Minor irrigation class II	74	102	115
Lift Irrigation	72	57	9
Minor Irrigation works in IPD Yelah units	21	74	22
Repairs to M. I. structure	5	75	20
Community Irrigation M. I. works	130	..	24
M. I. works under SCP	44	20	17
M. I. works under TSP	16	14	10

APPENDIX 5.5

Physical and Financial achievement of Flood Control and Anti Sea erosion Programmes

Item	Achievement till the end of 3/90		Achievement during 1990-91		Cumulative achievement till the end of 3/91	
	Expenditure (Rs. in lakhs)	Area benefited	Expenditure (Rs. in lakhs)	Area benefited	Expenditure (Rs. in lakhs)	Area benefited
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Flood Control Programmes	1971	32067 (Ha)	172.97	2075 (ha)	2143.97	341.42 (Ha)
Anti Sea erosion works	9155	307.47 K. M. New Sea wall 42.32 K. M. reformation of Old seawall	888.29	5 K.M. New sea wall 2.65 Km. reformation of old sea wall	10043.00	312.47 K. M. New Sea wall 44.97 Km reformation of old sea wall

APPENDIX 5.6

Details of Flood Control and Anti-Sea Erosion works completed during 1990-91

Item	No. of works pending	No. of works proposed during 1990-91	No. of works completed during 1990-91
(1)	(2)	(3)	(4)
Flood Control works	78	40	36
Anti-Sea Erosion Programme	19	51	15

APPENDIX 5.7

Physical and financial achievement of Command Area Development Programme

Item	Achievement till the end of 3/90		Achievements during 1990-91		Cumulative achievements till the end of 3/91	
	Expenditure	Area benefited	Expenditure	Area benefited	Expenditure	Area benefited
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Activities of Command Area Development programme	1475.79	42583	802.56	14450	2278.35	57033

APPENDIX 5.8

Growth of Kerala Power System at a Glance 1990 and 1991

Particulars	Position as on 31-3-1990	Position as on 31-3-1991
(1)	(2)	(3)
1. Installed capacity-MW	1476.5	1476.5
2. Maximum demand-MW		
(a) System	1171.2	1147.8
(b) Internal	1270.2	1271.6
3. Generation per annum-MU	5075.0	5490.8
4. Import per annum-MU	1159.7	1337.94
5. Export per annum-MU	103.6	4.7
6. Energy sales per annum-MU	4794.0	5331.85
7. Energy losses as percentage of energy available for sale	21.96	21.57
8. Per capita consumption KWH	168.2	185.06
9. 220 KV lines—CT. KM	1064	1064
10. 110 KV lines CT. KM.	2191	2191
11. 66 KV lines-CT.KM.	2527.4	2573
12. 11 KV lines-CT. KM.	19715	20821
13. LT lines-CT. KM.	95938	101884
14. Step up transformer capacity-MVA	1726	17.26
15. No. of the EHT substation	129	141
16. Step down transformer capacity A VM	4674	4831
17. Distribution Transformer		
(a) Numbers	16394	17838
(b) Capacity-KVA	1829680	
18. No. of villages electrified	1268	1268
19. No. of consumers (in lakhs)	31.9	34.5
20. Connected load-MW	3942	4367.45
21. No. of street lightes	498493	522260
22. No. of irrigation pumps	199504	218446
23. Total revenue per annum (Rs. in lakhs)	26997.75	29093.58

APPENDIX 5.9

Power Projects and Power Generation as on 31-3-1991

Name of Project	Installed Capacity (MW)	Energy Potential (Mkwh)	Units Generated during 1990-91 (Kwh)
(1)	(2)	(3)	(4)
1. Pallivasal	3x5,3x7.5	284	226.07
2. Sengulam	4x12	182	135.96
3. Neriamangalam	3x15	237	261.52
4. Panmiar	2x15	158	81.05
5. Poringalkuthu	4x8	170	191.28
6. Sabarigiri	6x50	1388	1279.50
7. Sholayar	3x18	233	173.44
8. Kuttiady	3x25	268	256.07
9. Idukki	6x130	2398	2575.58
10. Idamalayar	2x37.5	380	310.32
Total	1476.5	5648	5480.75

APPENDIX 5.10

Details of cost expenditure energy potential tentative year of commissioning of Hydro Electric Project in Kerala 1991

Name of Project	Year of starting	Original Estimated cost (Rs. in lakhs)	Latest revised estimated cost (Rs. in lakhs)	Year of latest estimated year	Expenditure on the project till the end of 3/91 (Rs. in lakhs)	Expected year of commissioning	% increase over the original estimated cost	Energy potential (MU)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Kakkad	1976	1860	7012	1988	5042	1993-94	276	262
2. Kallada	1981	1180	1389	1988	913	1992-93	17	53
3. Lower Periyar	1983	8843	14000	1988	8652	1994-95	58	493
4. Malampuzha	1987	295	345	1988	110	1992-93	16	5.6
5. Madupetty	1987	292	332	1988	70	1992-93	13	6.4
6. Peppara	1987	393	567	1988	12	1992-93	44	11.5
7. Chimoni	1987	314	360	1988	28	1992-93	14	6.5
8. Malamkara	1987	780	997	1988	89	1993-94	27	36
9. Peechi	1989	..	244	1989	..	1993-94	..	5
10. Pooyankutty	1985	25000	25000	1985	458	Spill over to IX Plan	..	645
11. Azhutha Diversion	1988	..	370	1988	134	1993	..	57
12. Kuttiar Diversion	1988	..	214	1988	..	1993-94	..	36.6
13. Vadakkepuzha Diversion	1989	..	131	1989	..	1993-94	..	12
14. Vazhikkadavu Diversion	1989	..	185	1989	..	1993-94	..	24
15. Peringalkuthu L. B. Extension	1989	..	902	1989	..	1993-94	..	38

APPENDIX 5.11

Pattern of power Consumption and Reserve Collected during 1990-91 (Provisional)

Sl. No.	Category	No. of consumers on 31-3-1991 (Nos.)	Connected load as on 31-3-1991	Energy (MU) sold	Consumption as percentage to total	Revenue collected (Rs. lakh)	Revenue as % to total
(1)	(2)	(3)	(4)	(4)	(6)	(7)	(8)
1.	Domestic lights, heat and small power	2577834	1748.40	1620.93	30.40	6985.15	24.91
2.	Commercial lights, fans, heat, and power	536488	379.61	449.39	9.30	3777.58	13.47
3.	Industrial (Low and Medium voltage)	63898	889.40	351.93	6.60	2337.24	8.4
4.	Industrial (High and Extra high voltage)	1040	1077.21	2344.85	43.98	12599.00	47.92
5.	Irrigation	218446	429.33	206.44	3.87	513.31	1.83
6.	Public lighting	1398	30.08	110.13	2.06	805.12	2.87
7.	Water works and sewerage	786	67.53	81.13	1.52	482.23	1.72
8.	Bulk supply to licencies	5	21.08	117.06	2.20	516.87	1.84
9.	Miscellaneous	..	..	..	..	10.39	0.04
Total:		3449888	4642.67	5381.86	100	28046.90	100

APPENDIX 6.1

Capital Invested and Employment in respect of Government Owned Companies

Name of Company	Capital Invested (Rs. in lakhs)		Employment (in Nos.)	
	As on 31-3-1990	As on 31-3-1991	As on 31-3-1990	As on 31-3-1991
(1)	(2)	(3)	(4)	(5)
1. Kerala Ceramics Limited	1465.56	1568.11	562	531
2. Kerala Soaps and Oils Limited	1793.58	1897.31	620	604
3. Travancore Plywood Industries Limited	342.78	361.93	591	575
4. Kerala State Drugs and Pharmaceuticals Limited	1837.08	2000.19	579	579
5. Kerala State Detergents and Chemicals Limited	743.54	848.03	276	283
6. Kerala State Salicylates and Chemicals Limited	1430.78	1761.00	155	152
7. Kerala Electrical and Allied Engineering Co-Limited.	2313.10	2560.25	989	1022
8. Steel Industrials Kerala Ltd.	2009.38	2442.19	358	402
9. Autokast Limited	2588.00	3075.00	494	537
10. Steel and Industrial Forgings Ltd.	1241.00	1406.00	185	226
11. Kerala Minerals and Metals Ltd.	14321.99	19020.30	1137	1145
12. Malabar Cements Limited	6427.45	6454.98	1041	1078
13. Sitaram Textiles Limited	1406.07	1355.38	634	599
14. Trivandrum Spinning Mills Ltd.	495.20	546.41	501	495
15. Kerala Agro Machinery Corporation Ltd.	168.19	161.46	399	403
16. Scooters Kerala Limited	229.99	229.99	99	100
17. Kerala Automobiles Ltd.	1220.00	1326.00	383	374
18. Kerala Premopipe Factory Ltd.	174.66	177.62	265	255
9. Kerala Clays and Ceramic Products Ltd.	21.61	31.61	408	392
20. Kerala State Wood Industries Limited	851.43	816.65	165	170
21. Meat Products of India Ltd.	173.89	183.71	96	94
Total:	41195.28	48224.12	9937	10016

APPENDIX 6.2

Performances of Government Owned Companies in respect of Value of Production and Sales Turnover: 1989-90 and 1990-91:

(Rs. in lakhs).

Name of Company	Value of Production		Sales Turnover	
	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)
<i>KSIE Group</i>				
1. Kerala Soaps and Oils Limited	652.00	734.00	615.87	688.24
2. Kerala State Drugs and Pharmaceuticals Limited	1100.37	940.87	1093.73	1106.10
3. Kerala State Detergents and Chemicals Limited	29.17	35.81	26.37	34.64
4. Travancore Plywood Industries Limited	268.24	328.53	297.66	353.07
5. Kerala State Salicylates and Chemicals Limited	43.07	..	..	..
<i>Electrical</i>				
6. Kerala Electrical and Allied Engineering Co., Limited	3078.80	NA	3007.03	2643.86
<i>Steel</i>				
7. Steel Industrials Kerala Limited	763.54	344.48	1395.43	1443.23
8. Autokast Limited	668.76	493.92	657.67	464.19
9. Steel and Industrial Forgings Limited	605.80	752.24	610.70	776.52
<i>Chemical</i>				
10. Kerala Minerals and Metals Limited	3922.81	6889.34	4228.50	4233.33
11. Malabar Cements Ltd.	3900.24	4375.00	2926.99	3386.54
<i>Textiles</i>				
12. Sitaram Textiles Limited	738.00	NA	529.61	756.76
13. Trivandrum Spinning Mills Ltd.	426.74	419.21	218.34	215.97
<i>Engineering</i>				
14. Kerala Agro Machinery Corporation Limited	1128.99	1445.95	1337.26	1542.93
15. Scooters Kerala Limited	77.00	75.18	80.26	67.92
16. Kerala Automobiles Limited	533.00	837.00	486.00	811.00
<i>Ceramics and Refractories</i>				
17. Kerala Ceramics Limited	285.67	365.87	280.91	347.09
18. Kerala Clays and Ceramic Products Limited	81.58	87.70	93.24	107.29
19. Kerala Promopipe Factory Ltd.	142.63	142.71	159.67	141.21
<i>Wood based</i>				
20. Kerala State Wood Industries Ltd.	279.56	401.90	248.54	389.35
<i>Agro based</i>				
21. Meat Products of India Limited	107.63	108.27	106.91	110.33
Total:	15016.80	18777.98	18400.69	19619.57

APPENDIX 6.3

Installed Capacity and Capacity Utilisation in Government Owned Companies during 1989-90 and 1990-91

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation (in percentage)	
			1989-90	1990-91	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Kerala Soaps and Oils Limited	(i) Soaps	M.T.	9000	9000	3510	3980	39.00	44.22
	(ii) Glycerine	"	260	260	28	39	10.77	15.00
	(iii) Shark Liver Oil Productis	"	300	300	25	37	8.33	12.33
	(iv) Vanaspathi	"	3000	3000	..	..	..	..
2. Kerala State Drugs and Pharmaceuticals Ltd.	(i) Vitamin 'A'	M.M.U.	90.00	90.00	12.71	8.46	42.37	28.20
	(ii) Tablets	Lakh Nos.	2514	2514	2782	2317	110.66	92.16
	(iii) Granules	£ Kg.	20,000	20,000	..	..	..	..
	(iv) Powders	"	..	..	19643	613256 (Packets)	..	..
	(v) Liquids	Lakh Litres	2.25	2.25	4.43	1.47	196.89	65.33
	(vi) Injectibles							
	(a) Bottles	Lakh Nos.	4.50	4.50	8.49	6.52	188.67	144.89
	(b) Vials	"	15.00	15.00	7.60	7.72	50.67	51.47
	(c) Ampouls	"	60.00	60.00	20.68	17.74	34.47	29.57
	(vii) Capsuls	"	149.00	149.00	104.50	71.81	70.13	48.19
3. Kerala State Detergents and Chemicals Limited	Synthetic Detergents							
	(i) Cake/Bar	M.T.	7200	7200	2002	85	27.81	1.18
	(ii) Spray Dried Powder	"	10800	10800	5144	..	47.63	..
	(iii) High Density Powder	"	4000	1800	194	173	4.85	9.61
4. Travancore Plywood Industries Limited	Plywood	Lakh Sq. Metres (4mm basis)	27.38	27.38	6.93	7.31	25.31	26.70
5. Kerala State Salicylates and Chemicals Limited	(i) Salicylic Acid	M.T.	1000	1000	21	..	2.10	..
	(ii) Aspirin	"	1000	1000	38	..	3.80	..
6. Kerala Electrical and Allied Engineering Co., Limited	(i) Distribution Transformers	K.V.A.	120000	120000	555233	292065	462.69	243.39
	(ii) G.I. Specials	M.T.	1500	1500	353	704	23.53	46.93
	(iii) Steel Structures	"	1200	1200	479	620	39.92	51.67
	(iv) Galvanised Structures	"	..	..	..	..	..	..
	(v) Brushless Alternators	Nos.	1500	1500	1503	1372	100.20	91.47
	(vi) HRC Fuses	"	..	..	..	..	..	..
	(vii) Electrical Wiring Accessories	"	193000	193000	435244	567122	327.25	426.41

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. Steel Industrials Kerala Limited	(i) Fabricated Steel Structurals	M.T.	3000	3000	1510	1259	50.33	41.97
	(ii) Ferrous Scrap	"	10000	16000	6296	6321	62.96	39.51
	(iii) Castings	"	..	720	..	670	..	93.06
8. Autokast Limited	Heavy Ferrous and Non-Ferrous Scrap	"	18000	18000	6977	2760	38.76	15.33
9. Steel and Industrial Forgings Limited	Automobile and Industrial Forgings	"	4250	4790	2328	2827	54.78	59.02
10. Kerala Minerals and Metals Limited	(i) Titanium Dioxide	M.T.	22000	22000	5150	9000	23.41	40.91
	(ii) Ilmenite	}	29740	29740	8026	7417	26.99	24.94
	(iii) Rutile							
	(iv) Zircon							
	(v) Leucoxene							
	(vi) Monazite							
11. Malabar Cements Ltd.	Portland Cement	Lakh M.T.	4.20	4.20	2.66	2.55	63.33	60.71
12. Sitaram Textiles Ltd.	(i) Cotton Yarn	Lakh Kg.	12064 Spindles	15776 Spindles	8.06	9.42	..	..
	(ii) Cotton Fabrics	Lakh Mtrs.	336 looms	..	..	..	..	..
	(iii) Processing	"	120	75	36.83	45.12	30.69	60.16
13. Trivandrum Spinning Mills Limited	Cotton Yarn	Lakh Kg.	25200 Spindles	25200 Spindles	5.96	6.49	..	..
14. Kerala Agro Machinery Corporation Limited	(i) Power Tillers/ Agricultural Tractors Nos.		3000	3000	2710	3020	90.33	100.67
	(ii) High Speed Diesel Engines	Nos.	..	..	..	..	..	..
15. Scooters Kerala Ltd.	(i) Scooters	Nos.	..	..	..	..	..	..
	(ii) Sheet Metal Items	M.T.	..	180.07	..	..	..	..
16. Kerala Automobiles Ltd.	Three Wheelers	Nos.	6000	4200	2075	3011	34.58	71.69
17. Kerala Ceramics Ltd.	(i) Kaolin	M.T.	18000	18000	9102	7684	50.57	42.69
	(ii) Porcelain	"	595	595	412	461	69.24	77.48
	(iii) China Clay	"	5000	..	2012	..	40.24	..
	(iv) Sanitary Wares	"	1200	1200	669	224	55.75	18.67
18. Kerala Clays and Ceramic Products Ltd.	China Clay	M.T.	..	..	10920	10238	..	..
19. Kerala Premopipe Factory Limited	Concrete Cement Pipes	Nos.	..	..	11426	11319	..	..
20. Kerala State Wood Industries Limited	(i) Veneers	Lakh Sq. Mtrs.	30.00	37.50	0.76	0.79	2.50	2.11
	(ii) Joinery Items	Lakh Nos.	0.80	1.00	0.16	0.20	20.00	20.00
	(iii) Scantlings	Cu. Mtrs.	..	..	..	2521	..	..
21. Meat Products of India Limited	(i) Meat and Meat Products	Tonnes	300	300	176	215	58.67	71.67
	(ii) Feed	"	7200	7200	1500	1222	20.00	16.97

APPENDIX 6.4

Capital Invested and Employment in respect of Government Majority Companies in Kerala

Name of Company (1)	Capital Invested (in Rs. lakhs)		Employment (Nos.)	
	As on 31-3-1990 (2)	As on 31-3-1991 (3)	As on 31-3-1990 (4)	As on 31-3-1991 (5)
1. Keltron Counters Limited	629.95	717.04	306	310
2. Keltron Electro Ceramics Limited	..	NA	103	103
3. Keltron Crystals Limited	..	NA	126	126
4. Keltron Magnetic Limited	66.71	77.55	34	33
5. Keltron Power Devices Limited	811.46	906.69	156	154
6. Keltron Resistors Limited	252.99	269.49	50	49
7. Keltron Rectifiers Limited	687.37	783.14	107	107
8. Keltron Component Complex Ltd.	744.27	1306.60	369	370
9. Sidkel Televisions Limited	..	NA	78	78
10. Steel Complex Limited	930.60	1086.06	638	638
11. Metal Industries Limited	35.61	25.89	128	128
12. Travancore Titanium Products Ltd.	176.75	176.75	1414	1480
13. Travancore Cochin Chemicals Ltd.	738.19	934.49	1179	1166
14. Travancore Cements Limited	65.00	50.00	580	580
15. Metropolitan Engineering Co. Ltd.	83.65	105.87	147	153
16. Traco Cable Company Limited	2980.35	4179.21	252	273
17. United Electrical Industries Limited	401.85	403.97	522	531
18. Transformers and Electricals Kerala Limited	3887.42	4320.83	1614	1634
19. Kerala Construction Components Limited	49.48	49.48	119	116
20. Chalakudy Refractories Limited	452.51	530.79	127	127
21. Travancore Sugars and Chemicals Limited	51.00	51.00	543	559
22. Forest Industries (Travancore) Limited	44.15	48.18	130	131
Total :	13089.91	16023.03	8722	8796

APPENDIX 6.5

Performance of Government Majority Companies in terms of Value of Production and Sales Turnover: 1989-90 and 1990-91

(Amount in Rs. lakhs)

Name of Company (1)	Value of Production		Sales Turnover	
	1989-90 (2)	1990-91 (3)	1989-90 (4)	1990-91 (5)
<i>Electronics</i>				
1. Keltron Counters Limited	233.00	207.27	251.97	257.87
2. Keltron Electro Ceramics Limited	..	NA	..	NA
3. Keltron Crystals Limited	..	NA	..	NA
4. Keltron Magnetics Limited	84.15	62.25	85.98	76.80
5. Keltron Resistors Limited	54.25	70.25	82.35	96.61
6. Keltron Power Devices Limited	136.00	52.41	139.91	87.44
7. Keltron Rectifiers Limited	102.29	84.70	103.63	118.54
8. Keltron Component Complex Limited	1190.59	1497.89	1256.68	1525.11
9. SINDHEL Televisions Limited	..	NA	..	NA
<i>Iron and Steel</i>				
10. Steel Complex Limited	3251.31	4420.73	3424.10	4168.75
11. Metal Industries Limited	98.55	80.57	90.05	110.60
<i>Chemical</i>				
12. Travancore Titanium Products Ltd.	2479.52	3441.10	3462.79	4221.12
13. Travancore Cochin Chemicals Ltd.	3508.21	4290.06	3264.26	4253.16
14. Travancore Cements Limited	1255.71	1536.23	1249.24	1568.47
<i>Electricals and Cables</i>				
15. Metropolitan Engineering Co. Ltd.	171.00	186.00	152.63	189.25
16. Traco Cable Company Limited	781.60	1154.13	758.00	1163.05
17. United Electrical Industries Ltd.	588.90	690.00	604.25	696.24
<i>Ceramics and Refractories</i>				
19. Kerala Construction Components Limited	52.67	45.89	45.41	53.13
20. Chalakudy Refractories Limited	2.75	20.04	2.35	15.66
<i>Agrobased Industries</i>				
21. Travancore Sugars and Chemicals Ltd.	516.60	434.22	535.55	511.17
<i>Wood based Industries</i>				
Forest Industries (Travancore) Limited	93.98	70.79	154.39	238.30
Total :	18571.62	23569.56	19498.43	23703.98

APPENDIX 6.6

Installed Capacity and Capacity Utilisation in Government Majority Companies: 1989-90 and 1990-91

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation (in percentage)	
			1989-90	1990-91	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Keltron Counters Limited	Counting Devices, Registering Mechanism and Defence Equipment	Lakh Nos.	Not fixed	10.00	2.18	0.89	..	8.90
2. Keltron Electro Ceramics Ltd.	(i) Ceramic Capacitors	Million Pieces	80.00	NA	32.90	NA	41.13	..
	(ii) Thermistors	"	..	NA	..	NA	..	..
3. Keltron Crystals Limited	(i) Communication Crystals and Watch Crystals	Lakh Nos.	20.54	NA	11.82	NA	57.55	..
	(ii) Digital Electronic Watches	"	0.45	NA	0.08	NA	17.78	..
4. Keltron Magnetics Limited	(i) Colour TV Delay Lines	"	27.50	27.50	0.09	0.02	0.33	0.07
	(ii) Servo Controlled Voltage Stabilizers	Nos.	5000	5000	1348	1300	26.96	26.00
5. Keltron Power Devices Limited	Power Transistors	Lakh Nos.	10.00	10.00	7.24	2.79	72.40	27.90
6. Keltron Resistors Limited	Carbon and Metal Film Resistors	Million Nos.	142.00	142.00	75.70	87.10	53.91	61.34
7. Keltron Rectifiers Ltd.	(i) Silicon Diodes	Lakh Nos.	3.20	3.20	2.10	1.67	65.63	52.19
	(ii) Electronic Equipment	Nos.	50.00	50.00	8.00	6.00	16.00	12.00
8. Keltron Component Complex Limited	Aluminium Electrolytic Capacitors	Million Nos.	72.00	150.00	55.01	70.59	76.40	47.06
9. SIDKEL Televisions Ltd.	Television Sets	Nos.	20,000	NA	2387	NA	11.94	..
10. Steel Complex Ltd.	Steel Billets	Tonnes	55,000	55,000	40837	50457	74.25	91.74
11. Metal Industries Ltd.	Agricultural Implements	MT	250	250	450	347	180.00	138.80
12. Travancore Titanium Products Limited	Titanium Dioxide	"	24,500	24,500	9050	11503	36.94	46.95
13. Travancore Cochin Chemicals Limited	(i) Caustic Soda	"	52,800	52,800	36719	49469	69.54	82.93
	(ii) Chlorine Products	"	46464	46464	32313	38253	69.54	82.93
14. Travancore Cements Limited	(i) White Cement	"	30000	30000	30108	30901	100.36	103.00
	(ii) Cement Paint	"	600	1050	1251	1329	208.50	126.57
15. Metropolitan Engineering Co. Limited	Switches & Fuses	Nos.	10,000	44620	8550	21420	85.50	48.01
16. Traco Cable Company Limited	(i) A.A.C. and A.C.S.R.	MT	1500	1500	1307	1409	87.13	93.93
	(ii) PVC Covered Conductors & Bare Copper Conductors	MCM	39.92	32.92	24.24	10.73	60.72	32.59
	(iii) Telephone Cable	CKM	5,00,000	5,00,000	..	26,000	..	5.20

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. United Electrical Industries Limited	(i) KWH Meters	Nos.	2,50,000	3,00,000	2,65,717	2,84,782	106.69	94.93
	(ii) -Motor Control Gears	„	4,500	4,500	1996	1991	37.69	44.24
	(iii) L.T. Switch Gears	„	..	..	..	..	..	..
	(iv) 11 KV Switch Gears	„	..	..	..	..	..	..
	(v) Plastic Film Capacitors	Million Nos.	15.00	15.00	0.95	0.27	6.33	1.80
	(vi) Carbon Film Resistors	„	..	..	..	..	..	..
	(vii) Other Products	Nos.	..	..	..	..	..	..
18. Transformers and Electricals Kerala Limited	(i) Power Transformers	MVA	4500	4500	3127	3701	69.49	82.24
	(ii) Current and Potential Transformers	Nos.	1000	1000	646	569	64.60	56.90
	(iii) Gas Circuit Breakers	„	100	100	26	28	26.00	28.00
19. Kerala Construction Components Limited	Sandlime Bricks	Lakh Nos.	120	120	82.63	71.24	68.86	59.37
20. Chalakudy Refractories Ltd.	(i) Refractory Items	MT	2400	2400	180	902	7.50	37.58
	(ii) Calcined Kaolin	„	..	..	..	2	..	..
21. Travancore Sugars and Chemicals Ltd.	(i) Sugar	Tonnes	900 tonnes of cane/day	900 tonnes of cane/day	1209	968	..	..
	(ii) Spirit	Lakh Proof Litres	46.53	46.53	14.58	13.56	31.33	29.14
	(iii) IMFL	„	..	..	1.52	1.69	..	..
	(iv) Arrack	„	..	..	52.77	35.65	..	..
	(v) Molasses	Tonnes	..	..	683	621	..	..
22. Forest Industries (Travancore) Ltd.	Wood Furniture and Joinery Items	Cu.M	1500	1500	1486	1275	99.07	85.00

APPENDIX 6.7

Group wise Working Results of State Public Sector Industrial Undertakings in Kerala

(Amount Rs. in lakhs)

Group	(1)	Paid up Capital		Total Borrowings		Gross Block		Net profit Earned during 1990-91		Net loss Incurred during 1990-91		Accumulated loss as on 31-3-1991.		
		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		(12)	(13)	(14)
		Number of Companies which are available	As on 31-3-1990	As on 31-3-1991	As on 31-3-1990	As on 31-3-1991	As on 31-3-1990	As on 31-3-1991	No. of Companies	Amount	No. of Companies	Amount	No. of Companies	Amount
1. Modern Manufacturing Industries:														
(i) Electronics	7	6846.73	7646.96	6461.29	8525.38	4610.14	5538.65	2	119.61	5	1120.42	5	4928.25	
(ii) KSIIE Group	5	1354.80	1428.80	5607.96	6528.92	2949.76	3720.82	..	..	5	873.27*	3	5200.63*
(iii) Chemicals	5	6449.03	6474.04	15759.96	20489.92	22298.23	22771.05	4	1490.62	1	1009.90	2	10384.67	
(iv) Textiles	3	1460.86	1545.86	2395.31	2396.99	1922.95	2081.29	1	68.91	2	146.69	2	2737.58	
(v) Electricals and Cables	5	2966.79	3673.24	9215.16	10238.48	6436.01	7123.27	2	137.58	3	768.68	4	5339.44	
(vi) Engineering	8	3605.16	4360.19	5969.36	7139.94	5707.67	5975.40	3	217.69	5	1125.43	7	4742.70	
(vii) Ceramics and Refractories	5	1297.99	1357.99	910.67	1051.44	595.02	653.08	1	1.90	4	114.17	4	1888.41	
2. Agro based	2	175.10	175.10	102.57	133.94	224.35	244.38	..	..	2	48.63	1	202.24
3. Wood based	2	187.71	197.71	897.78	857.50	349.49	332.87	2	32.77	..	..	2	629.92
4. Trading and Developmental Units.	10	9925.16	10488.62	12498.03	11319.89	1020.63	1067.30	3	39.54	7	340.34	7	5489.06	
Total:	52	34269.35	37348.51	59818.09	68682.30	46114.25	49538.11	18	2108.62	34	5547.53*	39	41542.90*	

*Excluding the loss of Kerala State Salicylates and Chemicals Limited.

APPENDIX 6.8

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

(Amount in Rs. Crores)

State/Union Territory	As on 31st March, 1989		As on 31st March, 1990	
	Value of Property	Percentage to Total	Value of Property	Percentage to Total
(1)	(2)	(3)	(4)	(5)
1. Andhra Pradesh	9906	10.23	11412	10.06
2. Assam	4733	4.89	5050	4.45
3. Bihar	8440	8.71	9638	8.50
4. Goa	52	0.05	58	0.05
5. Gujarat	5071	5.23	5660	4.99
6. Haryana	814	0.84	899	0.79
7. Himachal Pradesh	952	0.98	1298	1.14
8. Jammu and Kashmir	867	0.90	1351	1.19
9. Karnataka	2181	2.25	2589	2.28
10. Kerala	1524	1.57	1701	1.50
11. Madhya Pradesh	11502	11.87	12580	11.09
12. Maharashtra	16180	16.70	19933	17.59
13. Orissa	5719	5.90	5966	5.26
14. Punjab	802	0.83	837	0.74
15. Rajasthan	1399	1.44	1717	1.51
16. Tamil Nadu	4898	5.06	5902	5.21
17. Uttar Pradesh	8295	8.56	8794	7.76
18. West Bengal	5730	5.92	7084	6.25
19. Delhi	2966	3.06	4561	4.02
20. Other States/Union Territories	641	0.66	784	0.69
21. Unallocated	4209	4.35	5576	4.93
Total	96881	100.00	113390	100.00

Source: A Statistical Review of Central Government Enterprises, 1939-9); Centre for Monitoring Indian Economy, April, 1991.

APPENDIX 6.9

Capital Invested and Employment in respect of Government of India Companies Working in Kerala

Name of Company (1)	Capital Invested (Rs. in lakhs)		Employment (in No.s)	
	As on 31-3-1990 (2)	As on 31-3-1991 (3)	As on 31-3-1990 (4)	As on 31-3-1991 (5)
1. Cochin Refineries Limited, Kochi	18888.00	18506.00	1149	1194
2. Cochin Shipyard Limited, Kochi	14830.00	15400.00	2706	2706
3. Fertilisers and Chemicals of Travancore Limited, Aluva	43395.00	N.A.	8610	NA
4. Hindustan Latex Limited, Thiruvananthapuram	2394.14	9453.00	1681	1984
5. Hindustan Newsprint Limited, Kottayam	10026.12	8355.99	1687	1684
6. Indian Rare Earths Limited:				
(a) Rare Earth Division, Aluva	737.66	NA	615	605
(b) Minerals Division, Chavara	NA	NA	NA	NA
7. Indian Telephone Industries Limited, Palakkad	NA	NA	830	NA
8. Hindustan Insecticides Limited, Aluva	NA	NA	867	853
9. Instrumentation Limited, Palakkad	NA	NA	492	NA
10. Modern Food Industries, (India) Limited, Kochi	NA	NA	216	234
11. HMT Limited, Kalamassery	1065.88	1048.53	2940	2895
12. Balmer Lawrie & Co. Ltd., Aroor	NA	NA	289	312
13. Hindustan Organic Chemicals Limited, Kochi	5638.60	5638.60	400	421
14. Cannanore Spinning and Weaving Mills, Kannur	358.61	NA	609	NA
15. Parvathi Mills, Kollam	807.54	NA	1326	NA
16. Vijayamohini Mills, Thiruvananthapuram	356.96	NA	584	NA
17. Alagappa Textiles (Cochin) Mills, Thrissur	548.52	635.79	NA	NA
18. Kerala Lakshmi Mills, Thrissur	405.46	534.85	769	747

APPENDIX 6.10

Performance of Government of India Companies in Kerala in terms of Value of Production and Sales Turnover: 1989-90 and 1990-91

(Amount in Rs. lakhs)

Name of Company	Value of Production		Sales Turnover		Export	
	1989-90	1990-91	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Cochin Refineries Limited	134009.00	149065.00	134258.00	148879.00	..	..
2. Cochin Shipyard Limited	7451.00	7260.00	2840.00	7867.00	..	..
3. Fertilizers and Chemicals Travancore Limited	19024.87	NA.	NA	MA	NA	NA
4. Hindustan Latex Limited	2441.00	2781.00	2482.00	2781.00	152.00	287.00
5. Hindustan Newsprint Limited	11285.51	12948.00	11262.36	12972.07	..	..
6. Indian Rare Earths Limited:						
(a) Rare Earths Division	737.66	963.60	696.95	1017.34	205.00	369.87
(b) Minerals Division	NA	NA	NA	NA	NA	NA
7. Indian Telephone Industries Limited	9107.35	NA	10209.22	NA	NA	NA
8. Hindustan Insecticides Limited	2367.96	2600.00	1433.77	2036.70	109.67	114.71
9. Instrumentation Limited	2127.37	2647.05	2376.26	2962.36	84.35	NA
10. Modern Food Industries (India) Limited	600.40	814.00	640.00	814.00	..	..
11. HMT Limited	4660.46	6207.76	5526.35	6258.12	374.00	336.00
12. Balmer Lawrie & Company Limited	1058.29	1465.72	1101.47	1383.21	686.79	1063.81
13. Hindustan Organic Chemicals Limited	6152.49	14889.17	8254.00	11525.00	32.85	474.00
14. Cannanore Spinning and Weaving Mills	666.85	NA	NA	NA	NA	NA
15. Parvathi Mills	895.08	NA	934.21	NA	75.97	NA
16. Vijayamohini Mills	830.97	NA	822.71	NA	NA	NA
17. Alagappa Textiles (Cochin) Mills	1338.51	1299.29	1320.25	1308.48	..	..
18. Kerala Lakshmi Mills	1080.26	1026.94	1083.59	1014.65	..	..

Government of India Companies Functioning in Kerala—Main Features

Name of Company	Paid up Capital as on		(4)	(5)	(6)	(7)	Gross Block		(10)	(11)	Net Profit (+)/ Net loss (-)	
	(2)	(3)					As on 31-3-91	As on 31-3-1991			1989-90	1990-91
1. Cochin Refineries Ltd, Kochi	6891.00	6894.00	5788.00	12376.00	..	1090.00	31517.00	39469.00	28748.00	132110.00	(+18226.00	(+9684.00
2. Cochin Shipyard Ltd, Kochi	7436.00	7436.00	7436.00	11283.00	..	..	11527.00	12152.00	8406.00	2619.17	(-2771.00	(-2097.00
3. Fertilisers and Chemicals Tavanore Ltd, Aluva	34277.20	NA	NA	NA	NA	NA	25055.78	NA	NA	NA	(+25.91	NA
4. Hindustan Latex Thiruvananthapuram	1258.00	1258.00	1258.00	1003.00	..	..	3143.00	3397.00	1861.00	546.00	(+357.00	(+276.00
5. Hindustan Newsprint Ltd, Kottayam	8157.99	8253.99	8253.99	102.00	..	..	16477-31	17220.82	6437.65	1934.73	(+2036.02	(+3101.83
6. Indian Rare Earths Ltd.												
a) Rare Earths Division, Aluva.	226.50	226.50	226.50	NA	2587.45	..	927.58	1017.94	755.97	426.39(-)	59.73	(-53.19
(b) Minerals Division, Chavara	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7. Indian Telephone Industries Ltd. Palakkad												
8. Hindustan Insecticides Udyogamandal Instrumentation Ltd., Palakkad												
9. Modern Food Industries (India) Limited, Kochi												
10. HMT Limited, Kalamassery												
11. Balmer Lawrie & Co. Ltd., Aroor												
12. Hindustan Organic Chemicals Ltd, Kochi												
13. Cannanore Spinning and Weaving Mills Kannur												
14. Parvathi Mills, Kollam												
15. Vijayabhini Mills, Thiruvananthapuram												
16. Alagappa Textiles (Cochin) Mills, Thiruvur.												
17. Kerala Lakshmi Mills, Thrissur.												
18. Mills, Thrissur.												

② Gross Profit

APPENDIX 6.12

Production and Capacity Utilisation in Government of India Companies
Working in Kerala: 1989-90 and 1990-91

Name of Company	Name of Product	Unit	Installed Capacity		Production		Capacity Utilisation (in Percentage)	
			1989-90	1990-91	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Cochin Refineries Limited	Petroleum Products	Million MT	4.50	4.50	4.62	5.01	102.67	111.33
2. Cochin Shipyard Limited	(i) Ship Building	DWT	150000	150000	43700	38133	29.13	25.42
	(ii) Ship Repair	Lakh GRT	10	10	3.98	4.64	39.80	46.40
3. Fertilisers & Chemicals Travancore Limited								
(a) Udyogamandal Division	(i) Ammonium Sulphate	MT	198000	NA	124366	NA	62.81	..
	(ii) Ammonium Phosphate 20:20	"	148500	"	102934	"	81.44	..
	(iii) Ammonium Chloride	"	24750	"	310	"	1.25	..
	(iv) Super Phosphate	"	49500	"	12122	"	24.49	..
	(v) Sulphuric Acid	"	30550	"	212300	"	68.81	..
	(vi) Phosphoric Acid	"	33000	"	13434	"	40.71	..
	(vii) Cryolite	"	..	"	..	"	..	..
	(viii) Ammonia	"	112200	"	67865	"	40.49	..
(b) Kochi Division	(i) Ammonia	"	198000	"	111430	"	56.28	..
	(ii) Sulphuric Acid	"	330000	"	253935	"	76.95	..
	(iii) Phosphoric Acid	"	115000	"	479550	"	417.00	..
	(iv) Urea	"	330000	"	164991	"	50.00	..
	(v) NPK Fertilisers	"	485000	"	362998	"	74.84	..
4. Hindustan Latex Limited	Contraceptive Condoms	Million Pieces	572	576	589	606	102.97	105.21
5. Hindustan Newsprint Limited	Newsprint	MT	80,000	80,000	86844	90388	108.56	112.98
6. Indian Rare Earths Limited								
(a) Rare Earths Division, Aluva	(i) Rare Earths Chloride	MT	5,000	5,000	3307	2742	66.14	54.84
	(ii) Trisodium Phosphate	"	5,600	5,600	4287	3579	76.55	63.91
	(iii) Rare Earths Fluoride	"	180	180	157	132	87.22	73.33
	(iv) Rare Earths Oxide	"	60	60	43	18	71.67	30.00
(b) Minerals Division, Chavara	(i) Ilmenite	"	NA	NA	NA	NA	NA	NA
	(ii) Monazite	"	"	"	"	"	"	"
	(iii) Zircon	"	"	"	"	"	"	"
	(iv) Rutile	"	"	"	"	"	"	"
	(v) Silliment	"	"	"	"	"	"	"
	(i) Zircon	"	"	"	"	"	"	"
Indian Telephone Industries Limited	Electronic Switching Equipment	Lines	NA	NA	153918	NA	NA	NA

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. Hindustan Insecticides Ltd.	(i) Technical DDT	Tonnes	1344	1344	1109	882	82.51	65.63
	(u) Formulated DDT	"	2688	2688	1530	1857	56.92	69.08
	(iii) Technical BHC	"	3000	3000	2064	2085	68.80	69.50
	(iv) Formulated BHC	"	3000	3000	2806	2534	93.53	84.47
	(v) Endosulfan	"	800	1600	563	653	70.38	40.81
	(vi) Hildan 35 EC, Hildit 35 EC etc.	Kilo Ltrs.	1910	1910	621	583	32.51	30.52
9. Instrumentation Limited	(i) Process Control Valves	Nos.	4000	NA	3737	NA	93.43	..
	(ii) Safety Relief Valves and Pressure Reducing Valves	"	400	NA	239	NA	59.75	..
	(iii) Miscellaneous Items and Accessories	"	Not fixed	"	2192	"	..	..
	(iv) Orifice Plate/Flow Measuring Devices	"	500	"	79	"	15.80	..
10. Modern Food Industries (India) Limited	(i) Modern Bread	Lakh Nos of 400 gms.	218.32	218.32	227.30	261.67	104.11	19.86
	(ii) Modern Bun	Lakh Nos. of 50 gms						
11. HMT Limited	(i) Machine Tools	Nos.	394*	488*	420	486	106.60	99.59
	(ii) Printing Machines	"	116*	108*	71	90	61.21	89.33
12. Balmer Lawrie and Co. Limited	Marine Freight and Special Containers	"	3600	3600	2582	2447	71.72	67.97
13. Hindustan Organic Chemical Limited	(i) Phenol	MT	40,000	40,000	27974	31832	69.94	79.58
	(ii) Acetone	"	24640	24640	17385	19864	70.56	80.62
	(iii) Propylene	"	..	29000	..	24683	..	85.11
	(iv) Cumene	"	..	54000	..	45681	..	84.59
14. Cannanore Spinning and Weaving Mills	Cotton Yarn	Lakh Kg.	24800 spindles	NA	13.10	NA	..	..
15. Parvathi Mills	(i) Cotton Yarn	Lakh Kg.	24244 Spindles	NA	4.91	NA	..	..
	(ii) Cloth	Lakh Mtrs.	324 Looms	NA	65.72	NA	..	..
16. Vijayamohini Mills	Cotton Yarn	Lakh Kg.	30476 Spindles	NA	11.93	NA	..	..
17. Alagappa Textiles (Cochin) Mills	Cotton Yarn	Lakh Kg.	49564 Spindles	49564 Spindles	17.56	18.14	..	..
18. Kerala Lakshmi Mills	Cotton/Viscos Yarn	Lakh Kg.	41328	41328	14.12	14.64	..	..

* Target for the year

APPENDIX 6.13

District-wise Details of Small Scale Industrial Units Registered in Kerala during the year 1990-91

(Provisional)

Sl.No.	Name of District	Number of SSI Units promoted by					Investment (in lakhs)	Value of goods and services produced (Rs. in lakhs)	Employ- ment Provided (Number)
		S.C.	S.T.	Women	Others	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Thiruvananthapuram	29	12	62	999	1102	1261.02	3495.65	4973
2.	Kollam	75	..	23	562	660	665.43	3944.24	6249
3.	Pathanamthitta	20	3	46	436	505	336.40	1305.08	1968
4.	Alappuzha	23	..	60	791	874	524.08	3150.00	4971
5.	Kottayam	27	3	42	834	906	1532.74	663.21	3060
6.	Idukki	20	30	52	249	351	106.59	725.00	1236
7.	Ernakulam	190	..	105	1208	1503	2121.02	4268.57	5197
8.	Thrissur	39	3	42	775	859	1114.40	4703.25	4972
9.	Palakkad	51	..	43	514	608	577.19	2226.40	4311
10.	Malappuram	29	..	26	298	353	510.42	342.74	1638
11.	Kozhikode	14	..	41	549	604	629.83	2357.26	2398
12.	Wayanad	2	4	5	105	116	51.07	64.72	365
13.	Kannur	1	..	31	259	291	266.53	2589.00	1171
14.	Kasaragod	2	2	6	105	115	105.73	55.93	372
Total		522	57	584	7684	8847	9802.45	29,891.05	42881

Source: Directorate of Industries & Commerce.

APPENDIX 6.14

District-wise Details of Registered Small Scale Units in Kerala as on 31st March 1991.

(Provisional)

Sl.No.	Name of District	Number of SSI Units promoted by					Total investment (Rs. lakhs)	Value of goods and services produced (Rs. in lakhs)	Employ- ment provided (Number)
		S.C.	S.T.	Women	Others	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Thiruvananthapuram	273	81	1112	6436	7902	6305.20	34609.89	29838
2.	Kollam	407	10	804	5314	6535	7350.77	19363.20	89234
3.	Pathanamthitta	161	24	734	1221	2140	698.10	4280.00	9717
4.	Alappuzha	121	3	720	5730	6574	4313.32	45236.30	38249
5.	Kottayam	112	9	749	6571	7441	6970.48	..	31202
6.	Idukki	102	55	407	1580	2144	1107.97	5540.00	7678
7.	Ernakulam	350	3	517	9637	10507	16979.00	36265.00	53520
8.	Thrissur	304	5	558	7354	8221	9887.40	748.75	36578
9.	Palakkad	271	8	490	4246	5015	5776.27	14122.60	37394
10.	Malappuram	429	4	250	2565	3318	4811.10	3649.80	13272
11.	Kozhikode	70	..	524	5632	6226	3161.70	12470.13	36331
12.	Wayanad	42	40	239	813	1134	330.42	230.86	3970
13.	Kannur	117	..	290	4447	4854	4163.00	60027.00	60551
14.	Kasaragod	10	8	157	1336	1511	1425.25	..	17661
Total		2839	250	7551	62882	73522	73279.98	236543.33	445195

Source: Directorate of Industries and Commerce.

APPENDIX 6.15

Working Status of Small Scale Units as on 31st March 1991

(Provisional)

Sl. No.	Name of District	Total Number of registered Units	Number of units identified as		Units revived by DIC during 1990-91
			Sick	closed	
(1)	(2)	(3)	(4)	(5)	(6)
1.	Thiruvananthapuram	7902	315	841	8
2.	Kollam	6535	188	371	2
3.	Pathanamthitta	2140	80	568	2
4.	Alappuzha	6574	150	309	1
5.	Kottayam	7441	133	742	8
6.	Idukki	2144	37	363	2
7.	Ernakulam	10507	154	1796	12
8.	Thrissur	8221	17	8	6
9.	Palakkad	5015	100	345	2
10.	Malappuram	3318	52	492	4
11.	Kozhikode	6226	168	351	3
12.	Wayanad	1194	32	64	1
13.	Kannur	4854	82	566	6
14.	Kasaragod	1511	19	45	3
Total		73552	1527	6861	60

Source: Directorate of Industries and Commerce.

APPENDIX 6.16

Details of Entrepreneurship Development Programme conducted during 1990-91
(Provisional)

Sl. No.	Name of District	Number of Entrepreneurs Trained			Total	No. of trained entrepreneurs who have started SSI
		SC	ST	Others		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Thiruvananthapuram	8	4	70	82	..
2.	Kollam	..	..	..	..	..
3.	Pathanamthitta	95	2	60	157	..
4.	Alappuzha	..	..	58	58	18
5.	Kottayam	10	20	30	60	..
6.	Idukki	..	..	..	..	..
7.	Ernakulam	7	..	..	7	..
8.	Thrissur	..	..	70	70	..
9.	Palakkad	..	..	22	22	..
10.	Malappuram	47	..	31	78	..
11.	Kozhikode	23	..	80	103	..
12.	Wayanad	..	..	23	23	2
13.	Kannur	..	..	30	30	..
14.	Kasaragod	..	..	25	25	..
Total		190	26	499	715	20

Source: Directorate of Industries and Commerce.

APPENDIX 6.17

Achievements under Self Employment Programme During 1990-91

(Provisional)

Sl. No.	Name of District	Applications sanctioned and Amount Disbursed during 1990-91			
		Sanctioned		Disbursement	
		No.	Amount (Rs. lakhs)	No.	Amount (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)
1.	Thiruvananthapuram	1080	182.66	441	101.57
2.	Kollam	556	99.91	185	29.26
3.	Pathanamthitta	258	56.25	258	56.25
4.	Alappuzha	685	134.34	461	86.42
5.	Kottayam	603	124.59	314	62.75
6.	Idukki	141	23.64	78	11.55
7.	Ernakulam	912	171.82	672	118.46
8.	Thrissur	673	111.30	673	111.30
9.	Palakkad	288	46.57	256	36.71
10.	Malappuram	277	42.83	220	31.54
11.	Kozhikode	924	363.31	212	37.57
12.	Wayanad	49	5.09	39	4.08
13.	Kannur	409	66.00	327	48.29
14.	Kasaragod	466	77.75	49	6.87
Total		7321	1506.06	4185	742.62

Source: Directorate of Industries and Commerce.

APPENDIX 6.18

District wise Details of Artisans Units Started During 1990-91

(Provisional)

Sl. No.	Name of District	Number of Artisans Units Started During 1990-91										Grand Total (7)+(12)
		Rural Areas					Urban Areas					
		SC.	ST.	Women	Others	Total	SC.	ST.	Women	Others	Total	
(8)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Thiruvananthapuram	4	..	70	61	135	..	..	..	..	..	135
2.	Kollam	11	..	11	40	62	..	..	..	..	..	62
3.	Pathanamthitta	39	5	17	243	304	..	..	..	..	..	304
4.	Alappuzha	10	..	24	89	123	2	..	2	13	17	140
5.	Kottayam	1	..	10	22	33	..	..	4	5	9	42
6.	Idukki	5	..	62	83	150	..	..	..	..	..	150
7.	Ernakulam	48	..	6	..	54	..	..	..	..	..	54
8.	Thrissur	818	19	889	1399	3125	..	..	..	..	..	3125
9.	Palakkad	261	..	101	117	479	..	..	..	..	..	479
10.	Malappuram	..	..	9	39	48	..	..	..	..	..	48
11.	Kozhikode	..	..	7	24	31	..	..	..	..	..	31
12.	Wayanad	82	15	43	39	179	..	..	..	..	..	179
13.	Kannur	81	27	40	89	237	..	..	..	..	..	237
14.	Kasaragod	..	..	18	29	47	..	..	..	..	..	47
Total		1360	66	1307	2274	5007	2	..	6	18	26	5033

Source: Directorate of Industries and Commerce.

APPENDIX 6.19

Industrial Co-operative Societies in Kerala

(Provisional)

Sl. No.	District	Industrial Co-operative Societies registered during 1990-91	Total No. of Industrial Co-operative Societies as on 30-6-1991							Total Col. (4 to 6)
			Beedi industrial Co-operative Societies			Other Industrial Co-operative Societies				
			Primary	Central	SC	ST	Women	Others		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1.	Thiruvananthapuram	8	8	..	3	..	5	186	202	
2.	Kollam	..	2	..	13	1	27	130	173	
3.	Pathanamthitta	8	..	..	6	3	18	54	81
4.	Alappuzha	8	1	..	21	3	41	144	210	
5.	Kottayam	2	2	..	9	1	1	16	36	
6.	Idukki	12	2	..	15	9	19	11	56	
7.	Ernakulam	..	1	..	10	1	16	15	43	
8.	Thrissur	3	3	..	14	1	42	163	223	
9.	Palakkad	6	3	1	23	6	18	29	80	
10.	Malappuram	3	..	..	7	1	15	63	86
11.	Kozhikode	6	9	..	7	4	..	67	87	
12.	Wayanad	2	..	..	1	1	..	24	26
13.	Kannur	6	14	1	18	3	26	47	109	
14.	Kasaragod	3	7	..	2	1	9	21	40	
Total		67	50	2	149	35	243	970	1449	

Source: Directorate of Industries and Commerce.

District-wise sanction and Disbursement of loans by Kerala Financial Corporation during 1990-91

(Provisional)

District	Sanction (Effective)		Disbursement	
	No. of loans	Amount (Rs. in lakhs)	No. of Loans	Amount (Rs. in lakhs)
(1)	(2)	(3)	(4)	(5)
I. Backward Districts				
<i>Category—A</i>				
1. Idukki	150	386.57	119	309.23
2. Wayanad	66	182.31	85	146.72
<i>Category—B.</i>				
3. Alappuzha	138	622.24	132	458.63
4. Malappuram	88	499.53	81	320.41
5. Kannur	190	442.89	176	430.16
6. Kasargode	60	216.29	51	111.60
<i>Category—C</i>				
7. Thiruvananthapuram	179	666.83	147	558.76
8. Thrissur	125	640.66	99	656.69
Total:	996	3657.32	890	2992.20
II. Non Backward Districts				
9. Pathanamthitta	58	237.12	69	201.51
10. Kollam	206	538.33	202	485.00
11. Kottayam	106	563.27	114	404.52
12. Ernakulam	243	1211.81	181	1005.83
13. Palakkad	128	459.77	114	320.57
14. Kozhikode	306	881.78	263	607.78
III. Union Territory of Lakshadweep				
Total	1047	3892.08	943	3025.21
Grand Total	2043	7549.40	1833	6017.41

Source: Kerala Financial Corporation.

APPENDIX 6.22

Industry-wise classification of loans sanctioned and disbursed by Kerala Financial Corporation

Type of Industry	(Rs. in lakhs) (Provisional)							
	During 1990-91				Upto 31-3-1991			
	Amount sanctioned	Percentage to total	Amount disbursed	Percentage to total	Amount sanctioned	Percentage to total	Amount disbursed	Percentage to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Stone Quarrying	155.93	2.07	49.41	0.82	582.99	1.36	290.99	0.89
2. Food Manufacturing	677.03	8.97	579.73	9.63	4532.01	10.58	3064.24	9.34
3. Beverage units	17.92	0.24	8.75	0.15	259.49	0.61	178.06	0.54
4. Tobacco Manufacturing	..	..	..	..	1.00	..	0.42	..
5. Textiles	346.04	4.58	197.30	3.28	1467.93	3.43	1118.65	3.41
6. Foot Wear and other Wearing Apparels	0.45	0.01	1.06	0.02	184.26	0.43	109.45	0.33
7. Wood Cork Except Furniture	42.66	0.57	95.87	1.59	722.69	1.69	695.36	2.12
8. Furniture and Fixtures	332.99	4.41	92.16	1.53	1345.26	3.14	762.86	2.32
9. Paper products	32.51	0.43	71.08	1.18	895.17	2.09	632.34	1.93
10. Printing Publishing and Other Allied Industries	47.00	0.62	114.10	1.90	1113.37	2.60	1016.33	3.10
11. Leather Goods	4.13	0.05	11.60	0.19	10.58	0.02	17.21	0.05
12. Rubber Goods	979.24	12.97	527.38	8.76	4459.25	10.41	2928.28	8.92
13. Chemicals and Chemical products	84.71	1.12	78.01	1.30	2145.76	5.01	1629.25	4.96
14. Petroleum Products	..	..	..	..	9.37	0.02	9.49	0.03
15. Non meta Industries	185.64	2.46	434.62	7.22	2058.21	4.81	1407.24	4.29
16. Basic Metal Industries	4.11	0.05	..	..	330.11	0.77	290.32	0.88
17. Metallic Products	818.24	10.84	166.83	2.77	2676.16	6.25	1232.98	3.76
18. Machinery Except Electrical Machinery	35.31	0.47	1.07	0.02	302.59	0.71	275.38	0.84
19. Electrical Machinery	3.35	0.04	6.74	0.11	699.70	1.63	816.76	2.49
20. Transport equipment	0.88	0.01	4.02	0.07	598.70	1.40	577.39	1.76
21. Motion Pictures	..	..	..	..	91.34	0.21	79.48	0.24
22. Hotels	436.70	5.78	373.51	6.21	3488.73	8.14	2350.17	7.16
23. Fishing Boats	..	..	..	..	231.00	0.54	234.82	0.72
24. Transport	2458.55	32.57	1765.24	29.34	7659.42	17.88	6384.74	19.45
25. Industrial Estates	..	..	..	..	30.00	0.07	30.00	0.09
26. Miscellaneous Industries	886.01	11.74	1438.93	23.91	6941.30	16.20	6688.46	20.38
Total	7549.40	100.00	6017.41	100.00	42836.39	100.00	32820.67	100.00

Source: Kerala Financial Corporation.

APPENDIX 6.23

Khadi and Village Industries Production, Sales, Employment and Wages during 1990-91

Sl. No.	Name of Industry	Value of Production (Rs. lakhs)	Value of Sales (Rs. lakhs)	Employment (Nos)			Wages paid	
				Full Time	Part time	Casual	Total	(Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A.	Khadi	364.14	591.25	11604	..	..	11604	229.97
B.	Village Industries							
1.	P. C. P. Industry	407.65	477.21	4431	4577	..	9008	113.29
2.	Village Oil	1141.47	1280.84	928	955	..	1883	58.30
3.	Village Leather	521.81	566.22	1811	858	..	2669	86.25
4.	Cottage Match	394.61	410.04	2673	4077	..	6750	86.50
5.	Gur Khandsari	79.50	86.12	410	245	176	831	17.79
6.	Palmgur	200.03	236.78	463	26890	..	27353	95.91
7.	Non-edible oil & soap	168.95	188.18	245	427	..	672	21.04
8.	Handmade Paper	23.04	24.07	313	..	..	313	7.93
9.	Beekeeping	968.92	979.30	5152	25161	..	30313	757.00
10.	Pottery	801.06	817.67	16077	3494	..	19571	416.10
11.	Fibre	569.43	635.10	54757	8741	..	63498	397.53
12.	Carpentry and Black Smithy	701.37	713.56	4419	571	..	4990	213.43
13.	Lime	394.24	459.84	2671	1636	..	4307	133.10
14.	F. V. P.	229.78	272.76	857	1213	..	2070	41.93
15.	Cane and Bamboo	175.26	171.25	1012	2921	..	3933	89.12
16.	Aluminium	146.08	152.25	466	182	..	648	48.47
17.	Agarbathy	47.72	42.00	545	100	..	645	7.49
18.	Rubber	43.44	47.48	254	156	..	410	3.46
19.	Polivastra	25.27	17.37	442	..	..	422	9.54
20.	Service	..	46.51	213	..	..	213	26.02
21.	Ayurvedic Medicine	1.26	0.25	9	8	32	49	0.39
22.	N. V. I.	21.90	18.55	35	13	..	48	8.75
23.	Textile	51.10	56.20	681	..	..	681	10.09
	Sub Total (B)	7113.89	7699.55	98864	82225	208	181297	2649.43
	Total (A + B)	7478.03	8290.80	110468	82225	208	192901	2879.40

APPENDIX 6.24

Coir Co-operative Societies in Kerala

Type of Society	Number of societies as on	
	31-3-1990	31-3-1991
(1)	(2)	(3)
1. Primary Coir Co-operative Societies:		
(a) Working	423	447
(b) New Societies which have not started working	100	58
(c) Dormant Societies	60	56
(d) Societies under liquidation	187	192
Total	770	753
2. Manufacturing Societies:		
(a) Working	18	22
(b) New societies which have not started working	28	20
(c) Dormant Societies	4	6
(d) Societies under liquidation	3	3
Total	53	51
3. Small Scale Producers Co-operative Societies:		
(a) Working	7	7
(b) New Societies which have not started working	..	1
(c) Dormant Societies	..	..
(d) Societies under liquidation	..	..
Total	7	8

4. Husk Procurement and Distribution Societies		
(a) Working	2	2
(b) New Societies which have not started Working	..	..
(c) Dormant Societies	3	..
(d) Societies under liquidation	7	7
Total	12	9
5. Fibre Societies		
(a) Working	..	..
(b) New Societies which have not started working	..	..
(c) Dormant Societies	..	..
(d) Societies under liquidation	1	..
Total	1	..
6. Co-operative Coir Marketing Federation		
	1	1
7. Total number of Coir Co-operative Societies		
(a) Working	451	479
(b) New Societies which have not started working	128	79
(c) Dormant Societies	67	62
(d) Societies under liquidation	198	202
Grand Total	844	822

APPENDIX 6.25

Activities of the Coir Co-operative Societies

(a) Primary Coir Co-operative Societies :

Year	Number of working Societies	Number of members ('000)	Husk Purchased		Yarn Produced		No. of workers ('000)	Wages paid (Rs. lakhs)
			Number (in lakhs)	Value (Rs. lakhs)	Quantity (tonnes)	Value (Rs. lakhs)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1988-89	419	232	1341	273.00	11647	793.00	77	409.00
1989-90	423	227	1181	271.00	11106	782.00	77	431.00
1990-91	447	246	1554	314.00	12377	961.00	80	572.00

(b) Manufacturing Societies

Year	Number of working Societies	Number of Members ('000)	Value of Production (Rs. lakhs)	Number of worker	Wages paid (Rs. lakhs)	Value of export (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1988-89	24	3549	376.00	1998	64.00	NA
1989-90	25	3662	410.18	2045	65.90	NA
1990-91	29	4343	652.54	1898	86.73	N.A

APPENDIX 6.26

Export of Coir and Coir Products from India during 1989-90 and 1990-91

Item	1989-90		1990-91	
	Quantity (tonnes)	Value (Rs. lakhs)	Quantity (tonnes)	Value (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)
1. Coir fibre	49	3.70	41	3.17
2. Coir Yarn	13770	1369.67	14110	1705.85
3. Coir mats	8273	1571.68	9009	2021.86
4. Coir mattings	3580	744.92	3363	794.53
5. Coir Rugs and Carpets	1573	289.10	1208	268.07
6. Coir (other sorts)	46	7.70	51	13.10
7. Coir Rope	74	8.85	112	15.19
8. Rubberised coir products	26	18.12	16	10.06
9. Curled coir	67	4.03	16	1.02
Total :	27458	4017.77	27926	4832.85

APPENDIX 6.27

Production and Productivity in Handloom Industry

Sl.No.	Item	1989-90	1990-91
(1)	(2)	(3)	(4)
1.	Estimated total number of Handlooms in the State	51629	52,000
2.	Number of looms in Co-operative Sector	40,241	40,591
3.	Percentage of 2 to 1	77.94	78.05
4.	Co-operative Sector:		
	(i) Production of Handloom Cloth (Million Metres)	43.00	43.50
	(ii) Value of Production (Rs. crores)	51.00	65.25
	(iii) Productivity (Metre/loom)	1068.00	1071.00
5.	Corporate Sector:		
	(i) Number of looms under the Handloom Development Corporation	6134	6361
	(ii) Production of Handloom Cloth (Million Metres)	2.15	1.48
	(iii) Value of Production (Rs. crores)	2.46	2.22
	(iv) Productivity (Metre/loom)	350	233
6.	Unorganised Sector:		
	(i) Number of looms in the Unorganised (Private) Sector	5254	5048
	(ii) Production of Handloom Cloth (Million Metres)	10.00	9.60
	(iii) Value of Production (Rs. crores)	8.00	14.40
	(iv) Productivity (Metres/looms)	1903	1903
7.	Total (Co-operative, Corporate and Unorganised Sectors)		
	(i) Production of Handloom Cloth (Million Metres)	55.15	54.58
	(ii) Value of Production (Rs. crores)	61.46	81.87
	(iii) Productivity (Metre/loom)	1068	1050
8.	(a) Assistance extended by way of loan and subsidy for the Development of Handloom Industry during 1990:91 (Rs. in lakhs)		
	(i) Loan:		
	State Government	70.18	172.55
	Central Government	60.76	54.00
	NCDC	18.24	88.00
	Total	149.28	244.55
	(ii) Subsidy and Grant		
	State Government	206.66	115.50
	Central Government	130.83	47.35
	NCDC	15.92	..
	Total	353.41	162.85

(1)	(2)	(3)	(4)
(b)	Amount spent as rebate on the sale of Handloom Cloth during 1990-91 (Rs. in lakhs)		
	State Government	595.50	149.72
	Central Government	..	399.64
	Total	595.50	549.36
9.	Value of Unsold Stock (Rs. crores)		
	(a) in the co-operative sector	16.83	12.15
	(b) in the Corporate sector	2.00	3.38
	Total (a+b)	18.83	15.53
10.	Number of Co-operative Societies		
	(a) Factory Type societies		
	(i) Working Societies	106	110
	(ii) Dormant	2	9
	(i) Under liquidation	2	11
	Total (a)	110	130
	(b) Cottage Type Societies		
	(i) Working Societies	361	361
	(ii) Dormant	39	37
	(iii) Under liquidation	82	79
	Total (b)	482	477
	Grand Total (a+b)	592	607

APPENDIX—6.28

Working Results of Handloom Apex Society (Hantex)

Sl. No.	Particulars	For the years	
		1989-90	1990-91
(1)	(2)	(3)	(4)
		(31-3-1991)	
1.	Sales Turn over (Rs. Crores)	10.34	11.15
2.	Procurement of Cloth (Rs. crores)	8.65	8.96
3.	Purchase of Yarn (Rs. crores)	2.42	2.99
4.	Distribution of Yarn (Rs. crores)	2.48	3.00
5.	Garment sold (Rs. lakhs)	..	..
6.	Janatha Production (Rs. lakhs)	5.30	9.95
	(Qty. in lakh/Metre)	0.80	..
7.	Polyster Shirting, Double Veshty, Single Veshty— Production (Rs. lakhs)	60.20	36.59
8.	Processed goods		
	(a) Production (Metres)	..	4.95
	(b) Value (Rs. lakhs)	..	(lakh metres)
9.	Number of exhibitions conducted	54	66

APPENDIX—6.29

Working Results of Kerala State Handloom Development Corporation Ltd. Kannur.

SL No.	Particulars	(Rs. in lakhs)	
		for the years	
		1989-90	1990-98
(1)	(2)	(3)	(4)
1.	Paid up capital (as at the end of the year)	222.14	388.03
2.	Borrowings	603.70	507.58
3.	Gross Block	90.09	90.45
4.	Value of production	245.85	221.95
5.	Income through revenue receipts	34.92	14.29
6.	Income through sale of production (G/P)	84.04	110.94
7.	Total Expenditure (Total Administrative expenses)	129.19	155.03
8.	Expenditure for Raw material consumed	326.26	330.40
9.	Expenditure for personnel payments	56.45	70.29
10.	Expenditure for depreciation	6.00	5.00
11.	Expenditure for interest and Bank charges	21.40	25.53
12.	Net Profit(+)/Net Loss(-)	10.23	35.03
13.	Accumulated loss	(-)62.18	(-)99.43

APPENDIX—6.30

Production and Productivity—Powerloom Industry

Sl. No.	Item	For the years	
		1989-90	1990-91
		(3)	(4)
(1)	(2)	(3)	(4)
1.	Estimated Number of Powerloom in the State	4859	4859
2.	Number of looms in the Co-operative Sector	880	880
3.	Percentage of 2 to 1	18.11	18.11
4.	Number of Powerloom Co-operative Societies	20	21
5.	Number of members in these societies	780	828
6.	Co-operative Sector		
	(i) Production of Cloth (1 lakh metres)	41	38
	(ii) Value of Production (Rs. lakhs)	320	360
	(iii) Productivity (Metre/loom)	4659	4318
7.	Unorganised Sector		
	(i) Production of Cloth (lakh metres)	60	50
	(ii) Value of Production (Rs. lakhs)	650	677
	(iii) Productivity (Metre/loom)	1508	1256
8.	Total (Co-operative and unorganised sectors)		
	(i) Production (lakh metres)	101	88
	(ii) Value of Production (Rs. lakhs)	970	1037
	(iii) Productivity (Metre/loom)	2079	1811

APPENDIX—6.31

District-wise Quantity of Rawmuts procured in 1991 cashew season

District	Quantity (MT)		Procurement price Rs. Kg.		Selling Price to Factories Rs. Kg.	
	Target	Achievement	upto 11-4-1991	from 12-4-1991	Upto 11-4-1991	from 12-4-1991
	(2)	(3)	(4)	(5)	(6)	(7)
1. Thiruvananthapuram	4000	1721	13.00	14.50	14.75	16.25
2. Kollam	7000	2997	13.00	14.50	14.75	16.25
3. Pathanamthitta	2000	801	13.00	14.50	14.75	16.25
4. Alappuzha	1500	1369	13.00	14.50	14.75	16.25
5. Kottayam	2000	373	13.50	15.00	15.25	16.75
6. Ernakulam	2500	603	13.50	15.00	15.25	16.75
7. Idukki	1000	523	13.50	15.00	15.25	16.75
8. Thrisur	8500	4314	14.00	15.50	15.75	17.25
9. Palakkad	3500	2198	14.00	15.50	15.75	17.25
10. Malappuram	14000	8030	14.00	15.50	15.75	17.25
11. Kozhikode	7000	5066	14.00	15.50	15.75	17.25
12. Wayanad	1000	766	14.00	15.50	15.75	17.25
13. Kannur	32000	22160	14.50	16.00	16.25	17.75
14. Kasaragod	14000	7516	14.50	16.00	16.25	17.75
Total:	100000	58437	..	..	..	..

APPENDIX—6.32

*Foreign Exchange Earnings of India from Cashew Industry**(Value Rs. Crores)*

Year	Export Value		Total	Import value of cashewnuts	Net foreign exchange earned (4)-(5)
	Cashew kernels	Cashewnut shell liquid			
(1)	(2)	(3)	(4)	(5)	(6)
1976-77	105.99	1.08	107.07	18.33	88.74
1977-78	149.54	1.07	150.61	17.98	132.63
1978-79	80.37	4.80	85.17	9.16	76.01
1979-80	118.26	14.59	132.85	11.60	121.25
1980-81	141.09	6.84	147.93	19.57	128.36
1981-82	181.50	2.35	183.85	18.37	165.48
1982-83	135.36	1.80	137.16	1.41	135.75
1983-84	150.87	1.36	152.23	22.12	130.11
1984-85	179.67	2.03	181.70	38.84	142.86
1985-86	225.11	1.35	226.46	24.37	202.09
1986-87	327.55	1.48	329.03	71.16	257.87
1987-88	311.29	5.03	316.32	64.38	251.94
1988-89	273.93	2.20	276.13	61.37	214.76
1989-90	360.34	2.53	362.87	72.44	290.43
1990-91	442.44	3.15	445.59	114.53	331.06

Source: The Cashew Export Promotion Council, Cochin.

APPENDIX—6.33

*Imports of Raw Cashewnuts into India**(Rs. in Crores)*

Year	Quantity (M.T.)	Index (1976-77=100)	Value	Index (1976-77=100)
1976-77	75122	100.00	18.33	100.00
1977-78	56299	74.94	17.98	98.09
1978-79	20496	27.28	9.16	49.97
1979-80	24222	32.24	11.60	63.28
1980-81	25715	34.23	19.57	106.76
1981-82	16057	21.37	18.37	100.22
1982-83	1485	1.98	1.41	7.69
1983-84	26877	35.78	22.12	120.68
1984-85	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	42609	56.72	64.38	351.23
1988-89	45150	60.10	61.37	334.81
1989-90	52474	69.85	72.44	395.20
1990-91	72506	96.52	114.53	624.82

APPENDIX 6.34

Revenue Collection from Mining Sector: 1985-86 to 1990-91

(Rs. in lakhs)

Sl. No.	Year	Minor Minerals	Major Minerals	Total
(1)	(2)	(3)	(4)	(5)
1.	1985-86	5.28	52.34	57.62
2.	1986-87	6.11	44.02	50.13
3.	1987-88	8.79	103.13	111.92
4.	1988-89	15.02	110.55	125.57
5.	1989-90	..	..	145.56
6.	1990-91	..	..	107.91

Source: Department of Mining and Geology

APPENDIX 7.1

Distribution of Public Works Department Roads Improved/Developed/Taken over during 1990-91

Sl. No.	Name of District	Taken over (Village Roads)	
		No.	Kms
(1)	(2)	(3)	(4)
1.	Thiruvananthapuram	14	49.009
2.	Kollam	3	8.827
3.	Pathanamthitta	4	19.225
4.	Alappuzha	nil	nil
5.	Kottayam	5	29.824
6.	Idukki	nil	nil
7.	Ernakulam	5	14.004
8.	Thrissur	nil	nil
9.	Palakkad	8	74.385
10.	Malappuram	4	17.775
11.	Kozhikode	10	32.725
12.	Wayanadu	2	15.790
13.	Kannur	10	60.947
14.	Kasaragod	10	70.472
Total		75	392.983

Source: Public Works Department provisional

APPENDIX 7.2

Division-wise and surface-wise Length of Roads Maintained by Public Works Department as on 1-4-1991

(Kms)

Sl. No.	Name of Division	Cement Concrete	Black Topped	Water Bound Mecadam	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Thiruvananthapuram	..	1581.852	54.901	90.891	1727.644
2.	Kollam	..	1494.708	60.577	105.309	1660.594
3.	Pathanamthitta	0.800	1308.857	30.535	147.327	1487.519
4.	Alappuzha	..	872.728	9.051	105.238	987.017
5.	Kottayam	16.000	1861.861	26.100	96.741	2000.702
6.	Idukki	..	975.683	61.298	463.995	1500.976
7.	Muvattupuzha	..	1085.888	23.512	38.037	1147.437
8.	Ernakulam	0.572	729.449	10.840	81.679	822.540
9.	Thrissur	3.391	1385.576	21.344	129.898	1540.209
10.	Palakkad	..	1279.574	69.193	184.400	1533.167
11.	Manjeri	..	1397.713	168.310	17.775	1583.798
12.	Kozhikode	..	1087.974	12.350	144.638	1244.962
13.	Wayanad	..	501.526	10.650	114.310	626.486
14.	Kannur	4.112	1121.392	8.00	375.716	1509.220
15.	Kasaragod	..	706.589	7.00	197.567	911.156
Total		24.875	17391.370	573.661	2293.521	20283.427

Source: Public Works Department

Provisional

APPENDIX—7.3

Distribution of Public Works Department Roads (Division-wise) as on 1-4-1991

(Kms)

Sl. No.	Name of Division	State Highways	Major District Roads	Other District Roads	Village Roads	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Thiruvananthapuram	80.700	292.766	1256.437	97.741	1727.644
2.	Kollam	167.576	446.992	1033.436	12.590	1660.594
3.	Pathananhitta'	174.022	449.284	727.410	136.803	1487.519
4.	Alappuzha	112.525	122.920	652.489	99.083	987.017
5.	Kottayam	256.911	682.817	908.778	152.196	2000.702
6.	Idukki	238.119	511.860	472.693	278.304	1500.976
7.	Muvattupuzha	89.760	502.840	526.944	27.893	1147.437
8.	Ernakulam	56.412	359.500	395.523	11.105	822.540
9.	Thrissur	211.636	470.225	754.284	104.064	1540.209
10.	Palakkad	143.507	721.100	568.215	100.345	1533.167
11.	Manjeri	164.438	397.247	652.851	369.262	1583.798
12.	Kozhikode	70.564	312.134	398.149	464.115	1244.962
13.	Wayanad	40.070	327.631	148.456	110.329	626.486
14.	Kannur	55.127	290.019	893.858	270.216	1509.220
15.	Kasaragod	28.969	84.593	544.558	253.036	911.156
	Total	1890.336	5971.928	9934.081	2487.082	20283.427

Source: Public Works Department
Provisional

APPENDIX—7.4

Surface-wise Length of Roads under Public Works Department—Roads by Category

(Kms)

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 1-4-1990	16.612	8.263	..	..	24.875
Length added in 1990-91	..	..	..	..	..
Length as on 31-3-1991	16.612	8.263	..	..	24.875
Black Topped						
Length as on 1-4-1990	1901.086	5843.470	8112.510	1077.393	16934.459	
Length added in 1990-91	(-)43.117	(+)52.760	(+)1102.510	(-)655.242	(+)456.911	
Length as on 31-3-1991	1857.969	5896.230	9215.020	422.151	17391.370	
Water Bound Macadam						
Length as on 1-4-1990	8.350	63.051	357.184	183.234	611.819	
Length added in 1990-91	..	(-)8.587	(-)99.182	(+)69.611	(-)38.158	
Length as on 31-3-1991	8.350	54.464	258.002	252.845	573.661	
Others						
Length as on 1-4-1990	0.920	20.581	628.576	1614.634	2264.711	
Length added in 1990-91	(+)6.485	(-)7.610	(-)167.517	(+)197.452	(+)28.810	
Length as on 31-3-1991	7.405	12.971	461.059	1812.086	2293.521	
Total						
Length as on 1-4-1990	1926.968	5935.365	9098.270	2875.261	19835.864	
Length added in 1990-91	(-)36.632	(+)36.563	(+)835.811	(-)338.179	(+)447.563	
Length as on 31-3-1991	1890.336	5971.928	9934.081	2487.082	20283.427	
Total No. of bridges	..	..	..	..	2137
No. of Major Bridges	..	..	..	..	637
No. of culverts	..	..	..	..	41803
No. of Unsafe bridges	..	..	..	..	243
No. of Unsafe culverts	..	..	..	..	3021

Source: Public Works Department
Provisional

APPENDIX 7.5

Type-wise Length of Roads under Panchayats

SLNo.	Name of District	(Kms.)							
		Black topped and metalled			Gravelled	Earthen		Total	
		As on 1-4-1990	As on 1-4-1991	As on 1-4-1990	As on 1-4-1991	As on 1-4-1990	As on 1-4-1990	As on 1-4-1990	As on 1-4-1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Thiruvananthapuram	680	978	1961	1716	6993	7188	9634	9882
2.	Kollam	580	591	4385	4385	8366	8366	13331	13342
3.	Pathanamthitta	83	87	2194	2207	4083	4850	6360	7144
4.	Alappuzha	188	246	3156	3108	2319	2406	5653	5760
5.	Kottayam	611	351	1333	1333	4197	4148	6141	5832
6.	Idukki	100	112	365	554	4634	4901	5099	5567
7.	Ernakulam	1087	1086	2416	2446	3779	3831	7282	7363
8.	Thrissur	1187	1322	4240	4240	5723	5723	11150	11285
9.	Palakkad	1198	1245	874	1087	3414	3538	5486	5870
10.	Malappuram	522	521	1722	1711	5091	5011	7335	7243
11.	Kozhikode	471	610	2100	1822	3151	3529	5722	5961
12.	Wayanadu	658	950	150	..	1915	1890	2723	2840
13.	Kannur	381	368	2510	1737	3945	4631	6836	6736
14.	Kasaragodu	290	326	1955	1961	1944	1910	4189	4197
	Total	8036	8793	29361	28307	59554	61922	96951	99022

APPENDIX 7.6

Road accidents in which Motor Vehicles were involved in Kerala during 1990-91

SLNo.	Name of District	No. of road accident		No. of persons injured		No. of person killed	
		1989-90	1990-91	1989-90	1990-91	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Thiruvananthapuram City	985	1279	868	1264	77	72
2.	Thiruvananthapuram Rural	865	925	1052	1131	115	109
3.	Kollam	1403	1739	2126	2533	132	131
4.	Pathanamthitta	633	807	1004	893	59	56
5.	Alappuzha	1201	1627	1596	1997	135	118
6.	Kottayam	1199	1824	1543	2286	136	144
7.	Idukki	352	337	844	828	47	36
8.	Ernakulam City	1443	1261	1494	1386	100	84
9.	Ernakulam Rural	1123	1438	1406	1676	139	146
10.	Thrissur	1260	1389	1972	2055	224	186
11.	Palakkad	1476	1581	2264	2408	161	156
12.	Malappuram	1788	2011	3273	3266	169	179
13.	Kozhikode City	1307	1768	1666	1756	74	71
14.	Kozhikode Rural	947	1042	1825	1564	66	57
15.	Wayanadu	450	448	597	609	30	39
16.	Kannur	970	1105	1709	1911	96	87
17.	Kasaragode	327	314	519	408	54	52
18.	Railways	..	5	..	1	..	..
	Total	17729	20900	25758	27972	1814	1717

APPENDIX 7.7

Motor Vehicle accidents in Kerala by Primary cause of accidents 1990-91

Sl.No.	District	Fault of driver of motor vehicle	Fault of driver of vehicle other than motor vehicle	Fault of cyclists	Fault of pedestrian	Fault of passengers	Defect in mechanical condition of motor vehicles	Defective road surface	Bad weather condition	Other causes	Causes not known	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Thiruvananthapuram City	1146	..	..	..	..	10	..	..	123	..	1279
2.	Thiruvananthapuram Rural	816	..	16	6	12	36	10	2	21	6	925
3.	Kollam	1656	..	9	18	2	37	..	..	..	17	1739
4.	Pathanamthitta	661	..	14	29	23	27	19	8	15	11	807
5.	Alappuzha	1580	2	5	7	10	3	..	..	..	20	1627
6.	Kottayam	1554	22	11	10	8	13	3	..	18	184	1824
7.	Idukki	296	18	1	..	3	19	..	..	..	..	337
8.	Ernakulam City	1056	..	63	42	48	2	1	..	23	26	1261
9.	Ernakulam Rural	1403	..	5	18	3	..	..	..	5	4	1438
10.	Thrissur	1372	..	2	..	3	2	..	..	7	3	1389
11.	Palakkad	1550	1	10	7	3	..	..	..	6	4	1581
12.	Malappuram	1965	..	10	7	6	17	..	..	1	5	2011
13.	Kozhikode City	1689	..	9	50	17	3	..	..	..	..	1768
14.	Kozhikode Rural	1000	..	12	6	4	19	1	..	..	..	1042
15.	Wayanadu	430	..	12	1	3	..	..	..	1	1	448
16.	Kannur	1096	..	3	..	..	..	..	..	6	..	1105
17.	Kasargod	307	..	1	2	..	1	..	1	2	..	314
18.	Railways	5	..	..	..	..	..	..	..	..	..	5
	Total	19582	43	183	203	145	189	34	11	228	282	20900

APPENDIX 7.8

Number of road accidents to the class of vehicles involved during 1990-91

Sl. No.	District	K.S.R.T.C.	Other Buses	Goods vehicles	Taxi Cars	Motor Cars	Auto-rickshaws	Jeeps	Two wheelers	Miscel. vehicles	Class not known	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1.	Thiruvananthapuram City	224	4	91	121	90	339	11	354	66	9	1309
2.	Thiruvananthapuram Rural	220	98	118	194	64	70	112	195	17	9	1097
3.	Kollam	120	189	247	166	138	287	93	378	121	..	1789
4.	Pathanamthitta	54	102	92	122	26	141	37	131	91	11	807
5.	Alappuzha	152	126	279	130	101	273	34	411	101	20	1627
6.	Kottayam	124	307	241	122	211	373	165	455	30	..	2028
7.	Idukki	15	59	31	6	7	38	131	38	11	1	337
8.	Ernakulam City	82	211	96	3	222	210	35	428	175	19	1481
9.	Ernakulam Rural	72	233	215	93	60	230	97	287	145	10	1442
10.	Thrissur	64	316	267	204	30	295	53	296	35	3	1563
11.	Palakkad	17	322	251	45	130	168	144	395	101	8	1581
12.	Malappuram	23	463	230	46	69	559	367	191	87	5	2040
13.	Kozhikode City	14	628	161	7	115	332	28	326	157	..	1768
14.	Kozhikode Rural	24	259	126	23	24	242	214	145	41	2	1100
15.	Wayanadu	30	28	52	4	10	84	131	81	28	..	448
16.	Kannur	9	369	118	37	33	213	122	114	90	..	1105
17.	Kasargod	7	49	57	15	21	77	36	40	10	2	314
18.	Railways	..	2	1	..	..	..	1	1	..	..	5
	Total	1251	3765	2673	1338	1351	3931	1811	4266	1306	99	21791

APPENDIX—7.9

Motor Vehicle Accidents by time of day—1990-91

Sl. No.	District	Day light	Darkness	Time not known	Total
1.	Thiruvananthapuram City	951	328	..	1279
2.	Thiruvananthapuram Rural	694	221	10	925
3.	Kollam	1298	441	..	1739
4.	Pathanamthitta	584	212	11	807
5.	Alappuzha	1098	514	15	1627
6.	Kottayam	1710	114	..	1824
7.	Idukki	283	54	..	337
8.	Ernakulam City	756	501	4	1261
9.	Ernakulam Rural	1255	181	2	1438
10.	Thrissur	1329	57	3	1389
11.	Palakkad	1159	416	6	1581
12.	Malappuram	1665	346	..	2011
13.	Kozhikode City	1455	313	..	1768
14.	Kozhikode Rural	857	184	1	1042
15.	Wayanadu	363	85	..	448
16.	Kannur	884	221	..	1105
17.	Kasaragod	255	59	..	314
18.	Railways	4	1	..	5
Total:		16600	4248	52	20900

APPENDIX—7.10

Growth of Motor Vehicles in Kerala since 1975

Sl. No.	Type of Vehicles	1975	1980	1985	1986	1987	1988	1989	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1.	Good Vehicles									
	(i) Four Wheelers & above	15785	20128	36699	40398	45144	49779	50027	51530	54753
	(ii) Three wheelers including Tempos	..	993	4170	4927	6140	7609	8501	9576	11437
2.	Buses									
	(i) State Carriages	7828	8705	12910	13497	13102	13741	14432	15056	15606
	(ii) Contract Carriages/Omni buses	..	842	2324	2652	3602	4380	4602	5234	5848
3.	Cars and Station Wagons									
	(i) Cars	44497	54381	75731	82222	89023	101731	109814	116676	125769
	(ii) Station Wagons	..	196	507	664	682	777	855	849	891
	(iii) Taxi Cars	11525	17780	28189	30201	32458	33856	36200	37638	37830
	(iv) Jeeps	5859	7023	12972	14721	17012	19893	22225	24351	26133
4.	Three Wheelers									
	(i) Autorickshaw	3125	7397	24383	30537	35838	44116	49396	58165	67317
	(ii) Motorised Cycle rickshaw	..	38	54	55	58	59	59	62	53
5.	Two Wheelers									
	(i) Motorised Cycles	..	58	73	73	73	75	72	70	63
	(ii) Scooter/Motor cycles	25769	50493	11629	130992	159863	185349	213849	248374	288498
6.	Tractor, Trailer Articulated	2735	1864	2104	2236	2409	2509	2565	2661	2660
7.	Tractors	..	1892	3089	3268	3457	3657	3968	4115	4305
8.	Tillers	..	469	1118	1214	1379	1640	1788	1927	2069
9.	Trailers	..	260	416	441	498	541	559	580	556
10.	Others	2507	1735	2891	3219	3572	4077	4431	4190	3954
Total:		119720	174704	319259	361317	414310	473789	523343	581054	647742
Percentage increase over the Previous Year		..	13.01	15.26	13.27	14.57	14.36	10.46	11.03	11.48

APPENDIX 7.11

Number of Motor Vehicles having Valid Registration as on 31-3-1991

Sl. No.	District	Goods Vehicles		Buses		Four Wheelers cars and station wagons				Three Wheelers	
		Four Wheelers and above	Three Wheelers including Tempos	State carriage	Contract Carriages	Cars	station Wagons	Taxi Cars	Jeeps	Autorick shaws	Motorised cycle rick-shaws
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Thiruvananthapuram	3838	1518	239	1802	21435	107	3135	3397	7818	6
2.	Kollam	6369	194	733	488	13076	39	5159	1370	3900	9
3.	Pathanamthitta	4105	756	381	186	9246	50	2604	945	3507	3
4.	Alappuzha	2612	1052	534	432	7735	9	3164	402	4024	2
5.	Kottayam	4164	693	951	339	6673	..	2497	1964	4176	5
6.	Idukki	1982	34	361	111	2575	12	1949	1691	788	1
7.	Ernakulam	9851	3677	1590	628	20153	58	3913	2343	7311	7
8.	Thrissur	5508	743	1787	651	9357	21	5679	742	9984	18
9.	Palakkad	2868	110	883	373	5527	15	1859	996	3321	..
10.	Malappuram	3590	474	904	132	5214	6	2825	3566	5723	..
11.	Kozhikode	4100	1287	1239	298	15635	220	1811	4011	5049	1
12.	Wayanad	957	106	96	24	729	24	825	1553	801	..
13.	Kannur	3672	608	1361	274	6271	325	1958	1797	7246	1
14.	Kasaragod	1121	185	327	110	2135	3	452	1323	3659	..
15.	KSRTC (RTO Nos)	16	..	4220	..	8	2	..	33	..	..
Total:		54753	11437	15606	5848	125769	981	37830	26133	67317	53

Sl. No.	District	Two Wheelers		Tractors			Others	Total	No. of vehicles per 1km. length of public works dept. roads (surfaced roads)	No. of vehicles per 1 km. length of surfaced road (including pancha-chayat)	
		Motorised cycles	Scooters/Motor cycles	trailers articulated	Tractors	Tillers Trailer					
(1)	(2)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
1.	Thiruvananthapuram	..	53134	173	116	53	35	891	97,697	57	36
2.	Kollam	9	25658	213	75	101	80	221	57,694	35	26
3.	Pathanamthitta	..	13608	31	58	35	14	26	35,555	24	23
4.	Alappuzha	3	19155	19	202	85	55	60	39,545	40	32
5.	Kottayam	..	17430	106	277	260	44	179	39,758	20	17
6.	Idukki	9	2778	160	157	49	28	128	12,812	9	8
7.	Ernakulam	3	54185	425	337	488	81	572	1,05,622	54	35
8.	Thrissur	33	34530	386	661	379	25	317	70,831	46	25
9.	Palakkad	5	18759	387	1922	431	68	99	37,623	25	14
10.	Malappuram	..	7560	112	322	47	45	151	30,671	19	15
11.	Kozhikode	1	21237	63	105	52	48	782	55,939	45	30
12.	Wayanad	..	2721	436	26	33	14	34	8,379	13	5
13.	Kannur	..	12378	143	4	11	6	485	36,540	24	19
14.	Kasaragod	..	5361	6	43	45	13	10	14,793	16	12
15.	KSRTC (RTO Nos.)	..	4	..	..	..	..	..	4,283	..	..
Total		63	288498	2660	4305	2069	556	3954	6,47,742	32	22

APPENDIX 7.12

District-wise and Category-wise distribution of Motor Vehicles in Kerala during 1990-91

SL No.	District	Goods Vehicles	Buses	Cars & Station Wagons including Taxis & Jeeps	Three Wheelers	Two Wheelers	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Thiruvananthapuram	5356 (8.09)	2041 (9.51)	28074 (14.78)	7824 (11.61)	53134 (18.41)	1268 (9.36)	97697 (15.08)
2.	Kollam	6563 (9.92)	1221 (5.69)	19644 (10.31)	3909 (5.80)	25667 (8.89)	690 (5.10)	57694 (8.91)
3.	Pathanamthitta	4861 (7.34)	567 (2.64)	12845 (6.74)	3510 (5.21)	13608 (4.72)	164 (1.21)	35555 (5.49)
4.	Alappuzha	3664 (5.53)	966 (4.50)	11310 (5.93)	4026 (5.98)	19158 (6.64)	421 (3.11)	39545 (6.11)
5.	Kottayam	4887 (7.34)	1290 (6.01)	11134 (5.84)	4181 (6.21)	17430 (6.04)	866 (6.39)	39758 (6.14)
6.	Idukki	2016 (3.05)	472 (2.20)	6227 (3.27)	789 (1.17)	2787 (0.97)	521 (3.85)	12812 (1.98)
7.	Ernakulam	13528 (20.44)	2218 (10.34)	26467 (13.88)	7318 (10.86)	54188 (18.78)	1903 (14.05)	105622 (16.30)
8.	Thrisur	6251 (9.44)	2438 (11.36)	15799 (8.29)	10012 (14.86)	34563 (11.98)	1768 (13.06)	70831 (10.94)
9.	Palakkad	2978 (4.50)	1256 (5.86)	8397 (4.41)	3321 (4.93)	18764 (6.50)	2907 (21.46)	37623 (5.81)
10.	Malappuram	4064 (6.14)	1036 (4.83)	11611 (6.09)	5723 (8.49)	7560 (2.62)	677 (5.00)	30671 (4.73)
11.	Kozhikode	5387 (8.14)	1537 (7.17)	21677 (11.37)	5050 (7.50)	21238 (7.36)	1050 (7.75)	55939 (8.64)
12.	Wayanad	1063 (1.61)	120 (0.56)	3131 (1.64)	801 (1.19)	2721 (0.94)	543 (4.01)	8379 (1.29)
13.	Kannur	4280 (6.47)	1635 (7.62)	10351 (5.43)	7247 (10.76)	12378 (4.29)	649 (4.79)	36540 (5.64)
14.	Kasaragod	1306 (1.97)	437 (2.04)	3913 (2.05)	3659 (5.43)	5361 (1.86)	117 (0.86)	14793 (2.28)
15.	K.S.T.R.C. (RTO Nos)	16 (0.02)	4220 (19.67)	43 (0.02)	.. ..	4 (0.001)	.. ..	4283 (0.66)
Total		66190 (100)	21454 (100)	190623 (100)	67370 (100)	288561 (100)	13544 (100)	647742 (100)

APPENDIX 7.13

Number of vehicles newly in the State during the year 1990-91 (District-wise)

Sl.No.	Districts	Goods vehicles				Buses		Cars & Station Wagons			Two wheelers					Other Total			
		Four wheelers & above including Tempos	Three wheelers	Stage carriages	Contract carriages/ Omni buses	Cars	Station wagons	Taxis	Jeeps	Auto-rickshaws	Motorised cycle rickshaw	Motorised cycles	Scooter/Motor cycles	Tractor Trailer Articulated	Tractors		Trailers		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1.	Thiruvananthapuram	354	101	12	203	872	..	114	253	716	..	..	7025	2	..	..	6	24	9682
2.	Kollam	317	31	..	29	440	..	..	81	823	..	..	2482	..	..	2	3	17	4225
3.	Pathanamthitta	124	120	6	29	181	..	168	94	484	..	..	2107	27	13	8	5	5	3321
4.	Alappuzha	290	20	2	27	340	..	9	5	741	..	..	2340	..	3	12	..	..	3789
5.	Kottayam	106	35	18	15	513	..	75	76	279	..	..	2820	4	5	5	..	2	3953
6.	Idukki	167	5	39	10	112	..	44	108	64	..	..	404	7	11	3	4	8	986
7.	Ernakulam	793	146	39	86	1160	..	326	225	1050	..	..	8562	1	33	163	..	33	12617
8.	Thrisur	251	315	132	69	654	..	96	52	1724	..	..	3922	18	54	36	4	9	7336
9.	Palakkad	160	55	47	35	261	..	11	72	665	..	..	2516	22	114	58	1	6	4023
10.	Malappuram	412	217	21	10	345	..	..	180	1444	..	..	1288	18	44	12	4	1	3996
11.	Kozhikode	373	192	30	16	385	..	61	256	528	1	..	3337	8	4	2	..	6	5199
12.	Wayanad	60	19	2	3	46	..	1	78	122	..	..	251	24	3	10	1	..	620
13.	Kannur	277	46	64	3	192	25	15	65	682	..	..	1569	13	..	..	..	7	2958
14.	Kasaragod	78	6	4	10	102	..	13	39	257	..	..	778	6	2	6	..	2	1303
15.	K.S.R.T.C. RTO(No.)	..	..	318	..	..	..	..	..	..	..	..	..	..	..	..	..	..	318
Total		3,762	1,908	734	545	5,603	25	933	1,584	9,529	1	..	39,401	150	286	317	28	120	64826

APPENDIX 7.14

Kerala State Road Transport Corporation—Operational Statistics 1990-91

Sl.No.	Name of Transport Unit	No. of Buses held as on 31-3-1991	No. of Schedules as on 31-3-1991	No. of Routes as on 31-3-1991	Route Distance area (Km)	Effective Kms. operated (lakhs)	Gross KM operated (lakhs)	Passengers carried (lakhs)	Average carrying capacity per bus
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Parassala	62	52	155	6753	57.70	58.09	149.91	54.7
2.	Neyyattinkara	106	99	252	7589	89.58	89.80	331.40	57.5
3.	Poovar	56	57	50	1425	42.56	44.64	183.96	56.1
4.	Vizhinjam	63	56	119	4130	46.36	46.75	162.03	55.4
5.	Kattakada	69	63	160	4467	50.08	50.27	189.80	55.2
6.	Thiruvananthapuram Central	134	111	167	15492	137.43	137.69	233.37	56.2
7.	Pappanamcode	130	118	221	2798	67.90	68.25	439.17	53.4
8.	Thiruvananthapuram City	181	165	582	4866	90.72	91.07	673.38	53.7
9.	Vikas Bhavan	90	78	274	4144	53.89	54.63	308.22	53.5
10.	Perookkada	66	57	219	3416	35.13	35.31	244.46	53.6
11.	Nedumangad & Palode	112	109	269	9391	91.87	93.30	301.75	54.2
12.	Kilimanoor	47	43	207	6305	38.28	38.50	113.95	55.1
13.	Attingal	77	72	159	5166	65.78	66.42	191.82	60.8
14.	Kollam	106	101	151	6752	96.39	97.12	270.10	55.6
15.	Kottarakara	75	74	187	6317	66.55	67.07	245.77	55.0
16.	Punalur	51	47	142	4893	39.77	39.89	143.43	54.3
17.	Pathanamthitta	58	49	107	5988	45.29	45.72	108.82	54.5
18.	Adoor & Pandalam	42	37	125	5507	33.10	33.28	112.36	55.4
19.	Karunagappally	43	42	107	3462	36.57	36.68	154.41	54.9
20.	Kayamkulam	59	56	96	4113	50.23	50.35	158.95	55.6
21.	Haripad	28	24	40	2255	22.96	23.38	70.14	56.9
22.	Mavelikara	26	23	58	3211	22.43	22.55	50.61	56.2
23.	Alappuzha	87	78	104	3794	71.45	71.90	223.64	55.9
24.	Sherthalai	67	66	148	6273	59.65	59.98	197.35	57.3
25.	Chengannur	63	54	158	5621	44.55	44.92	154.07	54.8
26.	Thiruvalla	56	50	132	4855	41.05	41.52	166.12	56.2
27.	Changanassery	57	54	91	4461	44.42	44.61	143.09	55.6
28.	Kottayam	94	82	170	10829	79.43	77.76	291.15	61.1
29.	Ponkunnam	28	23	24	2515	25.24	25.58	38.05	57.7
30.	Palai	47	46	77	5056	41.72	41.86	129.68	56.5
31.	Eratupetta	32	30	70	4153	29.23	29.65	74.45	55.2
32.	Vaikam	30	30	34	2014	28.27	28.56	62.93	55.5
33.	Moovattupuzha	48	44	62	3186	40.81	41.23	128.09	55.4
34.	Thodupuzha & Moolamattom	33	28	61	5744	33.57	33.71	52.34	56.0
35.	Kothamangalam & Moonnar	38	33	52	4844	32.89	33.25	63.52	53.2
36.	Ernakulam	57	53	101	6209	59.14	59.29	94.14	55.5
37.	Aluva & Angamali	77	68	116	3534	57.21	57.28	218.07	53.5
38.	North Parur & Kodungalloor	45	41	58	2287	38.97	39.12	96.40	55.6
39.	Perumbavoor	45	40	65	4553	41.09	41.15	132.35	58.1
40.	Chalakkudy & Irinjalakkuda	46	39	73	4530	37.93	38.24	99.10	55.1
41.	Mala	28	25	45	1184	27.16	27.41	89.03	54.6
42.	Thrissur & Amballoor	55	50	54	7317	67.10	67.34	120.30	55.4
43.	Puthukkad	14	12	16	538	11.69	11.71	33.66	57.7
44.	Guruvayoor	46	40	37	5893	58.01	58.15	54.56	57.2
45.	Ponnani	25	18	21	3419	25.30	25.41	23.78	57.6
46.	Perinthalmanna	31	23	23	4793	26.14	26.31	32.68	56.4
47.	Palakkad, Chittoor & Vadakkancherry	99	77	69	9734	104.46	104.93	101.45	55.4
48.	Malappuram	35	31	23	3393	32.85	32.93	47.00	56.8
49.	Kozhikode	92	77	91	6409	71.32	71.57	142.44	55.6
50.	Thamarassery	26	24	68	2788	20.42	20.52	61.57	56.4
51.	Sultan Bathery	82	78	208	8470	69.71	70.10	181.61	59.1
52.	Kalpetta	35	30	154	7442	21.52	21.64	72.26	53.9
53.	Kannur	88	71	79	7346	73.05	73.49	134.00	55.2
54.	Payyannur	41	34	46	3156	33.19	33.35	72.07	57.7
55.	Kasaragod	43	33	26	3142	36.65	36.82	82.64	58.4
56.	Mananthavady	42	37	45	1682	25.77	25.85	83.18	54.8
Total		3413	3052	3894	174418	2791.69	2809.92	8534.68	55.7

APPENDIX-7.15

Kerala State Road Transport Corporation-Operational Ratio-1990-91

Sl. No.	Name of Transport Unit	Average No. of buses held daily	Average kms. run per day per bus	Percentage Vehicular utilisation	Average route length (Kms)	Average distance travelled by a passenger (kms)	Average earnings per passenger (paise)	Earnings per kms. of buses operated (paise)	Earnings per Vehicle on road per day (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(10)
1.	Parassala	60.0	306.4	86.0	43.6	15.6	190.3	494	1515
2.	Neyyattinkara	110.0	273.6	81.5	30.1	12.7	141.4	523	1431
3.	Poovar	54.8	255.5	83.3	28.5	10.2	115.9	501	1280
4.	Vizhinjam	61.9	289.2	71.0	34.7	12.6	149.2	521	1508
5.	Kattakkada	65.9	265.6	78.4	27.9	12.8	158.3	600	1593
6.	Thiruvananthapuram (Central)	127.6	384.0	76.9	92.8	26.0	354.9	603	2314
7.	Pappanamcode	128.8	164.3	87.9	12.2	8.1	87.1	563	926
8.	Thiruvananthapuram City	173.9	176.4	81.0	8.48	7.6	77.0	572	1009
9.	Vikas Bhavan	87.4	211.2	80.0	15.1	8.0	84.8	485	1023
10.	Peroorkada	61.4	188.8	83.0	15.6	6.7	74.9	521	984
11.	Nedumangad & Palode	113.6	274.4	80.7	34.9	13.3	147.1	483	1326
12.	Kilimanoor	52.1	281.5	83.0	49.0	15.8	192.6	620	1746
13.	Attingal	73.6	297.0	82.4	32.5	16.5	200.4	584	1736
14.	Kollam	105.2	312.0	80.5	41.7	18.3	231.9	650	2027
15.	Kottarakkara	77.3	279.3	84.5	33.8	14.3	170.4	629	1757
16.	Punalur	49.3	272.9	80.9	34.5	15.7	184.7	666	1818
17.	Pajhanamthitta	59.0	277.1	75.9	56.0	20.8	275.2	661	1832
18.	Adoor	41.8	272.2	79.7	44.1	15.4	190.4	646	1757
19.	Karunagapally	43.3	288.5	80.2	32.4	13.7	156.1	659	1901
20.	Kayamkulam	62.5	261.9	84.1	42.8	18.1	222.4	704	1843
21.	Haripad	27.2	300.9	76.9	56.4	18.5	221.9	676	2039
22.	Mavelikkara	25.2	338.4	72.1	55.4	22.2	291.2	657	2223
23.	Alappuzha	80.5	281.4	84.4	36.5	17.4	212.2	664	1869
24.	Sherthalai	70.4	275.6	84.2	42.4	15.1	178.4	590	1627
25.	Chengannur	62.9	250.7	77.4	36.6	14.4	175.0	605	1517
26.	Thiruvalla	56.0	259.1	77.5	36.8	12.8	152.6	618	1600
27.	Changanassery	52.1	281.5	83.0	49.0	15.8	192.6	620	1746
28.	Kottayam	89.0	277.7	88.1	63.7	13.2	174.3	639	1775
29.	Ponkunnam	24.4	327.9	86.4	104.8	31.8	435.2	656	2151
30.	Palai	48.2	277.2	85.6	65.7	17.3	223.7	695	1926
31.	Erattupetta	32.9	280.7	86.7	59.3	21.3	276.9	705	1980
32.	Vaikom	31.6	294.0	83.4	67.1	22.8	283.6	631	1856
33.	Moovattupuzha	48.2	286.5	81.0	51.4	17.1	219.3	688	1973
34.	Thodupuzha & Moolamattom	36.4	319.1	79.2	94.1	30.1	412.0	642	2050
35.	Kothamangalam	35.9	317.6	79.1	93.2	25.0	336.4	649	2063
36.	Ernakulam	57.2	387.1	81.8	61.5	33.5	464.2	738	2860
37.	Aluva & Ankamaly	78.2	265.6	75.4	30.5	12.6	145.1	533	1468
38.	North Parvur & Kodungalloor	30.0	264.3	81.9	39.4	16.3	218.4	540	2347
39.	Perumbavoor	47.6	281.5	84.0	70.0	14.9	186.4	600	1690
40.	Chalakkudy & Irrinjalakuda	43.4	314.3	76.3	62.1	19.6	245.2	641	2013
41.	Mala	28.0	336.6	79.0	26.3	13.6	176.3	578	1945
42.	Thrissur & Amballoor	56.7	375.1	86.4	185.5	26.0	350.7	629	2358
43.	Puthukkad	13.4	291.4	82.0	33.6	17.6	222.9	642	1869
44.	Guruvayur	46.5	445.6	76.7	159.3	44.5	262.9	590	2627
45.	Ponnani	24.0	389.1	74.2	162.8	48.4	698.6	657	2555
46.	Perinthalamanna	29.37	334.2	73.1	208.4	36.0	451.4	564	1886
47.	Palakkad, Chittoor & Vadakkancherry	97.4	365.0	80.5	141.1	43.4	617.2	599	2188
48.	Malappuram	34.6	312.8	83.1	147.5	31.5	389.3	557	1743
49.	Kozhikode	93.3	274.3	76.4	70.4	24.1	317.7	634	1740
50.	Thamarassery	26.8	310.3	67.3	41.0	14.9	165.0	497	1543
51.	Sultan Bathery	76.6	298.2	83.6	40.7	16.7	207.5	541	1612
52.	Kalpetta	33.4	262.3	67.3	48.3	14.4	141.8	476	1249
53.	Kannur	83.9	289.6	82.4	93.0	22.7	290.6	533	1543
54.	Payyannur	39.3	279.0	82.9	68.6	18.4	229.0	497	1543
55.	Kasaragode	42.6	282.0	83.4	120.8	18.6	239.0	539	1520
56.	Mananthavady	41.1	224.1	76.7	37.4	14.1	171.5	553	1240
Total		3347.6	282.9	80.9	44.8	15.7	196.9	617	1703

APPENDIX—7.16

Air-Traffic (Indian Airlines) from Thiruvananthapuram-Kochi 1989-90 and 1990-91

Sector	Originating Traffic				Terminating Traffic			
	1989-90		1990-91		1989-90		1990-91	
	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)	Passenger (Nos.)	Freight (Tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Cochin-Madras	21017	48.51	14482	25.09	22804	190.83	164.33	119.09
Cochin-Bangalore	28513	168.68	20893	42.81	24210	74.71	20751	46.65
Cochin-Thiruvananthapuram	6219	318.94	4791	78.84	4788	377.67	4509	52.40
Cochin-Bombay	92649	506.10	71474	561.37	103697	324.36	84353	313.07
Cochin-Delhi	10225	29.38	14431	27.91	11942	137.60	15255	119.84
Cochin-Goa	5342	5.31	7964	10.70	4169	22.47	7549	18.97
Sub-Total	163965	1076.92	134035	746.72	171610	1127.64	148850	670.92
Thiruvananthapuram-Hyderabad	596	2.16	..	..	970	1.27	..	..
Thiruvananthapuram-Goa	1693	0.83	..	..	1920	5.26	..	..
Thiruvananthapuram-Madras	22158	80.93	19332	31.11	24301	243.96	21757	244.90
Thiruvananthapuram-Bangalore	13950	10.37	1809	3.29	14200	44.78	1960	7.23
Thiruvananthapuram-Colombo	6489	20.14	5365	11.68	9108	1.08	7662	0.79
Thiruvananthapuram-Male	14369	526.52	15417	428.97	13816	7.68	15698	4.39
Thiruvananthapuram-Bombay	75531	700.09	62600	931.18	82668	1365.92	73133	1292.94
Thiruvananthapuram-Delhi	8023	14.12	8193	33.02	8109	61.26	8167	71.92
Sub-Total	142809	1355.16	112716	1439.25	155092	1731.21	128377	1622.17
Calicut-Bombay	34644	85.82	32149	69.29	39454	40.64	48671	44.87
Grand-Total	341418	2517.90	278900	2255.26	366156	2899.49	315898	2337.06

APPENDIX—7.17

No. of Passports issued by the Passport and Emigration Offices of Cochin & Calicut during 1990-91

Year and Month	Number of fresh applications received			Number of Passports issued		
	Cochin	Calicut	Total	Cochin	Calicut	Total
	(2)	(3)	(4)	(5)	(6)	(7)
<u>1990</u>						
April	13041	8485	21526	10028	12749	22777
May	14033	10779	24812	12011	12519	24530
June	13471	10828	24299	9382	10865	20247
July	14714	10757	25471	11075	10144	21219
August	12371	12136	24507	8596	8521	17117
September	5290	5398	10688	13396	8890	22286
October	7347	6778	14125	10000	8305	18305
November	10010	8278	18288	13061	7391	20452
December	10353	8645	18998	10227	7194	17421
<u>1991</u>						
January	7719	6550	14269	7411	6714	14125
February	4508	3375	7883	13080	8481	21561
March	12407	8240	20647	10567	8255	18822
Total	125264	100249	225513	128894	110028	238922

APPENDIX 7.18

Number of Ships that called at Cochin port during 1989-90 and 1990-91 and their Net Registered Tonnage

Sl. No.	Type of Vessels	No. of Ships		% variation increase (+)/ decrease (-)	Net Registered Tonnage		% variation increase (+)/ decrease (-)
		1989-90	1990-91		1989-90	1990-91	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Tankers	202	208	+2.97	3173001	3325563	+4.81
2	Colliers	..	1	+100.00	..	11675	+100.00
3	Foodgrain ships	2	1	-50.00	12018	6914	-42.47
4	Fertiliser ships	61	69	+13.11	511493	525088	+2.66
5	General Cargo Ships*	290	288	-0.69	1131150	1176652	+4.02
6	Container Ships	258	287	+11.24	909810	804284	-11.60
7	Passenger Ships	3	4	+3.33	10115	38608	+281.69
Total		816	858	+5.15	5747587	5888784	+2.46

*Including Passenger cum cargo ships

Source: Administration Report of Cochin Port Trust, 1990-91.

APPENDIX 7.19

Commodity-wise cargo handled at the Intermediate and Minor Ports of Kerala during 1990-91

(in Tonnes)

Sl.No.	Name of Port	Commodity	Imports			Exports		Grand Total	
			Costal	Foreign	Total	Coastal	Foreign	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Alappuzha	..	..	..	..	..	..	..	..
2	Kozhikode	1. Timber	..	..	..	6478	80	6558	6558
		2. Bricks	..	..	..	5618	..	5618	5618
		3. Rice	..	..	..	2528	..	2528	2528
		4. River Sand	..	..	..	1250	..	1250	1250
		5. Cement	..	..	..	1790	..	1790	1790
		6. Soda Ash Light	1880	..	1880	..	..	..	1880
		7. Iron Serap	5282	..	5282	..	..	..	5282
		8. Miscellaneous	3343	..	3343	9687	1757	11444	14787
		Total (Kozhikode)	10505	..	10505	27351	1837	29188	39693
3	Neendakara	1. Ilmenite	..	..	..	..	82090	82090	82090
		2. Silliminate	..	..	..	..	1000	1000	1000
		Total (Neendakara)	..	..	..	..	83030	83030	83030
4	Azheekkal	1. Timber	..	..	..	7380	..	7380	7380
		2. Iron Materials	2	..	2	..	..	..	2
		Total (Azheekkal)	2	..	2	7380	..	7380	7382
Grand Total			10507	..	10507	34731	84867	119598	130105

Source: Directorate of Ports

APPENDIX: 7.20

Number and Tonnage of Steamers and Sailing Vessels which called at the Intermediate and Minor Ports of Kerala during 1990-91

Sl. No.	Name of Port	Coastal Foreign	Steamers		Sailing Vessels		Total No. of Vessels	Total Tonnage
			Number	Tonnage	Number	Tonnage		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Alappuzha	Coastal	..	..	..	..	..	..
		Foreign	..	..	..	..	..	..
2.	Kozhikode	Coastal	36	11610	293	33738	329	45348
		Foreign	1	2222	3	720	4	2942
3.	Neendakara	Coastal	..	..	..	..	..	..
		Foreign	4	47497	..	..	4	47497
4.	Azheekkal	Coastal	..	..	110	10404	110	10404
		Foreign	..	..	..	..	..	..
5.	Kovalam -Vizhinjam	Coastal	1	442	..	..	1	442
		Foreign	..	..	..	..	..	..
6.	All other Ports	Coastal	..	..	..	..	..	..
		Foreign	..	..	..	..	..	..
	Total:	Coastal	37	12052	403	44142	440	56194
		Foreign	5	49719	3	720	8	50439
	Grand Total:		42	61771	406	44862	448	106633

Source: Directorate of Ports.

APPENDIX 7.21

Details of dredging operations conducted at the Intermediate and Minor Ports of Kerala—1990-91

Name of dredger	Capacity of dredger	Ports dredged	Quantity dredged		Dredging done for others		Amount valued (Rs.)
			Time in hours	Quantity dredger (M3)	Agency	Quantity dredged (M3)	
1. CSD 'Mecna Kerala'	600 M3/hr.	1. Cochin Shipyard	101.25	..	Privatedredging	60750M3	Rs. 730200@ Rs. 7200 per hour Rs. 490680 (departmental)
		2. Beypore Port	68.15	40890M3	..	..
		Total	169.40	40890 M3	..	60750 M3	
2. CSD Neendakara	200 M3/hr.	1. Ponnai Port	70.05	14010M3	The expendi- ture was order- ed to be met from Ponnani Fisher Harbour Rs. 1,12,080/- @ Rs. 1600/ perhour Rs. 359280/- de- partmental @ Rs. 1600 per hour
		2. Neendakara Cargo Harbour	224.55	49910 M3	..	..
		Total:	295.00	53920M3	..	..
3. Grab Dredger	50 M3/hr.	1. Ponnani Port	72.10	3605 M3	The expenditure was ordered to be met from Ponnani Fish- ing Harbour Rs. 25235/@ Rs. 350/per hour Rs. 20422.50 departmental @Rs. 13685 per hour.
		2. Neendakara Cargo Harbour	58.35	2917.50M3	..	..
		3. Wave Energy Project-Vizhinjam	39.10	..	..	1955 M3
		Total	169.55	6522.50M3	..	..

Source: Directorate of Ports

APPENDIX 7.22

Number of harbour crafts registered at the Intermediate and Minor Ports of Kerala During 1990-91

Sl. No.	Name of Port	Cargo boats including barges	Canoes including boats	Mechanised fishing vessels	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Alappuzha	..	..	160	..	160
2.	Kozhikode	6	2	175	1	184
3.	Neendakara	..	..	641	..	641
4.	Azheekkal	..	..	..	..	..
5.	Vadakara	..	..	..	..	..
6.	Kannur	..	..	2	..	2
7.	Kasaragod	..	115	..	..	115
8.	Kodungalloore	..	..	402	..	402
9.	Kovalam-Vizhinjam	..	..	..	..	..
10.	Ponnani	..	..	..	..	..
11.	Thalasseri	..	..	..	..	..
12.	Thiruvananthapuram	..	..	..	..	..
13.	Kollam	..	..	..	..	..
	Total	6	117	1380	1	1504

Source: Directorate of Ports.

APPENDIX 7.23

Category-wise break-up of Revenue Collected at the Intermediate and Minor Ports of Kerala 1990-91

(in Rs.)

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)	(10)
1.	Alappuzha	..	..	640	..	32496	41529	..	74665
2.	Kozhikode	24547	193631	56891	6942	296452	11660	..	591308
3.	Neendakara	35447	166060	1026477	..	250367	322418	..	1800769
4.	Azheekkal	5349	50975	..	..	52423	..	..	108747
5.	Vadakara	..	..	..	..	13044	..	..	13044
6.	Kannur	..	..	..	..	7995	630	..	8625
7.	Kasaragode	..	..	..	..	9882	8215	..	18097
8.	Kodungalloore	..	..	..	..	..	85988	..	85988
9.	Kovalam-Vizhinjam	1882	..	..	..	769	..	..	2651
10.	Ponnani	..	..	..	..	6509	65	..	6574
11.	Thalasseri	..	..	..	..	12860	..	..	12860
12.	Thiruvananthapuram	..	..	..	..	13466	..	..	13466
13.	Kollam (Including Neendakara port)	..	..	..	..	..	..	..	..
14.	Receipts for Private Dredging	..	..	..	..	..	..	1691561	1691561
	Total	68410	410666	1084008	6942	696263	470505	1691561	4428355

Source: Directorate of Ports

APPENDIX 7.24

Category wise offices in Postal and other Postal Services

Category of Offices	As on 1st April	
	1990	1991
(1)	(2)	(3)
(a) Postal Services		
1. Head Post Offices	50	50
2. Sub Post Offices		
(i) Departmental	1416	1418
(ii) Extra Departmental	555	555
3. Branch Offices	2840	2882
Total (a)	4861	4905
(b) Speed Post Centres	4	6

	(1)	(2)	(3)
(c) Other Postal Services			
1. Railway Mail Service Offices			
(i) Head Record Office		3	3
(ii) Sorting Record Office		23	23
(iii) Sorting Mail Office		29	29
(iv) Transit Mail Office		9	9
(v) R.M.S. Sections		18	18
(vi) Press Sorting Office		2	2
(vii) Parcel Sorting Office		3	3
Total (b)		87	87
2. Mil Motor Service Division Unit		1	1
3. Central Stamp Depot		1	1
Total (c)		89	89

Source: C.P.M.G., Kerala Circle, Thiruvananthapuram

APPENDIX 7.25

Growth of Postal System in Kerala During the Last Ten Years

Category	As on 1st April									
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Postal Services										
1. Head Post Offices	51	51	51	51	50	50	50	50	50	50
2. Sub Post Offices (Departmental & Extra Departmental)	2100	2126	2187	2026	2027	1971	1971	1971	1971	1971
3. Branch Post Office	2486	2501	2511	2674	2671	2727	2761	2761	2840	2883
Total	4647	4678	4749	4751	4748	4748	4782	4782	4861	4905

Source: Chief Post Master General, Kerala Circle, Thiruvananthapuram

APPENDIX 7.26

Names of Speed Post Centres

Inland		International	
Sl. No.	Name	Sl. No.	Name
(1)	(2)	(3)	(4)
1.	Agarthala	1.	Argenteena
2.	Agra	2.	Australia
3.	Ahmedabad	3.	Austria
4.	Aluva	4.	Behrain
5.	Allahabad	5.	Belgium
6.	Bangalore	6.	Egypt
7.	Bhopal	7.	France
8.	Bhubaneswar	8.	Greece
9.	Bombay	9.	Germany
10.	Calcutta	10.	Hongkong
11.	Kozhikode	11.	Iraq
12.	Chandigarh	12.	Ireland
13.	Kcchi	13.	Indonessia
14.	Coimbatore	14.	Japan
15.	Cuttack	15.	Luxumburg
16.	Dhanbad	16.	Maccau
17.	Delhi	17.	Mali
18.	Gauhati	18.	Netherlands
19.	Goa	19.	Nigeria
20.	Gorakhpur	20.	Norway
21.	Gwalior	21.	Oman
22.	Faridabad	22.	Pakistan
23.	Hyderabad	23.	Portugal
24.	Imphal	24.	Peoples Republic of China
25.	Indore	25.	Quatar
26.	Jaipur	26.	Republic of Korea
27.	Jammu	27.	Ruwanda
28.	Jamshedpur	28.	Senigal
29.	Julundher	29.	Singapore
30.	Kanchcepuram	30.	Spain
31.	Kanpur	31.	Sreelanka
32.	Ludhiana	32.	Sweedeen
33.	Lucknow	33.	Switzerland
34.	Madras	34.	Thailand
35.	Madurai	35.	Tunessia
36.	Mangalore	36.	Turkey
37.	Meerut	37.	U.A.E.
38.	Morabad	38.	U.K.
39.	Mysore	39.	U.S.A.
40.	Nagpur	40.	U.S.S.R.
41.	Patna	41.	Saudi Arabia
42.	Pondichery	42.	Canada
43.	Pune	43.	Cyprus
44.	Kollam	44.	Ethiopia
45.	Raipur	45.	Malawi
46.	Ranchi	46.	Newzeland
47.	Salem	47.	Sudan.
48.	Shillong		
49.	Simla		
50.	Silchar		
51.	Srinagar		
52.	Surat		
53.	Thirupathi		
54.	Trichi		
55.	Tiruppur		
56.	Thrissur		
57.	Thiruvananthapuram		
58.	Vadodara		
59.	Varanasi		
60.	Vijayavada		
61.	Vishakhapatnam.		

Source: Chief Postmaster General, Kerala Circle, Thiruvananthapuram.

APPENDIX 7.27

District-wise details of Area and Population served by One Post Office during 1990-91

Sl.No.	Name of District/Island	Number of Post Offices	Area* (Sq. Kms)	Area served by each Post Office (Sq. Kms)	Population* (in 1000s)	Population served by each Post Office
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Thiruvananthapuram	411	2192	5.333	2939	7151
2.	Kollam	324	2491	7.688	2398	7401
3.	Pathanamthitta	298	2462	11.101	1187	4987
4.	Alappuzha	359	1414	3.939	1991	5546
5.	Kottayam	419	2203	5.258	1820	4344
6.	Idukki	291	5019	17.247	1077	3701
7.	Ernakulam	376	2407	6.402	2798	7441
8.	Thrisur	486	3032	6.239	2734	5626
9.	Palakkad	440	4480	10.182	2376	5400
10.	Malappuram	408	3550	8.701	3093	7581
11.	Kozhikode	414	2344	5.662	2613	6312
12.	Wayanad	140	2131	15.221	671	4793
13.	Kannoor	409	2966	7.252	2245	5489
14.	Kasaragod	176	1992	11.318	1071	6085
15.	Lakshadweep	10	30	3.000	52	5200
16.	Mahe	4	9	2.250	35	8750
	Kerala — Including Lakshadweep & Mahe	4905	38902	7.931	29100	5933
	Kerala — excluding Lakshadweep & Mahe	4891	38863	7.946	29013	5932

* Figures as per Census of India 1991, Provisional Population totals of Kerala Paper I of 1991—Series-12.

Source : Chief Post Master General, Kerala Circle, Thiruvananthapuram.

APPENDIX 7.28

Division-wise details of Post Offices in Different Categories as on 1-3-1991

Sl. No.	Name of Division	Head Offices	Sub Offices		Branch Offices	Mobile Post Offices	Total
			Departmental	Extra Departmental			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Thiruvananthapuram (South)	2	65	16	132	..	215
2.	Thiruvananthapuram (North)	2	76	8	110	..	196
3.	Kollam	3	83	33	113	..	232
4.	Pathanamthitta	3	71	54	164	..	292
5.	Thiruvalla	2	62	32	59	..	155
6.	Mavelikkara	2	49	24	45	..	120
7.	Alappuzha	2	46	31	45	..	124
8.	Kottayam	3	79	44	129	..	255
9.	Changanassery	2	48	12	102	..	164
10.	Idukki	2	52	13	224	..	291
11.	Eranakulam	2	68	5	58	..	133
12.	Aluva	3	67	34	139	..	243
13.	Irinjalakkuda	2	62	23	103	..	190
14.	Thrisur	3	103	33	157	..	296
15.	Ottappalam	1	52	23	138	..	214
16.	Palakkad	3	86	21	116	..	226
17.	Thirur	2	57	23	95	..	171
18.	Manjeri	2	44	21	170	..	237
19.	Kozhikode	2	74	14	202	..	292
20.	Vadakara	2	41	37	135	..	215
21.	Thalassery	1	43	8	147	..	199
22.	Kannur	2	61	25	130	..	218
23.	Kasaragod	2	29	17	169	..	217
24.	Lekshadweep	..	6	3	1	..	10
Total		50	1418	555	2882	..	4905

Source : Chief Post Master General, Kerala Circle, Thiruvananthapuram.

APPENDIX 7.29

Statistics relating to Telecommunication system in Kerala during 1990 and 1991 (As on 31st March)

Sl. No.	Secondary switching Area (SSA)	No. of Exchanges		Total equipped-capacity		Total Working connections		Total applications in the wait list		Public Call offices	
		1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Thiruvananthapuram	33	35	28038	31313	26602	30009	17578	20275	436	579
2	Kollam	50	52	15370	18107	14710	16632	8101	9625	286	344
3	Pathanamthitta	36	36	8470	9687	8229	9197	7549	9625	189	232
4	Alappuzha	39	38	13479	15080	13057	14317	6976	8831	254	288
5	Kottayam	58	58	22310	24948	21397	23503	15785	18032	401	477
6	Eranakulam	121	125	53927	65236	50684	59020	24881	30277	649	987
7	Thrisur	46	46	24871	26792	23761	25833	15001	18707	379	479
8	Palakkad	61	62	13570	15197	12894	14016	4458	5882	330	376
9	Kozhikode	101	104	36691	42127	32986	37819	24438	29407	495	703
10	Kannoor	91	93	29464	32220	27122	29915	20083	24172	376	493
Total		636	649 (2.04)*	246190	281607 (14.39)*	231442	260261 (12.45)*	144850	174833 (20.70)*	3749	4958 (30.68)*

*Figures within brackets indicate the percentage of increase over the previous year.

Source: Chief General Manager Kerala Telecommunications, Thiruvananthapuram.

Income and Expenditure of the Kerala Tourism Development Corporation and accommodation details in the Hotels of KTDC—1990-91

Sl. No.	Name of hotel units	No. of beds available	Total Number of visitors			Annual income (Rs. in lakhs)	Annual Expenditure Rs. in lakh		
			Domestic	Foreign	Occupancy ratio		Adminis- tration	Operating	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A.1	Mascot Hotel	84	3478	1414	24%	68.56	36.44	26.39	62.83
2	Hotel Samudra	100	6482	4767	32%	35.78	16.99	8.46	25.45
3	Hotel Chaithram	176	22597	687	64%	103.22	34.57	41.71	76.28
4	Bolgatty palace Hotel	24	98	150	64%	25.16	14.50	6.87	21.37
5	Aranya Nivas & Lake Palace	72	591	363	50%	63.45	25.00	13.19	38.19
6	Periyar House	75	11420	2594	63%	19.32	11.55	4.31	15.86
7	Sabala, Kuttikkanam	4	1074	4	..	3.18	1.83	0.80	2.63
8	Kumarkom Tourist complex	8	560	215	..	6.26	3.33	2.61	5.94
9	Guruvayur Tourist Bungalow/Nandanam	105	14675	1	43%	10.78	6.99	4.44	11.43
10	Mangalya, Guruvayoor	38	420	..	..	26.36	9.55	15.05	24.60
11	Garden House	34	4871	29	39%	12.91	4.66	5.21	9.87
12	Yatri Nivas, Trichur	68	7100	88	55%	7.07	3.23	3.06	6.29
13	Yatri Nivas Kannur	62	..	..	..	4.46	1.12	2.84	3.96
14	Malabar Mansion, Kozhikode	..	..	..	..	8.06	2.52	5.87	8.39
15	Sabala, Museum	..	..	..	..	5.29	1.00	3.79	4.79
16	Sabala, Veli	..	..	..	..	4.38	0.85	2.75	3.60
17	Sabala, Ponnudi	..	..	..	..	1.71	0.41	1.18	1.59
18	Aram, Kottarakkara	4	132	..	..	0.09	0.32	0.06	0.38
19	Aram, Alleppey	4	274	9	..	0.15	0.37	..	0.37
20	Aram, Kannur	4	172	..	..	0.15	0.47	0.06	0.53
21	Aram, Palghat	4	1421	..	..	5.21	1.63	3.22	4.85
	Sub Total	866	75365	10321	..	411.55	177.32	151.87	329.19
B. 22	Transport Division	..	..	..	..	25.77	14.00	9.64	23.64
23	Tourist Reception Centre, Cochin	..	..	..	..	15.01	6.79	4.67	11.46
24	Boat Club Veli	..	..	..	..	6.76	32.41	1.07	33.48
	Total	866	75365	10321	..	459.09	230.52	167.25	397.77

APPENDIX 8.1.

Statement of Export through the Port of Cochin during the Period 1989-90 & 1990-91

(Value in Rs.)

Commodity	Unit	1989-90		1990-91	
		Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)
Coir Fibre	Qtls	1183	727764	598	451954
Coir Yarn	Qtls	112337	117389884	104068	128293593
Coir Ropes	Qtls	575	715077	950	1291769
Coir Mats and Mattings	Qtls	134965	262343646	140122	324120039
Coir Draids and Fenders	Qtls	492	815287	296	709719
Coir Other Products	Qtls	126	140542	59	347006
Coir Pith	Qtls	175	21954	..	189
Coconut Husk Door Mats etc	Qtls	..	..	375	993522
Aloe Fibre	Kgs	49	240	..	..
Aloe Yarn	Kgs	26850	810421	14000	475781
Aloe Mats & Mattings	Kgs	6626	187771	14776	442782
Jute yarn	Kgs	730	63939	1449	89722
Jute Floor Covering/Dhurries	Kgs	6	504	1154	112164
Jute bags/sacks bander	Kgs	403	70617	1200	25659
Jute Mats & Mattings	Kgs	14655	703441	13367	848159
Quilted Mattress	Kgs	..	..	7	1579
Coir/Rubber/Foam Matterres	Kgs	26300	1813845	14198	915856
Foam/Spunch Shoulder Pads	Kgs	50	15931	..	..
Sisal Floor Coverings	Kgs	22670	1255871	..	..
Wine Baskets	Kgs	87649	2039601	42448	640139
Grass Mats & Mattings	Kgs	10463	179643	3386	79509
Black pepper	Qtls	319222	1451149975	268906	990005809
Green pepper	Qtls	7398	29334751	11560	36599271
Sterlised Pepper Corns	Qtls	..	..	30	159782
Pepper Pindeads/Spent etc.	Qtls	3646	3666719	5277	4594441
Ginger	Qtls	41014	91485506	30327	92961826
Ginger Spent etc.	Qtls	2278	1134486	2252	1187230
Turmeric	Qtls	25684	31461500	25497	36358954
Turmeric Spent etc.	Qtls	588	134011	1256	729438
Chillies	Qtls	6502	16931330	3231	5605636
Chillies Seed spent etc	Qtls	..	..	200	83630
Tamarind	Qtls	721	1080799	84	218820
Ottupuly/Kudampuly	Qtls	15	48150	31	97398
Kappurkatchili	Qtls	70	165447	..	..
Kolinjan/Galingal	Qtls	1084	794405	21000	167539
Cashew Kernels (Plain)	Qtls	313104	3316961651	436337	3956300370

(1)	(2)	(3)	(4)	(5)	(6)
Cashew Kernels (Roasted&Salted)	Qtls	311	4592447	157	2230829
Coffee (Beans)	Qtls	537847	1284328824	328124	782620256
Coffee (Spray/Power)	Kgs	..	..	240	22901
Coffee Husk etc	Qtls	21	5004	..	..
Tea	Qtls	113977	392343480	86516	343974218
Tea Aroma	Kgs	10	77930	7	62166
Cardamoms	Qtls	334	9139081	673	21692960
Cocoa Beans	Qtls	7779	14703967	..	..
Cocoa Butter	Qtls	770	3331757	681	1911547
Cocoa Power	Qtls	1000	1625500	..	..
Frozen Shrimps	Qtls	271239	1704715946	296995	2347591227
Frozen Lobster	Qtls	7025	114258428	5547	70512986
Frozen Squid & Cuttle Fish	Qtls	136866	421649784	164665	585287205
Frozen other sea foods	Qtls	25835	53286157	51258	147481088
Frozen Buffalo & Mutton Meat	Qtls	21216	28379674	20127	27413406
Canned Shrimps	Kgs	21672	1811899	13855	1123516
Canned Other Sea Foods	Kgs	..	..	26	900
Dried Shrimps	Kgs	27954	10400695	3033	779051
Dried Shrimp Powder	Kgs	5	1938	75	10799
Dried Sharkfins	Kgs	4108	1273530	2571	650934
Dried Fish Maws	Kgs	..	..	947	38889
Dried Bombay Duck	Kgs	10,000	134806	..	..
Dried Squid Splints (Roasted)	Kgs	..	..	4032	673103
Dried Other Sea Foods	Kgs	189562	4652778	167436	4352464
Rice	Qtls	11130	8319625	124821	841324783
Rice Flaks	Qtls	20	30567	6	25654
Rice Husk	Qtls	380	87524	..	..
Rice Husk Ash	Qtls	20	26065	45	127432
Food stuffs	Qtls	2300	5798971	1347	3296681
Fruits & Products	Qtls	6113	5931387	519	648846
Pickles & Curry Powders	Qtls	8512	18598312	6298	14714049
Pappadams	Qtls	807	1675470	649	1191759
Curry Leaves	Kgs	300	20926	..	..
Bottles	Kgs	..	..	1021486	5393621
Tooth Paste & Power etc	Kgs	..	..	8926	946047
Drinking Water (Minerals)	Kgs	4800	633	200	14882
Decorative Bangles	Kgs	..	..	106	17932
Eggs	Kgs	2835	47960	263621	4490731
Vegetables	Kgs	47700	52894	..	..
Onions	Qtls	2000	333000	..	..
Sugar	Qtls	..	..	1000	800000
Jaggery	Qtls	..	..	410	477637

(1)	(2)	(3)	(4)	(5)	(6)
Salt	Qtls	..	..	10	2500
Almond Syrup	Kgs	26909	746308	1000	34480
Resins	Kgs	2000	40000	..	..
Annatto Seeds	Kgs	4950	77561	5413	105869
Celery seeds	Kgs	24900	298157	..	..
Corriander Seeds	Kgs	28584	304412	80518	785060
Cummin Sedes	Kgs	18150	294361	5000	204194
Cover Crop Seeds	Kgs	128265	2529261	251795	5415172
Dill Seeds (Gingelly)	Kgs	2250	28260	5000	56024
Fennel Seeds	Kgs	12500	261450	..	..
Fenugreek Seeds	Kgs	8000	103000	3350	56519
Green Grams	Kgs	..	..	166800	1550000
Kasoori Mothi	Kgs	..	..	210	12678
Neem Seeds	Kgs	..	..	20160	1135961
Lobia	Kgs	..	..	2500	30000
Ragi	Kgs	500	4300	520	26152
Sabudan (Scgo)	Kgs	7550	71018	..	..
Atta	Kgs	..	..	48800	224871
Peas Dal	Kgs	..	..	4700	60000
Thoor dal	Kgs	..	..	6700	120000
Milk Powder	Kgs	..	..	5028	318200
Taipoca	Kg	..	..	45	40569
Cotton piece Goods	Sq. mt.	13325520	233680974	9226187	212988871
Cotton Poleyster Yarn/Thread	Kgs	4019852	315814993	3783406	33238711
Cotton Made Ups	Kgs	8321347	938005819	10479960	1432229750
Cotton Dhurries/Floor Covering	Kgs	501751	27752890	444200	29701703
Cotton Napkins	Kgs	58971	474562	25528	3816028
Cotton shopping Bangs (Printed)	Kgs	..	..	22805	2765681
C H L Grillied Bags	Kgs	..	..	543	33000
Lables Fabrics/Poleyster	Kgs	..	..	120	39566
Gunny bags (Poly lined)	Kgs	..	..	2250	9564
Rexine Stripe	Kgs	..	..	92	11740
Cotton Embroidered Rugs	Kgs	75	2471	6991	843017
Cotton Laces	Kgs	27	228162	14	155405
Cotton Bandages	Kgs	528	43000	6723	5622330
Cotton Rug Dolls	Kgs	267	164092	..	..
Cotton Handwoven Crocht	Kgs	602	142446	..	..
Embroidery long stich knits	Kgs	..	..	183	46488
Absorbent/Surgical Cottonedit	Kgs	39260	1329699	41250	1166679
Acrylic yarn on cones	Kgs	..	..	100	3158
Raw Cotton	Qtls	99	1124240	923	8070825
Cotton Waste	Qtls	5025	8510469	902	2152670

(1)	(2)	(3)	(4)	(5)	(6)
Cotton Comber	Qtls	380	657715	..	..
Cotton Mercerised Combed Gassed	Qtls	..	..	70	1015300
Silk Fabrics	Kgs	5318	2182574	391	468402
Silk/Polyester/Spun Sarees	Kgs	1838	555319	289	52123
Polyester/Spun/Dhoties/Lungies	Kgs	38283	6884294	19117	3716905
Carded Ring Spun	Kgs	83048	3589078	..	..
Satin Fabrics	Kgs	..	..	289	52123
Rayon Fabrics	Kgs	1492	140490	706	212370
Rayon Yarn/Thread	Kgs	..	..	14669	2333993
Nylon Fabrics	Kgs	3282	258700	6580	1215599
Nylon Fishing Nets	Kgs	46468	4601100	52271	5492824
Khadi Yarn	Kgs	100	20400	..	..
Fibre Made Ups	Kgs	..	..	9135	454182
Rubber (Raw)	Kgs	6250	951261	100	33769
Rubber Moulding	Kgs	..	..	4357	54000
Rubber Mats	Kgs	20393	441263	44849	1073803
Rubber Envelops	Kgs	700	39656	129	14724
Rubber Battery Containers	Kgs	38853	378285	..	..
Rubber Mound	Kgs	1943	139933	..	..
Rubber Glouces (Latex)	Kgs	1501	87378	82902	5186219
Rubber Clamps	Kgs	..	..	3161	991181
Rubber Gaskets	Kgs	..	..	7543	989312
Rubber Diaphragms	Kgs	..	..	438	45388
Rubberised Canvas Leg Strap	Kgs	..	..	390	90925
Rubberised Block Pickers	Kgs	24	9226	..	..
Rubberised Inserted & Bumpers	Kgs	..	..	1105	234689
Tyre Tubes & Flaps	Qtls	46701	139218144	48066	170292446
Tyre Retrading Raw Materials	Qtls	2467	2750937	3490	7592065
Rubber Strap Mound (PVC)	Kgs	168	20470	..	..
Plastic & Allied Products	Kgs	8645	363294	1460	57205
Polypropylene Bags/Sacks	Kgs	51095	1233985	30088	1100290
PVC Soil & Waste Pipe	Kgs	..	..	7020	75749
Feeding Bittles with Silicon	Kgs	..	..	539	723441
Nipples Plastic Pails	Kgs	..	..	1007	351671
Human Hair	Kgs	2000	906978	481	215193
Buffalo Hair	Qtls	226	143102	..	..
Goat Hair	Qtls	7506	4981650	1959	1138093
Woollen Druggets	Kgs	1509	236071	74	41789
Woollen Shawls/Mufflers	Kgs	699	82222	..	..
Wool Green Clean Cloth	Kgs	270	40950	..	..
CHI. Wool Flannel	Kgs	..	..	200	12786

(1)	(2)	(3)	(4)	(5)	(6)
Cotton/Wool, Grewwells	Kgs.	..	..	200	12786
Embroided (HL)	Kgs.	..	..	2504	220464
Polyethylene Crannels	Kgs.	10	400	..	..
Hides & Skins	Kgs.	17665	3028193	11578	1904868
Leather Foot Wears	Kgs.	450	33567	119	22500
Leather Shopping Bags	Kgs.	..	..	44	11760
Other Leather Products	Kgs.	1089	313699	792	188008
Hawai Chappels (Rubberised)	Kgs.	..	..	3381	88251
Hand Embroiderd Ladies Shoes	Kgs.	..	..	568	133878
Oleroeisn of Goods	Kgs.	451957	151300389	610986	241196665
Cardmaon Oil	Kgs.	..	..	127	380812
Calamus Oil	Kgs.	..	..	209	119973
Celery Seed Oil	Kgs.	..	..	6105	5339604
Capsicum Oil	Kgs.	..	..	470	5998
Cummin Seed Oil	Kgs.	..	..	50	68493
Chaulmoogra Oil	Kgs.	440	24095	..	..
Clove Oil	Kgs.	6597	681480	2460	1132660
Davana Oil	Kgs.	..	..	64	283643
Essential Oil	Kgs.	..	..	9	46210
Eucalyptus Oil	Kgs.	64480	5327235	36682	11367593
Fish Oil	Kgs.	36360	463708	56260	506156
Berry Berry Oil	Kgs.	25	32697	..	..
Centronella Oil	Kgs.	..	..	200	12128
Galingal Oil	Kgs.	..	..	7	19304
Hair Oil	Kgs.	..	..	1220	160426
L.G.Oil	Kgs.	133151	24279314	12670	2893284
Mace Oil	Kgs.	..	..	20	22334
Nutmnet Oil	Kgs.	..	..	1448	532810
Ralmrosa Oil	Kgs.	1620	543318	690	218860
Sandalwood Oil	Kgs.	14133	44938836	14645	46802958
Vettrivert Oil	Kgs.	200	134451	..	..
Other Oils	Kgs.	31146	19477501	21603	11958686
Aromatic Chemicals	Kgs.	1800	113587	610	24033
Perfumery Compound	Kgs.	11982	8562758	43072	4579485
Phenyl (Ethyl) Alcohol Supreme	Kgs.	..	..	4400	398914
Pepper Mint	Kgs.	5034	1141269	..	..
Asafoetida	Kgs.	176	12119	..	..
Nimossa Cncontrate	Kgs.	2	3673	..	..
Spices Concentrate (Oil)	Kgs.	3	6096	580	177817
Olibanum Rasinbed	Kgs.	738	200156	..	..

(1)	(2)	(3)	(4)	(5)	(6)
Dry Flowers (Cut Flowers)	Kgs.	33112	1137552	55840	1680139
Agar Bathies	Kgs.	13607	524291	4017	1872137
Fire Works	Kgs.	12484	1083701	..	..
Hydrochloride	Kgs	100	70796	..	..
Ammonium perchloride	Kgs	3000	298384	..	..
Liquid Chloride	Kgs	..	..	59100	97454
Potassium Chlorate	Kgs	..	..	152700	2003306
Sodium brozate	Kgs	..	..	200	13948
Sodium Sulphate	Kgs	..	..	36000	150787
Sodium Chloride Sugar Coated	Kgs	..	..	1724	136716
Honyl tablets (Acetic acid)	Kgs	..	..	50	10900
Castic soda flaks	MT	..	..	530	4570526
Brucine Sulphate	Kgs.	1420	1813307	..	..
Chloropropamide	Kgs.	11750	2026764	..	..
Tobultamide	Kgs	5500	753141	3500	121795
Struchimine Alkaloids	Kgs	852	416710	..	..
Samarium Concentrate	Kgs	3050	5302021	..	..
Cerrium Hydrate	Kgs	20000	650686	10000	407793
Cerium Oxide	Kgs	25	209	..	..
Arrowroot Powder	Kgs	33112	129359	..	..
Annotta (bixim) Powder	Kgs	243	28563	..	..
Ambratta Powder/Extract	Kgs	..	..	900	313824
Cumminseed/Extract	Kgs	..	..	150	163760
Capsicum/Extract	Kgs	680	66648	..	..
Centrnelol/extract	Kgs	650	98139	..	..
Myravalam	Kgs	129100	1995494	54000	883741
Mace/Extract	Kgs	..	..	2000	21500
Nutmeg/Extract	Kgs	..	..	3000	26799
Sandalwood	Kgs	..	..	550	168439
Red Sandal	Kgs	5920	1455304	16203	1168538
Spices/Extract	Kgs	..	..	8871	388355
Tamarind powder/Extract	Kgs	..	..	2	1414
Insecticides	M.T.	98	10815517	105	12877351
Abrasive products	"	427	3738609	141	1964962
Silicom Carbide	"	..	..	200	2025000
Electro Cast Refractors	"	8	338190	11	591668
Batteries	"	407	12046808	139	17965155
Fertilizer	"	..	..	186	1206311
Compound Gluc	"	xx	4273	..	..
Dicalcium phosphate	"	4202	16386163	5726	24725585

(1)	(2)	(3)	(4)	(5)	(6)
Osscin	"	3544	72424515	3158	72796527
Garnet Sand	"	..	..	1	432
Monozite	"	900	5542596	400	4596112
Rare Earth Products	"	569	15582635	2095	40211184
Mineral Sand/Ore	"	800	8204393	6	600
China clay	"	127	431575	35	80847
Granite	"	1	17274	..	..
Dune Sand	"	2	450	..	..
Titanium Dioxide	"	72	3503205	..	..
Ilmanite/Silminits Sand	"	145	431677	..	..
Welding Electrodes	"	10	110896	..	..
Silcorn diffused Chips	Nos	100000	47731	..	..
Polished Marbles	Kgs	184	2335	..	..
Standard Aluminium	"	..	54000	..	..
Aluminium Products	M.T.	43	2109208	38	1811120
Aluminium Containers covered by Wooden Boxes	Kgs.	..	..	54	306672
Gold jewellery	Grms.	..	..	19365	5011975
Cashew Shell Liquid	M. T.	1888	14929680	2896	18809444
Petroleum products (Naphtha)	"	34059	72056795	..	..
Steel Wire Ropes	"	1084	11880165	583	9673528
Steel Castings	"	36	2639528	106	4252207
Steel Forgings (Machined)	"	..	..	5	206297
Steel Leaf Spring Assembly etc.	"	10	326976	126	1610867
Steel Core (Galvanised)	"	..	..	113	224600
Steel Drums (Empty)	"	142	1774798	21	302981
Carbon Steel Flanges	"	279	3549801	..	..
Copper Cable Conductors	"	460	29247168	..	..
Transportation tank with Sludge	"	105	524729	..	..
Marine Freight Container	"	1312	19810623	5376	61710901
Metal Manufacturing	Qtls.	7819	22050938	4142	12982517
Bimetal Products	"	85	1023182	..	..
Machinery & Parts	"	10881	148814244	8081	107782691
Wall Clock & Parts	Kgs.	11964	858424	6363	813955
Car Washer Gun Assembly etc.	"	..	..	24169	4250284
Sewing Needles/Pins etc.	"	7405	2123026	267	96812
Wet Grinder	"	..	..	275	3815
Grinding Mills	"	..	..	31200	347300
Industrial Machine for Cashew Processing	"	7618	603107	45400	1609592
Dried Squid Processing unit	"	..	..	3050	1463830
Mechanical Lifts with Spares	"	..	..	336315	13719653

(1)	(2)	(3)	(4)	(5)	(6)
Platform Weighing Scale	Kgs.	..	..	125	3000
Weaving Accessories etc.	"	8673	1387965	6035	1758778
Freezer Cabinet with plates etc.	"	6210	551980	5915	527251
M. S. window Frames etc.	"	..	..	276	35880
Pipe fittings Made out of Steel Tubes	"	..	..	71629	1866298
Water meter	"	..	..	4	400
Tyre Retreading Tools/Material	"	..	..	7569	538430
Rotary Screw Compressors	"	..	..	1200	186065
Marine Safety equipments	"	..	..	745	120288
Stainless steel socket/thread	"	695	134059	1727	380218
Stainless steel bolt etc.	"	..	..	202	82252
Drayer screen (H. N. P. Products)	"	..	..	301	266161
Sludge (H. N. P. products)	"	..	..	140	345
Dickle slides (H.N.P. product)	"	40	66125	..	..
Plastic injection moulding machine	"	78000	6885000	..	..
Laminer airflow bench instalation unit	"	..	..	675	98500
Operative tables and accessories	"	..	..	200	33183
Grease Guns (without mouth pieces)	"	..	..	450	243214
Oil collection pan with Sieve	"	..	..	814	57271
Vulcanising machine with fittings/tool	"	..	..	500	55200
Auto calibrator	"	..	..	2804	8948718
Elements	"	..	..	577	790001
Eye cutting knives	"	89	8077	..	..
Piston with rings	"	52303	7703181	..	..
Brake linings	"	4645	185601	..	..
Jewellery Mfg. machine	Kgs.	1000	68458	..	..
Coffee seed roaster	"	250	29185	..	..
Facsimile equipments	"	10	64994	..	..
Table instrumental X-ray equipments	"	100	258634	..	..
Sanitary equipments	"	42332	2156552	..	..
Analysr of Air pre-Heater	"	12	24000	..	..
Radiator cors	"	270	255843	..	..
Industrial valves	"	11247	365000	..	..
Wathour meter	"	2	48573	..	..
Laboratory equipments	"	2723	928677	..	..
Steel valve discus (Airless)	"	2120	169777	..	..
Top press felt (machine clothing)	"	239	239034	..	..
Metal gates (Front Rear etc.)	"	800	65188	..	..
Steel articles of IOEAS	"	57	1775	..	..
Precision tools/automotive	"	160	435853	151	78400

(1)	(2)	(3)	(4)	(5)	(6)
Forged iron nails	"	3000	90000	..	..
Motor cycle (complete set)	"	779	105178	..	..
Two wheeler Tipped Trailer	"	21210	663220	..	..
Motor Cycle Pump	"	1469	464509	..	..
Motor Vehicle	Nos.	2	148000	20	2569888
Gargan Yang Lacer (ophthalmic)	"	1	468569	..	..
Corrosion Measurements Systems with parts	"	..	..	1	425000
Sugar Cane Crushing Machine	"	..	..	1	5500
Metal Artware	Kgs.	1805	244358	2587	316916
Stone & Metal Tools	"	6	16500	..	..
Stone Toilet Drums	"	535	41500	..	..
Spring Vaccum Unit Rubber Tape	Kgs.	..	..	12	1926
Socket 14 of Grabs	"	..	..	8	50369
Solar Photo Voltaic module	"	..	..	4	2174
Transmission Components	"	..	..	41641	2451312
Electronic Equipmental parts	"	45150	4774499	39173	12239550
Electronic Push button Telephone	"	..	..	96	78603
Colour Television Receivers	Kgs.	1050	182298	..	..
Telescopic Antenna	Kgs.	922	209961	8645	2390801
Spare parts for Cora Radio	Kgs.	..	..	374	101245
Marcóni Stapax Systems	Kgs.	..	..	200	516296
Helicopter parts etc.	Kgs.	4	850132	..	..
Wood Veneers	Kgs.	700879	49416382	284344	32072778
Sandalwood	Kgs.	16100	1775057	14677	2580422
Roséwood Products	M.T.	501	14388579	431	18149856
Other Wood products	M.T.	33	1134298	29	1280574
Wooden Musical Instrumental parts	Kgs.	623748	36070514	553856	38793341
Handicrafts & Curios	Kgs.	188639	12925040	405154	16181502
Hand Carved Book Marks	Kgs.	184	925000	..	..
Wooden Mouldings	Kgs.	24768	363888	50410	2319451
Wooden Furniture & Building Materials	Kgs.	9618	658986	30471	858996
Wooden Cane walking sticks	Kgs.	4509	409828	..	..
Wooden and cotton Dolls	Kgs.	..	..	88	94317
Coir/Cora Grass Handicrafts	Kgs.	..	..	946	23035
Decorative Items etc.	Kgs.	..	..	704	114000
Hand made cane Articles	Kgs.	..	..	1912	172821
Ice Cream Cup of Coconut shell	Kgs.	..	..	3895	80166
Bamboo woven Lamp Shades	Kgs.	156	45900	..	..
Hookas	Kgs.	2326	332916	10111	1041929
Rubber Wood Brush Blocks	Kgs.	..	..	122	731
Palmleaf Baskets	Kgs.	..	..	950	11080

(1)	(2)	(3)	(4)	(5)	(6)
Gift Parcel	Kgs	..	..	1865	74575
Household Utensils	Kgs	5100	24822	4475	129261
Kitchen knife with Handles	Kgs	329	23265	..	..
Handmade Chapathi press	Kgs	..	..	6620	164523
Sports goods and Toys	Kgs	10	8378	454	40566
Agarbathi dhoop	Kgs	..	..	400	17293
Handmade Straws	Kgs	..	..	200	42496
Christmas Stars	Dox	1300	151843	..	..
Brooms	Nos	..	..	100	1043
Normal Donded Padding materials	Kgs	..	..	3032	159757
Tissue paper	Kgs	..	..	338	25855
Books and Stationery	Kgs	15288	2464244	6395	159442
Duples Cartons	Kgs	1045	141686	19184	415874
Hot cup with Handles	Kgs	..	..	6071	211094
Disposable Catering Ware etc.	Kgs	..	..	21232	778764
Cloth Whiteness Instant Action Liquid	Kgs	..	..	4395	93602
Ball point pens	Kgs	..	..	2548	487034
Coqsumer Pack	Kgs	16000	320983	..	..
Insulation Paper Board	Kgs	2130	46727	100	14882
Transformers	Kgs	6800	306600	60	13500
Electrical Goods etc.	Kgs	12604	1025231	456	173083
A.C. Power Supply Unit	Kgs	..	..	22	28370
Beedies	Kgs	19239	1666496	17745	2783171
Beedi Leaves	Kgs	11921	661373	..	..
Plywood	Qtls	956	2525944	815	2641186
Plywood Tea Chest Panels	Qtls	..	..	167	120170
Rubber Wood Lamination Board	Qtls	..	..	214	419533
Wip Check Compressed Floor Board	Qtls	..	..	71	140192
Hard Board	Qtls	13144	9815464	4950	2133063
Palmyra	Qtls	1035	2159266	321	728651
Sandalwood Spent/Dust etc	Qtls	4213	2520201	6485	4329321
Musical Instruments	Kgs	30	1500	20	5000
Key Chain with Plastic logs	Kgs	..	..	71	13258
Toilet soap	Rgs	233702	9189461	255898	10164809
Printing Inks (Coloured)	Kgs	..	..	500	69540
Scientific Material/Equipments	Kgs	..	..	140	14545
Spooling Cores (Wooden)-	Kgs	..	..	125	7731
Coconut tree (Saplings)	Kgs	..	..	20011	236520
Ayurvedic Medicines	Qtls	1253	569923	7960	698788
Country Drugs	Qtls	10182	4265792	1001	1087015
Liana Trunks	Qtls	..	..	35	121795

(1)	(2)	(3)	(4)	(5)	(6)
Easy Chairs	Kgs	..	..	75	800
Polygone Assembly of Chemco	Kgs	..	..	36	11459
Facsimile Systems	..	..	..	..	..
Porcelain Vessels	Kgs	475	22483	..	..
Clay pots	Kgs	11921	141640	628	38398
Ceramic Jars (Emphy)	Kgs	5035	44850	995	24690
White ceramic Rods	Kgs	..	..	1262	87975
Tiles and Bricks	Kgs	54631	66855	26000	106600
Photo Colour Film	Mtrs	154	1933	..	..
Sundry Items	Mtrs	..	272	..	141823
Total		..	12113415518	..	13234901916

Source: Indian Chamber of Commerce & Industry, Cochin.

APPENDIX 8.2

Commodity-wise Exports Through Kochi Port: 1981-82 to 1990-91

(In tonnes)

Sl.No.	Commodities	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Coir Products	31361	30070	28474	27083	25795	24677	25393	24116	26117	24198
2.	Tea	48165	41138	37067	57585	26178	22307	15371	22884	12347	9530
3.	Rubber & rubber products	382	455	634	1514	1246	774	1727	2159	4576	5372
4.	Coffee	38544	34365	29216	33477	46456	31056	47058	41248	57852	35892
5.	Cashew kernels	25930	32455	38501	35776	36391	42685	37323	33932	46095	49970
6.	Chemicals	4589	7513	6478	5701	6923	6565	7216	9901	6992	10133
7.	Cotton raw & waste	4293	4106	12431	3183	90	520	486	..	847	660
8.	Cotton piece goods	7713	10502	10571	17130	13020	8401	11296	9885	11647	13491
9.	Rice and other food grains	4074	4282	2105	1648	150	949	959	1405	1935	12797
10.	Pepper	20417	22714	2539	25023	36388	36547	42077	35281	34664	30443
11.	Ginger	3774	3063	3463	4741	5458	2335	1924	3882	4414	2878
12.	Cardamom	804	450	198	710	817	320	79	120	66	79
13.	Turmeric	2068	1877	1301	2151	1827	2189	1690	2034	2124	2576
14.	Coconut oil	1	3	3	..	..	..	..	..	..	..
15.	Cashew shell liquid	5244	4579	2233	3493	1633	1888	5372	915	1919	2855
16.	Lemongrass oil	142	205	39	227	12	13	34	44	162	19
17.	Timber	3939	4283	3505	2440	2304	2492	3930	4170	3913	2752
18.	Marine products	42546	42422	36780	37413	34947	40235	42516	52810	53123	58598
19.	Machinery	3430	3403	2856	3079	1899	1909	2188	1587	3297	4132
20.	Iron & Steel	1665	2746	2115	1372	1389	608	971	1184	2054	1961
21.	Mineral sand including granite	4744	3988	4488	6306	5569	1477	4719	1747	1086	1112
22.	Cement	1058	1907	2729	4150	1635	2040	240	975	..	..
23.	Miscellaneous	1042985	982198	651518	123507	469071	1053216	964068	1032691	796238	755538
Total		1297868	1238724	902094	397709	719198	1283203	1216637	1282970	1071468	1024986
Total Traffic		5501403	5710171	5004246	4074494	5278211	6883292	6801544	7824128	7124627	7275303

Source: Cochin Port Trust: Administration Report 1990-91

APPENDIX 8.3

Commodity-wise Imports Through Kochi Port: 1981-82 to 1990-91

(In tonnes)

Sl. No.	Commodities	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Rice & Paddy	..	..	58958	48804	5265	11	4000	46630	25221	15146
2.	Other grains including pulses and flour	105250	91274	46951	..	..	329	1494	117036	17660	12162
3.	Cashew nuts	16135	886	17736	9813	6959	26529	30499	21847	21060	4809
4.	Machinery	5933	4283	6879	11842	4396	3616	8490	7688	5813	3454
5.	Iron & Steel	19966	57257	50401	8438	3511	5369	17059	6490	14959	3095
6.	Tin plate	1393	980	959	773	182	524	767	391	245	276
7.	Motor vehicles & Parts	178	200	470	875	745	710	445	170	85	22
8.	Chemical & Chemical preparation	2854	1187	10734	17315	1671	1409	6789	7796	2656	3689
9.	Oil seeds including copra & ground nuts	111	111	3	381	..	..	6011	319	1400	5596
10.	Drugs & medicines	49	26	56	5	..	..	..	..	189	51
11.	Paper, old news paper & stationery	44684	13539	16217	32126	29438	21445	5807	21957	18155	22721
12.	Cotton, raw & waste	1222	..	..	..	517	..	289	5094	700	4
13.	Oilman stores, provision and spices	..	..	..	..	334	..	88	..	228	98
14.	Sulphur	158230	146381	114245	178646	175830	190507	191164	221184	209258	175195
15.	Rock phosphate	223979	263682	206833	232376	193249	223030	294597	163956	270363	258994
16.	Fertilizers	101475	74768	81842	146675	221328	151916	110567	138766	209005	180812
17.	Liquid ammonia	47026	59269	100285	110406	92355	147705	141497	136635	97574	131532
18.	Phosphoric acid	..	..	..	115861	86263	172381	128751	163919	103229	117898
19.	Salt	..	..	..	..	..	..	..	..	..	..
20.	Zinc concentrate	10999	24753	16468	17001	23066	38605	21940	35231	11313	15555
21.	Calcined bauxite	13166	13584	7000	13710	5895	6091	12809	2103	9726	12181
22.	Soda	2	..	..	..	3	..	..	231	..	..
23.	Candles, paraffin wax & tallow	10906	14754	9523	..	1030	500	..	..	..	..
24.	Cement	128580	197766	118664	22182	27561	26412	..	..	..	2238
25.	Sugar	..	..	..	24685	100072	23635	..	..	41016	..
26.	Miscellaneous	3311397	3506777	3237928	2684871	3579343	4559302	4601844	5443715	4993304	5284789
Total Imports		4203535	4471447	4102152	3676785	4559013	5600089	5584907	6541158	6053159	6250317

Source: Cochin Port Trust: Administration Report 1990-91

APPENDIX 8.4

Export of Marine Products: India, 1961-62 to 1990-91

(Quantity in Tonnes Value in Rs. Crores)

Years	Quantity	Value	Average unit Value (Rs/Kg)	Growth rate (percentage)	
				Quantity	Value
1961-62	15732	3.92	2.49	-21.30	-15.52
1962-63	11161	4.20	3.76	-29.06	+7.15
1963-64	19057	6.09	3.19	+70.04	+44.96
1964-65	21122	7.14	3.38	+10.84	+17.44
1965-66	15295	7.06	4.62	-27.59	-1.20
1966-67	21116	17.37	8.23	+38.06	+145.90
1967-68	21907	19.72	9.00	+37.74	+13.53
1968-69	26811	24.70	9.21	+22.39	+25.26
1969-70	31695	33.46	10.56	+18.22	+35.47
1970-71	35883	35.07	9.77	+13.21	+4.83
1971-72	35523	44.55	12.54	-1.00	+27.03
1972-73	39903	59.72	15.35	+9.52	+34.08
1973-74	52279	89.51	17.12	+34.38	+49.88
1974-75	45099	68.41	15.17	-13.73	-23.57
1975-76	54463	124.53	22.86	+20.76	+82.03
1976-77	66750	189.12	28.33	+22.56	+5.87
1977-78	65967	180.95	27.43	-1.17	-4.92
1978-79	86894	234.62	27.00	+31.72	+29.66
1979-80	86401	248.82	28.80	-0.57	+6.65
1980-81	75591	234.84	31.07	-12.51	-5.62
1981-82	70105	286.01	40.80	-7.26	+21.79
1982-83	78085	361.36	46.22	+11.51	+26.35
1983-84	92691	373.02	40.24	+18.57	+3.23
1984-85	86187	384.29	44.59	-7.02	+3.02
1985-86	83651	398.00	47.58	-2.94	+3.57
1986-87	85843	460.67	53.66	+2.62	+15.739
1987-88	97179	531.90	54.66	+13.21	+15.91
1988-89	99777	597.85	59.92	+2.67	+12.55
1989-90	110843	634.99	57.29	+11.09	+6.21
1990-91	139419	893.37	64.08	+25.78	+40.69

Source: The Marine Products Export Development Authority, Kochi.

APPENDIX 8.5

*Export of Marine Products: India**Changing Pattern of Major Markets*

(Qty in tonnes, Value in Rs. lakhs)

Year	Japan	Share	USA	Share	W.Europe	Share	Other Countries	Share	Total
1981-82	Q: 40011	57.07	10428	15.02	9202	13.13	10364	14.78	70105
	V: 20287	70.93	3498	12.23	2755	9.23	2063	7.21	28601
1982-83	Q: 411.36	52.60	12276	15.70	7409	9.48	17354	22.20	78175
	V: 26263	7268	4258	11.78	2734	7.57	2881	8.97	36136
1983-84	Q: 37424	40.38	13496	14.56	9493	10.24	32278	34.82	92691
	V: 24023	64.40	4981	13.35	3763	10.09	4535	12.16	37302*
1984-85	Q: 41536	48.19	13647	15.84	8896	10.32	22108	25.65	86187
	V: 26036	67.75	5654	14.71	3471	9.03	3268	8.51	38429
1985-86	Q: 40327	48.21	9519	11.38	14231	17.01	19574	23.40	83651
	V: 27771	69.78	4606	11.57	4316	10.84	3107	7.81	99800
1986-87	Q: 37287	43.44	11374	13.25	17868	20.81	19314	22.50	85843
	V: 31058	67.42	5630	12.22	5944	12.90	3435	7.46	46067
1987-88	Q: 38738	39.86	14444	14.86	22816	23.48	21181	21.80	97179
	V: 32618	61.40	7515	14.15	8426	15.86	4561	8.59	53120
1988-89	Q: 35811	35.89	13531	13.56	33824	33.90	16611	16.65	99777
	V: 35684	59.69	7012	11.73	12449	20.82	4640	7.76	59785
1989-90	Q: 38763	34.97	13802	12.45	36970	33.36	21308	19.22	110843
	V: 34566	54.44	7833	12.32	15530	24.46	5570	8.87	63499
1990-91	Q: 38092	27.32	16155	11.59	42964	30.82	42208	30.27	139419
	V: 45827	51.30	10931	12.23	23189	25.96	9390	10.51	89337

Source: The Marine Products Export Development Authority, Kochi.

APPENDIX 8.6

Item-wise Exports of Spices: India 1986-87 to 1990-91

(Quantity in MT Value Rs. '000)

Item	1986-87		1987-88		1988-89		1989-90		1990-91	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Pepper	37083	2003301	41011	2405778	36981	1646316	34428	1529659	31871	1110604
Small Cardamom	1447	184953	270	34003	787	103736	180	30668	3791	102224
Large cardamom	195	9669	155	7022	464	20010	787	29482	961	43155
Chillies	4327	49580	6122	83345	7876	171837	11983	258531	23178	279802
Ginger	4843	57116	2628	48899	6368	94082	9037	126896	5487	109339
Turmeric	19529	191831	8747	92272	18968	193928	16860	161528	12764	143390
Curry Powder	2712	41401	2559	43810	3066	56626	3320	67542	2787	60117
Coriander	1177	14013	892	13947	8175	59104	2664	27850	3236	38015
Cumin	1761	34381	913	24822	1213	39183	4030	69506	1035	29679
Celery	2685	26157	2492	24063	2997	31589	3106	37385	2598	33527
Fennel	864	12240	802	15382	1099	20837	2284	31125	1153	19922
Fennugreek	3224	16833	2194	19984	3575	36672	6241	44143	3449	28396
Other Seeds	993	12930	415	7386	1384	18878	1578	17405	923	11226
Garlic	574	5157	242	1944	4178	23015	2241	17680	4646	32772
Other Misce. Spices	971	12076	409	8469	2239	46541	2660	79632	1945	31863
Spice Oils & Oleorns	442	148305	428	149677	576	185732	717	228577	879	312660
Grand Total	82827	2819943	70279	2980803	99946	2748066	102170	2757609	97291	2386691

Original Source Upto 1987-88 : Daily lists of Exports published by Customs.
 1988-89 & 89-90: DGCI&S., Calcutta (Provisional)
 1990-91 : April-October* 1990; DGCI&S., Calcutta. November 1990-March 1991, shipping bills passed by
 Customs and Exporters' Returns. (Provisional)

Source Spices Board, Kochi.

APPENDIX 9.1

Educational Institutions in Kerala-District-wise-1991

Name of District	High Schools				Upper Primary				Lower Primary				Total			
	Govt.	Aided	Un aided	Total	Govt.	Aided	Un aided	Total	Govt.	Aided	Un aided	Total	Govt.	Aided	Un aided	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1. Thiruvananthapuram	118	94	17	229	98	103	20	209	306	182	16	504	522	379	41	942
2. Kollam	75	125	6	206	62	143	8	213	277	191	10	478	414	459	24	897
3. Pathanamthitta	47	113	5	165	44	83	8	135	171	243	13	427	262	439	26	727
4. Alappuzha	58	125	4	187	67	78	2	147	198	199	14	411	323	402	20	745
5. Kottayam	58	166	12	236	68	130	3	201	175	280	23	478	301	576	38	915
6. Idukki	53	70	6	129	47	63	4	114	74	141	3	218	174	274	13	461
7. Ernakulam	84	172	23	279	89	100	15	204	194	279	18	491	367	551	56	974
8. Thrissur	77	148	14	239	55	166	6	227	124	397	8	529	256	711	28	995
9. Palakkad	57	73	8	138	63	159	6	228	188	351	10	549	308	583	24	915
10. Malappuram	81	73	5	159	109	225	4	338	345	478	4	827	535	776	13	1324
11. Kozhikode	65	94	7	166	76	241	7	324	188	538	2	728	329	873	16	1218
12. Wayanad	34	22	2	58	34	40	1	75	68	52	5	125	136	114	8	258
13. Kannur	80	72	1	153	77	279	0	356	121	623	5	749	278	974	6	1258
14. Kasaragod	73	33	1	107	71	73	0	144	136	114	3	253	280	220	4	504
Total	960	1380	111	2451	960	1883	72	2915	2565	4068	134	6767	4485	7331	317	12133

APPENDIX 9.2

Standard-wise strength of Students 1990-91

Standard	Government Schools			Private Aided Schools			Private Unaided Schools			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
I	124022	119753	241675	172138	167156	339294	10362	9699	20061	306522	294508	601030
II	128380	120473	248853	178008	170027	348035	9564	8929	18493	315952	299429	615381
III	131001	122510	253511	178121	169900	348021	9237	8533	17770	318359	300943	619302
IV	137266	127982	265248	182168	173256	355424	8438	7580	16018	327872	308818	636690
V	122685	114898	237583	208468	199044	407512	8068	6899	14967	339221	320841	660062
VI	117200	111133	228333	203119	193666	396755	8152	6789	14941	328471	311558	640029
VII	114653	107939	222592	200384	193428	393812	7330	5981	13311	322367	307348	629715
VIII	120785	112792	233577	171105	162538	333643	6191	5479	11670	298081	280809	578890
IX	105793	103078	208871	152613	152713	305326	5727	5230	10957	264133	261021	525154
X	76930	79399	156329	109423	119569	228992	4977	4550	9527	191330	203518	394848
Total	1178715	1117857	2296572	1755549	1701267	3456814	76046	69669	147715	3012308	2888793	5901101

Source: Directorate of Public Instruction.

APPENDIX 9.3

Number of School Teachers in Kerala-Sectionwise-1991

Section	Government			Private Aided			Private Un Aided			Total		
	Men	women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Lower Primary	11114	17306	28420	13638	28635	42273	235	1313	1548	24987	47254	72241
Upper Primary	10040	11522	21562	13487	24898	38385	290	984	1274	23817	37404	61221
High School												
Training	10001	12006	22007	13368	20508	33876	625	1038	1663	23994	33552	57546
Total	31155	40834	71989	40493	74041	114534	1150	3335	4485	72798	118210	191008

APPENDIX 9.4

List of Uneconomic Schools-District-wise 1990-91

District	No. of Un economic Schools		
	Government	Private	Total
Thiruvananthapuram	46	12	58
Kollam	15	23	38
Pathanamthitta	60	92	152
Alappuzha	49	22	71
Kottayam	61	73	134
Idukki	42	36	78
Ernakulam	28	16	44
Thrissur	22	28	50
Palakkad	11	22	33
Malappuram	8	7	15
Kozhikode	33	46	79
Wayanad	8	..	8
Kanoor	52	116	168
Kasaragode	20	16	36
	455	509	964

Source: Directorate of Public Instruction.

APPENDIX 9.5

Number of Arts and Science Colleges in Kerala 1990-91

Sl. No.	District	Government	Private	Total
(1)	(2)	(3)	(4)	(5)
1	Thiruvananthapuram	8	11	19
2	Kollam	1	12	13
3	Pathanamthitta	..	8	8
4	Alappuzha	..	11	11
5	Ernakulam	5	19	24
6	Kottayam	1	20	21
7	Idukki	1	4	5
8	Thrissur	4	16	20
9	Malappuram	3	7	10
10	Palakkad	3	7	10
11	Kozhikode	7	7	14
12	Wayanad	2	2	4
13	Kannur	2	7	9
14	Kasaragod	3	1	4
	Total	40	132	172

APPENDIX 9.6

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)
1987	32250	3900	3925	6900	1850	51825	33792	6081	489	4500	1204	527	370	46963
1988	38000	2900	3800	7200	1500	53400	38206	5500	650	4079	1282	544	421	50682
1989	26841	4697	5120	8734	1575	46967	39960	7650	852	6086	1464	607	669	57288
1990	26440	3250	5325	6170	2000	43185	48967	11700	1137	8066	2022	738	665	73295

APPENDIX 9.7

Strength of Students and Teachers in Engineering Colleges, Polytechnics and Technical High Schools—1989-90 and 1990-91

Name of Institution	Strength of student						Number of teachers					
	1989-90			1990-91			1989-90			1990-91		
	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)
1 Engineering Colleges	8300	2383	10683	8110	2208	10318	1156	231	1387	1352	227	1579
2 Polytechnics	10714	3520	14234	8682	2849	11531	1074	244	1318	1103	195	1298
3 Technical High Schools	4706	3132	7838	627	170	797	7038	869	7907	920	186	1106

Source: Directorate of Technical Education.

APPENDIX 9.8

Intake and Outturn in Engineering Colleges, Polytechnics and Technical High Schools from 1986-1991

Year	Engineering Colleges				Poly technics			Technical High Schools				
	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)
1986	7	2514	2514	1014	25	3533	3404	2109	44	2480	2310	1074
1987	7	2514	2514	2073	25	3533	3404	2200	47	2570	2510	1374
1988	7	2524	2524	2104	25	3544	3544	2305	47	2570	2570	1474
1989	8	2656	2656	2110	28	4231	4231	2436	47	2570	2570	1504
1990	8	2656	2656	2127	28	4231	4231	2472	47	2570	2570	1534
1991	9	2941	2784	1789	30	4389	4554	2974	47	2730	2693	2056

Source: Directorate of Technical Education.

APPENDIX 9.9

Number of Polytechnics and Technical High Schools in Kerala (District-wise)

(1)	Number of Polytechnics			Number of Technical High Schools				
	1989-90		Total	1990-91		Total	1989-90	1990-91
	Government	Private		Government	Private		(8)	(9)
1. Thiruvananthapuram	2	..	2	3	..	3	4	4
2. Kollam	..	1	1	..	1	1	2	2
3. Pathanamthitta	1	1	2	1	1	2	1	1
4. Alappuzha	1	1	2	1	1	2	4	4
5. Kottayam	2	..	2	2	..	2	7	7
6. Idukki	1	..	1	1	..	1	2	2
7. Ernakulam	3	..	3	3	..	3	5	5
8. Thrissur	3	1	4	3	1	4	4	4
9. Palakkad	2	..	2	2	..	2	3	3
10. Malappuram	1	1	2	1	1	2	4	4
11. Kozhikode	3	..	3	3	..	3	3	3
12. Wayanad	1	..	1	1	..	1	2	2
13. Kannur	1	..	1	2	..	2	4	4
14. Kasaragod	1	1	2	1	1	2	2	2
Total	22	6	28	24	6	30	47	47

Source: Directorate of Technical Education.

APPENDIX 9.10

Medical Institutions and Beds in Kerala—Category wise—1991

District	Hospital		Primary Health Centres including MGH Units		Community Health Centres		Dispensaries		Other Categories			
	No.	Beds	No.	Beds	No.	Beds	No.	Beds	T.B. Centres/ Clinics		Leprosy Control Units	
									No.	Beds	No.	Beds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Thiruvananthapuram	18	5714	76	320	6	251	7	30	1	28	1	..
2. Kollam	9	1473	63	266	4	70	1	15	3	79	3	..
3. Alappuzha	11	3282	64	275	3	178	1	..	2	76	1	..
4. Pathanamthitta	5	491	46	273	3	175	1	..	1	..	..	..
5. Kottayam	13	2295	58	419	3	284	..	..	2	48	..	..
6. Idukki	3	328	56	277	2	110	..	..	1	..	..	..
7. Ernakulam	21	2639	79	565	6	264	3	68	4	64	..	..
8. Thrissur	19	3249	80	423	3	149	6	..	1	..	2	..
9. Palakkad	8	1054	81	735	3	238	8	..	1	54	1	..
10. Malappuram	7	929	91	556	5	254	5	..	2	97	3	..
11. Kozhikode	10	3923	66	188	6	152	2	..	1	20	2	..
12. Wayanad	3	367	30	100	3	123	4	..	1	..	..	..
13. Kannur	10	1558	71	206	4	631	10	46	1	..	..	..
14. Kasaragod	3	257	47	111	3	280	3	..	1	..	2	..
Total	140	27559	908	4714	54	3159	51	159	22	466	15	..

APPENDIX 9.11

District-wise availability of vehicles under Directorate of Health Services

District	Vehicles in running condition	Vehicles in workshop	Others kept for condemnation	Total
(1)	(2)	(3)	(4)	(5)
1. Thiruvananthapuram	109	13	17	139
2. Kollam	36	6	10	52
3. Alappuzha	44	6	..	50
4. Pathanamthitta	19	4	4	27
5. Kottayam	38	3	1	42
6. Idukki	29	9	..	38
7. Ernakulam	47	1	11	59
8. Thrissur	45	7	6	58
9. Palakkad	73	8	4	85
10. Malappuram	67	8	6	81
11. Kozhikode	38	8	35	81
12. Wayanad	32	6	..	38
13. Kannur	36	7	13	56
14. Kasaragod	20	4	..	24
Total	633	90	107	830

APPENDIX 9.12

Statement showing No. of Attacks and Deaths due to Principal Diseases during 1990 and 1991

Sl.No.	Name of Disease	Patients treated during 1990		1991	
		Attack	Death	Attack	Death
(1)	(2)	(3)	(4)	(5)	(6)
1.	Diphtheria	97	5	25	5
1.	Dysentery	786632	164	869832	133
3.	Whooping cough	8575	9	3160	1
4.	Gastro Enteritis	21004	69	19132	52
5.	Tetanus	92	16	73	16
6.	Meningococcal Infection	109	9	181	10
7.	Measles	23156	3	11110	3
8.	Syphilis	638	..	460	..
9.	Poliomyelitis	96	5	39	..
10.	Gonococcal Infection	1874	..	2136	..
11.	Tuberculosis	55362	300	49420	216
12.	Rabies	256	25	425	34
13.	Enteric Fever	5687	7	6221	9
14.	Chicken Pox	5210	27	5322	11
15.	Influenza	..	..	..	..
16.	Encephalities	..	..	..	..
17.	Infective Hepatitis	9056	17	9287	15
18.	Acute Respiratory Infection	1722455	83	2329479	275
19.	All other diseases	13022270	3697	11908648	3527

APPENDIX 9.13

District-wise distribution of Institutions Beds and Patients treated under Ayurvedic Systems of Medicine in Kerala 1990 and 1991

District	Hospitals		No. of beds		No. of Dispensaries		Total No. of Institutions		No. of patients treated (1991)		Total
	No. of Hospitals 1990-	1991	1990	1991	1990	1991	1990	1991	Inpatients	Outpatients	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Thiruvananthapuram	12	12	225	235	48	49	60	61	4057	690966	695023
2. Kollam	9	9	190	190	35	37	44	46	2253	456732	458985
3. Alappuzha	10	10	180	180	35	36	45	46	3453	546974	550427
4. Pathanamthitta	4	4	80	80	23	24	27	28	866	133133	133999
5. Kottayam	8	8	150	150	24	27	32	35	1278	299568	300846
6. Idukki	3	3	90	110	21	25	24	28	1807	323648	325455
7. Ernakulam	11	12	180	200	46	46	57	58	2001	496942	498943
8. Thrissur	14	14	223	223	63	64	77	78	3106	441855	444961
9. Palakkad	5	5	120	130	46	49	51	54	1364	171214	172578
10. Malappuram	10	10	200	200	50	51	60	61	1687	257640	259327
11. Kozhikode	5	6	100	120	33	35	38	41	1051	200743	201794
12. Wayanad	1	2	50	100	16	17	17	19	605	55401	56006
13. Kannur	5	6	111	211	38	40	43	46	1336	178128	179464
14. Kasaragod	4	5	80	100	28	29	32	34	831	171429	172260
Total	101	106	1979	2229	506	529	607	635	25695	4424373	4450068

APPENDIX 9.14

District-wise Distribution of Institutions, Beds and Patients treated under Homoeopathy during 1990 and 1991

District	No. of Hospitals		No. of Beds		No. of Dispensaries		Total No. of Institutions		No. of patients treated		
	1990	1991	1990	1991	1990	1991	1990	1991	Inpatients	Outpatients	Total
1. Thiruvananthapuram	4	4	150	150	27	31	31	35	2494	1997361	1999855
2. Kollam	2	3	50	75	20	21	22	24	2244	3845491	3847735
3. Alappuzha	3	3	75	75	22	25	25	28	977	8779632	8780609
4. Pathanamthitta	1	1	25	25	10	13	11	14	..	6873329	6873329
5. Kottayam	3	3	155	175	21	22	24	25	1163	3305466	3306629
6. Idukki	2	2	50	50	17	22	19	24	4939	3844194	3849133
7. Ernakulam	2	2	50	50	33	35	35	37	750	4408757	4409507
8. Thrissur	1	1	25	25	20	22	21	23	1023	4769997	4770420
9. Palakkad	1	1	25	25	17	21	18	22	215	4982774	4982989
10. Malappuram	2	2	50	50	27	29	29	31	274	5619790	5614064
11. Kozhikode	1	3	25	75	24	28	25	31	634	11939713	11940347
12. Wynad	1	1	25	25	7	9	8	10	90	107220	107220
13. Kannur	1	1	25	25	19	21	20	22	..	6659054	6659054
14. Kasargode	2	3	50	75	10	13	12	16	..	17896	17896
Total Kerala	26	30	780	900	274	312	300	342	14713	67144074	67158787

APPENDIX 9.15

Total and Per Capita State Government wise and All India Expenditure on Health 1980-81 to 1989-90
(Revenue and Capital Accounts Combined)

States	Total Expenditure (Rs. crores)						Per Capita (Rs.)					
	1980-81	1985-86	1986-87	1987-88	1988-89	1989-90	1980-81	1985-86	1986-87	1987-88	1988-89	1989-90
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Punjab	53	90	127	147	166	223	32	49	68	77	85	114
Rajasthan	114	109	311	392	428	452	33	28	77	95	101	104
Kerala	82	127	184	201	227	290	32	46	65	70	77	98
Gujarat	88	120	268	308	284	338	26	32	70	79	72	84
Maharashtra	171	478	531	541	583	617	27	69	75	75	80	83
Tamil Nadu	111	275	296	354	366	455	23	52	55	65	67	82
Haryana	39	58	94	112	116	128	31	39	62	72	73	79
Assam	40	71	100	167	179	172	22	32	44	71	75	70
West Bengal	141	209	283	317	367	445	26	35	46	51	58	69
Karnataka	71	150	235	260	268	302	19	36	56	61	61	68
Orissa	59	75	134	154	169	200	22	26	46	52	56	65
Andhra Pradesh	123	189	293	365	391	480	23	32	49	60	63	65
Madhya Pradesh	120	150	300	383	458	397	27	26	51	63	74	68
Uttar Pradesh	157	316	446	531	646	709	14	26	36	41	49	58
Bihar	98	149	272	260	293	307	14	19	34	32	35	36
<i>Other States</i>												
Nagaland	16	32	39	49	49	63	197	355	433	490	447	574
Sikkim	2	4	7	15	18	19	81	100	175	375	438	466
Mizoram	..	9	3	29	29	30	..	150	50	483	416	434
Goa	..	..	31	31	42	51	..	..	238	238	324	362
Arunachal Pradesh	..	..	19	25	26	26	..	..	271	357	325	327
Megalaya	16	15	27	32	38	47	120	100	169	200	236	277
Jammu and Kashmir	51	114	128	134	155	174	84	170	185	194	216	238
Manipur	14	12	35	30	35	37	98	75	219	176	205	219
Himachal Pradesh	36	36	75	97	111	106	84	77	156	202	227	212
Tripura	6	13	23	29	35	40	31	57	96	121	140	161
All India	1608	2800	4259	4963	5480	6038	24	37	56	64	69	74

Source: Basic Statistics relating to Indian Economy—September 1991—CMIE

APPENDIX 9.15 (a)

Family Welfare Programme in 1991 District wise

District	PPS				Total		I.O.D.				
	Vasectomy	PPS	Minilap	Lapros- copic	Col 2-5	L.L.	Cu't	Col 7-8	Niroth Suppl- ied C.C.	Oral pills	Induced abortion
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Thiruvananthapuram	164	14550	4209	2199	20958	..	10535	10535	3039287	50349	3972
2. Kollam	160	12801	1988	3530	18919	..	11013	11013	2255498	53381	1689
3. Pathanamthitta	32	4634	686	2102	7422	..	4831	4831	779775	24229	1022
4. Alappuzha	694	4614	3362	737	8713	..	8619	8619	1412207	38469	2220
5. Kottayam	219	6312	573	3283	10168	..	9667	9667	1419717	30272	1723
6. Idukki	66	4407	951	1405	6763	..	5137	5137	903514	19805	83
7. Ernakulam	316	12961	600	3140	16701	..	10080	10080	1649054	29577	2943
8. Thrissur	284	13407	1583	3621	18611	..	11003	11003	1611621	36965	1964
9. Palakkad	46	7737	937	6843	15517	..	10048	10048	1368545	33107	1310
10. Malappuram	76	9133	2816	3312	15261	..	9824	9824	1809350	58162	570
11. Kozhikode	427	17121	3831	2623	23575	11003	12480	12480	2392644	54035	2186
12. Wayanad	171	3460	346	1274	5080	10048	3778	3778	837803	15740	108
13. Kannur	262	10202	637	3603	14442	..	9003	9003	1766243	53095	1449
14. Kasaragode	86	3702	180	2132	6014	..	3729	3729	814261	31278	958
Total	3003	125041	22699	39804	187544	..	119747	119747	22060019	528464	22197

APPENDIX 9.15 (b)

Total and Per Capita State Government Expenditure on Education 1980-81 to 1989-90

(Revenue and Capital Accounts Combined)

States	Total Expenditure (Rs. crores)						Per Capita (Rs.)					
	1980-81	1985-86	1986-87	1987-88	1988-89	1989-90	1980-81	1985-86	1986-87	1987-88	1988-89	1989-90
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
<i>Major States</i>												
Punjab	139	241	256	337	395	570	83	130	136	176	203	291
Kerala	217	425	489	518	584	713	85	153	173	180	199	240
Maharashtra	382	795	965	1090	1287	1628	61	114	136	151	176	219
Gujarat	181	476	471	579	693	811	53	126	123	148	175	201
Haryana	73	155	177	233	273	321	57	105	116	150	173	198
Tamil Nadu	242	564	612	699	794	952	50	107	115	129	145	171
Karnataka	173	382	436	574	641	747	47	92	103	134	146	167
Andhra Pradesh	231	539	571	695	786	1061	43	92	95	114	127	168
Orissa	108	208	266	295	354	510	41	72	90	99	116	165
Assam	97	221	306	305	339	404	54	99	134	130	142	165
Rajasthan	146	328	377	475	547	710	43	84	94	115	129	163
West Bengal	247	539	683	723	854	1007	45	89	111	116	134	155

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Uttar Pradesh	351	787	877	974	1295	2004	32	64	70	76	99	150
Bihar	236	538	503	424	862	1139	34	69	63	65	104	135
Madhya Pradesh	172	388	438	541	652	777	33	67	74	89	105	123
<i>Other States</i>												
Sikkim	4	13	15	18	23	26	133	325	375	450	568	653
Arunachal Pradesh	..	..	30	40	45	46	..	..	429	571	567	570
Mizoram		21	6	35	35	40	..	350	100	583	504	566
Goa	..	..	43	43	61	68	..	..	331	331	466	482
Manipur	20	41	45	54	79	81	143	256	281	318	467	475
Nagaland	13	32	34	41	49	52	163	355	378	410	441	474
Tripura	17	41	54	66	95	99	81	178	225	275	381	396
Meghalaya	10	23	27	32	39	63	77	153	169	200	242	372
Himachal Pradesh	45	80	94	127	162	178	105	170	196	265	331	356
Jammu & Kashmir	44	93	99	121	168	203	73	139	146	175	233	278
All States	3148	6928	7876	9139	11110	14209	47	90	103	117	140	175

Source: Basic Statistics Relating to Indian Economy, Vol. 2, September 1991.

APPENDIX 10.1

Disposal of Cases relating to Tenancy and Kudikidappu

Sl.No.	Item	Tenancy		Kudikidappu	
		As on 30-11-1990	As on 30-11-1991	As on 30-11-1990	As on 30-11-1991
1	Total number of applications filed	3927734	3950512	471995	474158
2.	Disposal of Cases				
	(i) Allowed	2588442	2605020	287003	288349
	(ii) Rejected	769782	776228	160131	161195
	(iii) Other Disposals	551553	551910	20867	20835
	Total	3909777	3933158	468001	470379
3.	Balance of applications to be disposed of	17957	17354	3994	3779
4.	Number of certificates of purchase issued	2583066	2598652	278718	278982

Source: Land Board Kerala

APPENDIX 10.2

Distribution of surplus land

Sl.No.	Item	Unit	As on 30-11-1990	As on 30-11-1991
(1)	(2)	(3)	(4)	(5)
1.	Total ceiling returns filed	No.	71241	71251
2.	Total ceiling returns decided	"	70178	70324
3.	Balance to be decided	"	1063	935
4.	Area ordered to be surrendered	Acres	164962	168428
5.	Area reduced on orders of High Court	"	32241	33957
6.	Net extent of land ordered for surrender	"	132721	134471
7.	Extent of land taken over	"	92817	93178
8.	Area reconveyed on order of High Court	"	..	..
9.	Net extent taken over	"	92817	93178
10.	Balance extent to be taken over		39904	41293
	(i) Covered by stay against taking possession	"	20152	22710
	(ii) Net to be taken over by gift, dispute, vested forest etc.	"	19031	17923
	(iii) Extent available for taking over	"	721	660
11.	Surplus land distributed	"	62673	63045
12.	Balance extent taken over pending distribution	"		
	(i) Covered by stay against assignment	"	4082	3679
	(ii) Not distributed due to gift, vested forest etc.	"	5067	5104
	(iii) Reserved for public purposes	"	20202	20821
	(iv) Available for distribution	"	895	1102

Source: Land Board Kerala.

APPENDIX 10.3

Beneficiaries of Surplus land and extent distributed as on 30-11-1991 (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)	(10)
1	Thiruvananthapuram	3048	332	..	..	2349	271	5397	603
2	Kollam	3419	775	..	..	3208	821	6627	1596
3	Pathanamthitta	330	86	..	..	394	68	724	154
4	Alappuzha	3807	2100	35	5	4110	2263	7952	4368
5	Kottayam	2385	1240	75	60	2810	1229	5270	2529
6	Idukki	2186	2026	353	312	2317	2112	4856	4450
7	Ernakulam	3677	725	39	5	2176	401	5892	1131
8	Thrissur	7146	1390	51	50	11828	2197	19025	3637
9	Palakkad	11880	5489	1191	939	12227	6161	25298	12589
10	Malappuram	7618	3289	34	12	7072	3887	14724	7188
11	Kozhikode	4167	1194	240	101	5273	1234	9680	2529
12	Wayanad	1316	473	2596	1516	2824	1322	6736	3311
13	Kannur	3585	2372	1771	1441	7735	5623	13091	9436
14	Kasaragode	3609	3174	765	662	6638	5688	11012	9524
Total		58173	24665	7150	5103	70961	33277	136284	63045

Sources: Land Board Kerala

APPENDIX 10.4

District-wise Distribution of surplus Land up to 31-12-1991

District	No. of beneficiaries				Land distribution in Acres			
	SG	ST	Others	Total	SG	ST	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Thiruvananthapuram	3048	..	2349	5397	332.0	..	271.0	603.0
2. Kollam	3419	..	3208	6627	775.0	..	821.0	1596.0
3. Alappuzha	3809	35	4116	7960	2101.0	5.0	2226.0	4332.0
4. Pathanamthitta	330	..	394	724	86.0	..	68.0	154.0
5. Kottayam	2385	75	2810	5270	1240.0	60.0	1229.0	2529.0
6. Idukki	2186	353	2317	4856	2026.0	312.0	2112.0	4450.0
7. Ernakulam	3705	40	2202	5947	726.0	5.0	402.0	1133.0
8. Thrissur	7146	51	11828	19025	1390.0	50.0	2197.0	3637.0
9. Palakkadu	11911	1195	12271	25377	5494.0	940.0	6166.0	12600.0
10. Malappuram	7656	34	7108	14798	3294.0	12.0	3893.0	7199.0
11. Kozhikode	4551	240	5507	10298	1210.0	101.0	1243.0	2554.0
12. Wayanad	1316	2596	2824	6736	473.0	1516.0	1322.0	3311.0
13. Kannur	3594	1771	7743	13108	2374.0	1441.0	5624.0	9439.0
14. Kasaragod	3652	778	6704	11134	3183.0	665.0	5703.0	9551.0
Total	58708	7168	71381	137257	24704.0	5107.0	93277.0	63088.0

State-wise Financial Assistance Disbursed by All India Financial Institutions During 1990-91

Sl. No.	District	(Rs. Crores)																	
		IDBI total	% to total	IFCI	% to total	ICICI	% to total	UTI	% to total	GIC	% to total	LIC	% to total	NABARD	% to total	NCDC	% to total	grand total	% to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
1	Andhra Pradesh	487.3	12.7	150.4	9.9	123.0	8.7	36.1	2.3	7.36	5.03	13.7	3.2	190.52	10.02	28.09	10.8	1036.47	9.35
2	Assam	31.3	0.8	40.8	2.7	13.5	0.9	..	..	0.07	0.05	0.2	0.1	32.54	1.71	12.11	4.7	130.52	1.18
3	Bihar	42.8	1.1	5.4	0.4	9.1	0.6	2.7	0.2	0.85	0.58	5.5	1.2	81.08	4.26	3.68	1.4	151.11	1.36
4	Gujarat	469.8	12.3	187.0	12.3	220.3	15.7	139.7	8.8	29.54	20.17	147.0	34.4	84.94	4.47	6.91	2.7	1285.19	11.60
5	Haryana	145.7	3.8	53.9	3.5	41.8	3.0	20.0	1.3	1.50	1.02	0.7	0.2	84.34	4.43	5.61	2.1	353.55	3.19
6	Karnataka	208.7	5.5	80.9	5.3	59.8	4.3	31.2	1.9	12.88	8.80	11.9	2.8	143.57	7.55	17.06	6.6	566.01	5.11
7	Kerala	76.2	2.0	10.9	0.7	8.5	0.6	1.0	0.1	1.79	1.22	5.4	1.3	81.58	4.29	26.41	10.2	211.78	1.91
8	Madhyapradesh	300.0	7.8	128.6	8.4	85.7	6.1	19.4	1.2	2.04	1.80	3.2	0.7	135.31	7.11	24.59	9.5	639.44	6.34
9	Orissa	129.5	3.4	62.6	4.1	37.1	2.6	12.3	0.8	..	..	5.5	1.3	39.46	2.07	2.40	0.9	288.86	2.61
10	Punjab	108.4	2.8	105.0	6.9	43.7	3.1	8.9	0.6	1.22	0.83	4.8	1.1	108.93	5.73	7.93	3.0	388.88	3.51
11	Rajasthan	157.9	4.1	80.5	5.3	62.9	4.5	20.2	1.3	6.42	4.38	17.2	4.0	80.46	4.23	11.33	4.4	436.91	3.94
12	Madhyapradesh	678.7	17.7	234.1	15.3	379.3	27.0	901.6	56.9	52.25	35.68	110.6	25.9	239.50	12.59	45.06	17.3	2641.11	23.83
13	Tamil Nadu	361.1	9.4	124.2	7.1	127.4	9.1	59.4	3.7	13.93	9.51	45.7	10.7	140.69	7.99	17.44	6.7	889.86	8.03
14	Uttar Pradesh	340.2	8.9	172.0	11.3	77.2	5.5	75.4	4.8	2.88	1.97	9.3	2.2	339.47	17.85	29.65	11.4	1046.10	9.44
15	West Bengal	155.9	4.1	46.1	3.0	54.1	3.8	36.7	2.3	9.05	6.18	30.9	7.2	82.18	4.32	7.12	2.7	422.05	3.81
Total		3693.5	96.4	1482.4	97.2	1304.6	95.5	1364.6	86.2	142.38	97.22	411.6	96.3	1864.57	98.02	245.39	94.4	10547.84	95.18
All India total		3832.5	100.0	1524.9	100.00	1406.4	100.0	1582.7	100.00	146.44	100.0	427.4	100.00	1902.17	100.0	260.03	100.00	11082.54	100.00

Sources 1. IDBI Report 1990-91

2. NCDC

3. NABARD—Annual Report 1990-91

APPENDIX 11.2
State-wise Financial Assistance Disbursed by All India Financial Institutions as at the end of March 1991 (Cumulative)

(Rs. Crores)

Sl. No.	States	IDBI	% to total	IFCI	% to total	ICICI	% to total	NABARD	% to total	NCDC	% to total	LIG	% to total	Grand total	% to total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
1.	Andhra Pradesh	2895.2	8.8	658.4	9.5	633.4	7.2	1529.95	10.69	137.78	7.15	319.4	9.7	6114.13	9.07
2.	Assam	292.2	0.9	58.0	0.9	43.4	0.5	194.66	1.36	61.15	3.17	15.4	0.5	664.81	0.99
3.	Bihar	641.5	2.0	103.5	1.5	222.7	2.5	894.19	5.83	53.02	2.75	184.6	5.6	2039.51	3.03
4.	Gujarat	4018.2	12.5	807.9	11.7	1334.0	15.1	700.59	4.89	60.80	3.16	582.1	17.7	7503.79	11.13
5.	Haryana	1008.9	3.1	252.2	3.7	234.1	2.7	842.28	5.89	48.42	2.51	14.1	0.4	2400.00	3.56
6.	Karnataka	2235.9	7.0	380.0	5.5	519.3	5.9	1095.58	7.66	118.89	6.17	172.5	5.2	4522.7	6.71
7.	Kerala	970.5	3.0	117.9	1.7	99.3	1.1	541.40	3.78	87.42	4.54	36.5	1.1	1853.02	2.75
8.	Madhya Pradesh	1766.1	5.5	408.6	5.9	430.4	5.1	1028.52	7.19	208.87	10.84	99.9	3.0	3962.39	5.88
9.	Maharashtra	4658.7	14.5	1087.4	15.7	2311.3	26.1	1428.99	9.99	255.81	13.28	784.7	23.8	10526.90	15.62
10.	Orissa	1064.7	3.3	193.9	2.8	199.8	2.3	449.26	3.14	67.43	3.50	56.6	1.7	2031.69	3.01
11.	Punjab	1084.0	3.4	451.4	6.5	251.5	2.8	1207.03	8.43	130.49	6.78	42.8	1.3	3167.32	4.70
12.	Rajasthan	1323.8	4.1	348.4	5.0	358.6	4.1	687.53	4.80	130.16	6.76	91.2	2.8	2939.59	4.36
13.	Tamil Nadu	3408.1	10.6	549.7	7.9	880.8	9.9	894.63	6.25	119.62	6.22	293.6	8.9	6146.65	9.12
14.	Uttar Pradesh	3293.7	10.3	904.1	13.1	656.6	7.4	2166.11	15.14	296.44	15.39	154.4	4.7	7471.35	11.08
15.	West Bengal	1626.6	5.1	259.0	3.7	353.4	4.0	481.57	3.37	75.15	3.90	268.9	8.2	3064.82	4.55
	Total	30228.3	94.1	6580.4	95.1	8548.5	96.7	14082.29	94.81	1851.75	96.11	3116.9	94.6	64408.14	95.55
	All India	32114.5	100.0	6918.3	100.0	8844.0	100.0	14309.64	100.00	1926.70	100	3296.2	100.0	67409.34	100.0

Source: 1. IDBI Report 1990-91
2. NCDC
3. NABARD--Annual Report 1990-91

APPENDIX 11.3

Statewise per-capita Assistance disbursed by All India Financial Institutions during 1989-90 & 1990-91

States	(Rupees)															
	IDBI	IFCI			ICICI			LIG			UTI			GIC			Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
1. Andhra Pradesh	67.0	77.2	18.2	23.8	13.5	19.5	2.7	2.2	4.6	5.7	0.3	1.2	106.03	129.6		
2. Assam	17.0	12.8	3.8	6.0	3.4	5.5	0.3	0.1	0.2	-	-	-	24.7	24.4		
3. Bihar	10.0	5.1	1.4	0.6	1.0	1.1	5.3	0.7	6.1	0.3	0.1	0.1	23.90	7.9		
4. Gujarat	135.5	116.3	30.6	46.3	32.2	54.5	14.1	36.4	17.5	34.6	2.7	7.3	232.60	295.4		
5. Haryana	112.9	89.9	34.5	33.3	16.5	25.8	2.5	0.4	5.5	12.3	1.3	0.9	173.2	162.6		
6. Karnataka	65.7	46.8	13.1	18.1	10.9	13.4	1.3	2.7	1.6	7.0	0.3	2.9	92.9	90.9		
7. Kerala	47.9	25.7	5.8	3.7	2.9	2.9	0.5	1.8	0.6	0.3	-	0.6	57.7	35.0		
8. Madhya Pradesh	45.3	47.5	8.5	20.4	6.6	13.5	4.8	0.5	3.8	3.1	1.0	0.4	70.0	85.5		
9. Maharashtra	85.8	91.5	2.9	31.5	33.4	51.1	23.8	14.9	71.6	121.5	13.2	7.0	230.7	317.4		
10. Orissa	38.6	41.9	6.4	20.3	7.0	12.0	0.7	1.8	4.2	4.0	0.4	-	57.3	80.00		
11. Punjab	95.6	55.3	53.0	53.6	18.8	22.3	5.0	2.5	10.4	4.5	2.6	0.6	185.4	188.80		
12. Rajasthan	41.1	36.3	10.3	18.5	8.2	14.5	3.2	4.0	8.0	4.6	0.6	1.5	71.4	79.4		
13. Tamilnadu	95.1	64.8	16.5	22.3	17.2	22.9	7.2	8.2	12.9	10.7	2.9	2.5	151.8	131.4		
14. Utter pradesh	31.7	25.5	8.9	12.9	5.8	7.3	1.1	0.7	5.0	6.5	1.3	0.2	53.8	52.2		
15. West Bengal	35.8	24.1	5.9	7.1	3.7	8.4	5.5	4.8	9.6	5.7	1.7	1.4	62.2	51.5		
16. All India	55.8	46.6	13.9	18.5	11.3	17.1	5.6	5.2	13.4	19.2	2.2	1.8	102.2	108.4		

Source: Economic Survey of India 1990-91

Annexure 11.4

Sub-wise Growth of Bank Offices in India
(Including private Scheduled Commercial Banks)

Sl.No.	Major States	No. of Offices				% to total No. of Offices			No. of offices per lakh of population			
		June 1969	June 1988	June 1989	December 1990	June 1969	June 1988	June 1989	December 1990	June 1969	June 1988	June 1989
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Andhra Pradesh	567	4308	4432	4569	6.9	7.8	7.8	7.63	1.4	8.3	8.3
2.	Assam	74	1031	1033	1198	0.9	1.9	1.9	2.00	0.5	5.3	5.6
3.	Bihar	273	4317	4466	4780	3.3	7.8	7.8	7.98	0.5	6.3	6.7
4.	Gujarat	752	3163	3257	3361	9.1	5.7	5.7	5.61	3.0	9.1	10.0
5.	Haryana	172	1220	1239	1257	2.1	2.2	2.2	2.10	1.8	9.1	10.0
6.	Karnataka	756	4026	4147	4245	9.1	7.3	7.3	7.09	2.7	11.1	12.5
7.	Kerala	601	2775	2799	2839	7.3	5.0	4.9	4.74	2.9	11.1	11.1
8.	Madhyapradesh	343	3919	4112	4325	4.2	7.1	7.2	7.22	0.9	7.7	7.7
9.	Maharashtra	1118	5117	5327	5541	13.5	9.2	9.3	9.25	2.3	8.3	8.3
10.	Orissa	100	1812	1858	2061	1.2	3.3	3.3	3.44	0.5	7.1	7.1
11.	Punjab	346	2058	2073	2135	4.2	3.7	3.6	3.56	2.4	12.5	12.5
12.	Rajasthan	364	2796	2858	3042	4.4	5.0	5.0	5.08	1.5	8.3	8.3
13.	Tamil Nadu	1060	4039	4162	4284	12.8	7.3	7.3	7.15	2.7	8.3	8.3
14.	Uttar Pradesh	747	7758	7988	8370	9.0	14.0	14.0	13.97	0.9	7.1	7.1
15.	West Bengal	594	3556	3833	4164	6.1	6.5	6.7	6.95	1.2	6.7	7.1
	Total	7777	51995	53654	56171	94.1	93.8	93.8	93.78	..	..	..
	All India	8262	55414	57197	59897	100.0	100.0	100.0	100.00	1.6	..	..

Annexure 11.5
Banking Statistics for Kerala during 1985-91

Rs. Crores)

Year (Ending December)	State Bank Group			Other Nationalised Banks			Total Public Sector Banks				
	Total Deposits	of which NRE Deposits	Total Advance	C. D. Ratio	Total Deposits	of which NRE Deposits	Total Advance	C. D. Ratio	Total Deposits	of which NRE Deposits	Total Advance
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1985	1202.65	354.41	774.71	64.42	1430.61	410.57	849.47	59.2	2633.26	764.98	1624.18
1986	1477.71	463.29	914.04	61.80	1709.48	516.40	988.91	57.0	3186.19	979.69	1902.95
1987	1734.68	563.78	1091.89	62.90	1980.22	593.95	1157.30	58.8	3714.90	1157.73	2249.19
1988	1981.33	643.30	1279.73	64.59	2231.51	684.25	1316.21	58.1	4112.84	1327.55	2595.94
1989	2032.18	666.94	1346.25	66.25	2318.32	670.49	1482.66	63.95	4350.50	1337.43	2828.91
1990	2406.71	800.30	1515.12	64.44	2718.06	832.34	1595.29	58.69	5124.77	1632.64	3146.41
1991 (upto 30-9-1991)	3147.01	1115.52	1772.49	56.0	3510.60	1176.11	1805.92	51.0	6657.61	2261.63	3578.41

Year (Ending December)	Private Banks				Grand Total					
	C. D. Ratio	Total Deposits	of which NRE Deposits	Total Advance	C. D. Ratio	Total Deposits	of which NRE Deposits	Total advance	C. D. Ratio	
(1)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	
	61.88	800.53	79.16	478.09	59.72	3433.79	844.14	2102.27	61.2	
1986	59.72	946.01	176.71	543.43	57.44	4132.20	1156.43	2445.38	59.2	
1987	60.54	1097.65	201.09	648.97	62.54	4752.55	1358.82	2898.16	60.6	
1988	61.62	1217.46	234.56	717.13	58.90	5430.30	1562.11	3313.07	61.6	
1989	65.02	1245.05	246.32	723.56	58.11	5595.55	1583.76	3352.47	63.9	
1990	61.40	1407.58	286.09	791.92	56.26	6532.35	1918.73	3938.33	60.9	
1991 (upto 30-9-1991)	59.75	1836.44	454.48	885.34	48.00	8494.05	2746.11	4463.75	52.6	

Source: Agenda papers of the State Level Bankers' Committee